CHAPTER 4: PRINCE ALBERT SPATIAL DEVELOPMENT FRAMEWORK

4.1 SPATIAL DEVELOPMENT VISION STATEMENT

The vision to guide the 2020 Prince Albert MSDF is to:

"Develop Prince Albert as a place of resilience and environmental quality with a unique and distinctive sense of place - where people choose to live, work and visit, an exemplar in the achievement of sustainable growth"

This vision links to the 2020 Central Karoo District MSDF vision, which is:

"Working together in Sustainable Spatial Development and Growth towards a Resilient Central Karoo"

The municipal wide spatial concept used to realise the above vision, is shown in Figure 4.1 across. There are 5 socio-ecological systems of resilience shown in the shape of a 'Caracal Paw'. Resilience refers to the capability of individuals, social groups, or sub social-ecological systems, not only to live with changes, disturbances, adversities or disasters (such as drought) but to adapt, innovate and transform into new, more desirable configurations.

The palm and heart of the Caracal Paw is Prince Albert Historic Town together with the Swartberg Mountain Range, Swartberg Circle (R328 and R407), various mountain passes, dams, Klaarstroom Historic Town and N12 national and provincial route because together they provide the highest social, economic and political offering, road accessibility, upstream water source and storage and ecological connectivity for the region.

The first toe (Prince Albert Road) is ecologically connected via the Dwyka River and infrastructurally through the N1 & R407. This toe is connected to the second toe (Leeu Gamka Town and Kruidfontein) via the N1 national route, which in turn feeds Prince Albert through the R 407. The third toe is a range of guest farms and farm clusters along the Waterval river. The last toe includes Seekoegat and connects to the 'palm' via the N12 which feeds directly to the towns of Oudsthoorn, George and the broader Garden Route region. Enhancing the resilience of these socio-ecological systems is key to this MSDF.

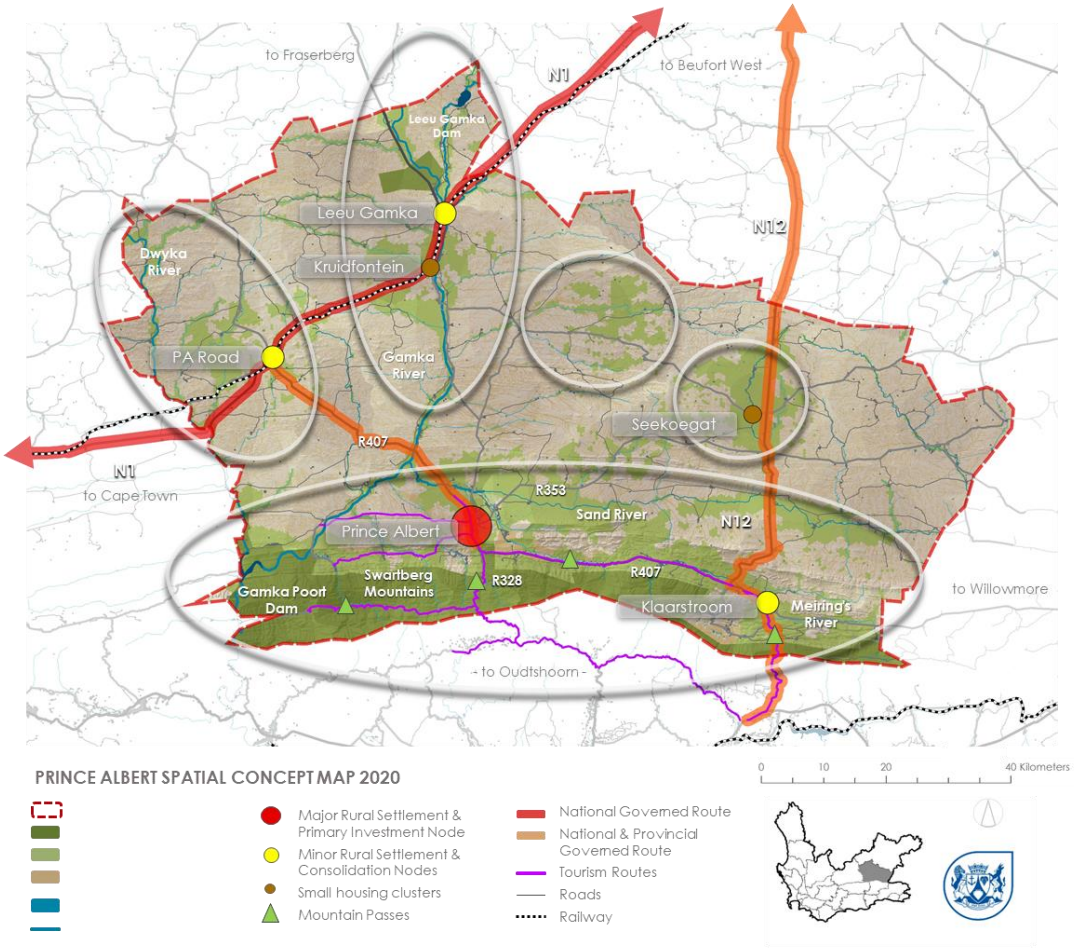


Figure 4.1: Prince Albert Spatial Concept

4.2 SPATIAL DEVELOPMENT STRATEGIES

To achieve the vision statement and spatial concept, four Spatial Strategies (A, B, C and D) for Prince Albert Municipality are listed and explained below.

Strategy A: A region that protects the environment, enhances resilience and capitalises on and honours the Karoo charm in support of a vibrant people and economy;

The competitive advantage of the economy of Prince Albert Municipality is dependent on its natural resource base which underpins the history, character, scenic and heritage appeal of the region as well as the vitality of the tourism industry and limited yet important agricultural, agri-processing, manufacturing and downstream trade and construction economy. The functioning of this economy is directly linked to the availability of water and the health of the ecological systems and hence the protection and enhancement of the environment is one of the main strategies of this SDF. Through municipal policy and programmes, the municipality must therefore protect its natural assets, build its resilience and honour and enhance its tourism economy. The **primary resources to protect, maintain and enhance** are listed below shown and shown in Figure 4.2.

Natural and agricultural resource base: Swartberg Mountains, Prince Albert Historic Town Farms, critically biodiversity and ecological support areas along river corridors of the Gamka, Dwyka, Dorps, Sand, Koekemoers and Meirings rivers and their tributaries, as well as irrigated agricultural production areas associated with these rivers.

Settlements with different economic roles and heritage potential: The towns of Prince Albert, Leeu Gamka, Klaarstroom and Prince Albert Road as well as smaller housing clusters like Seekoiegat and Kruidfontein.

Unique landscapes, lifestyle, and tourism offerings: Prince Albert Town, Church Street, historic town farms, lay water system, monuments and heritage zones, Klaarstroom Town and scenic routes (R407, R353, R328, N12 and Swartberg, Gamkakloof and Meiringspoort passes).

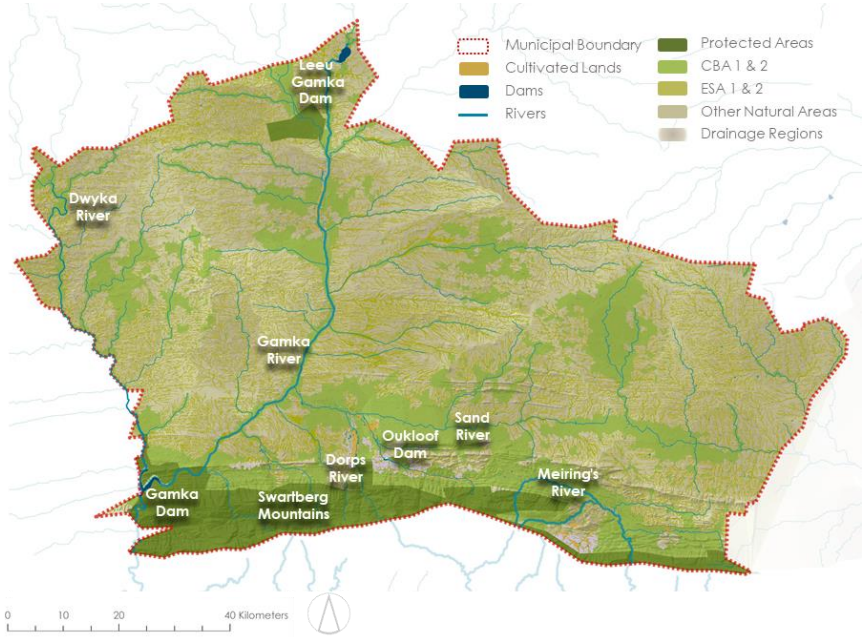


Figure 4.2: Map of Natural Resources for Protection

Figure 4.3: Images of Swartberg Pass and Mountains and Prince Albert Town and Gamkakloof Dam (Source: Princealbert.org.za).

Prince Albert Historic Town Farms: It is worth conceptualising each of the Caracal Paw socio-ecological systems of resilience through the regenerative "Agropolis" model shown in Figure 4.4 across. Without the road system (which brings people, tourists and transported goods to and from market) the settlements in Prince Albert are logically linked to the river catchments and farming system. The first ring can be conceptualised as Prince Albert Town, connected to the Dorps River and lay water system (a flowing stream that supplies the town along street viaducts).

The second ring is the Prince Albert historic town farms made up of rich heritage buildings, sub-tropical fruits orchards and vegetable plots milk production and which provide a unique tourism and farm to market style economy and ensure long-term food security (See Figure 4.5). These are located closest to the town since vegetables, fruit and dairy products must get to market quickly.

A further assessment of the town farms will be conducted, to determine which farms could potentially be subdivided and sensitively developed to accommodate additional dwelling units without undermining the character and feel of the town, as well as agricultural land. This assessment will be included as an Annexure to this SDF.

The third ring is typically for timber and firewood production, which are heavy to transport but essential for urban living. The fourth zone consists of extensive fields for producing grain which can be stored longer and can be transported more easily than dairy products and can thus be located further from the town. The aim is to be aware of this logical system and preserve its shape and functioning through the policies and programmes supported in this MSDF.

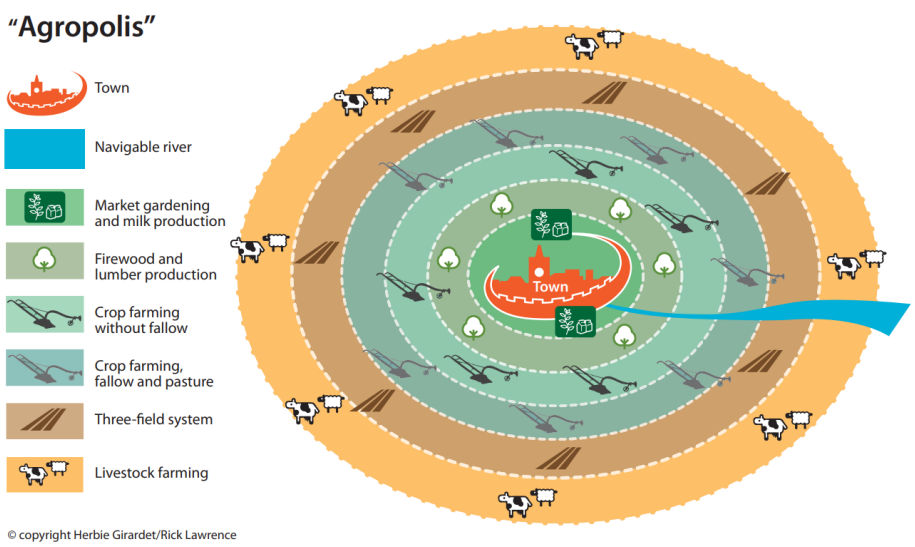


Figure 4.4: The Agropolis Concept (Source; https://www.worldfuturecouncil.org/wp-content/uploads/2016/01/WFC_2010_Regenerative_Cities.pdf)

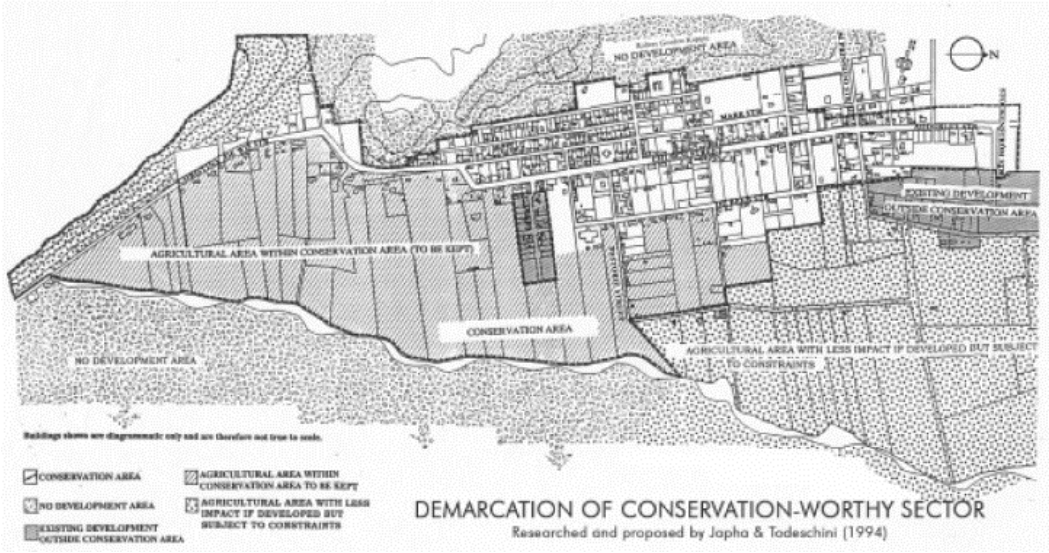


Figure 4.5: Historic Town Farms in Prince Albert (Source: Prince Albert Heritage Inventory (2009-2011)

Strategy B: Improve regional and rural accessibility and mobility for people and goods in support of a resilient economy;

How easily citizens of and visitors to Prince Albert can access the opportunities, services and amenities it offers is a critical precondition for growth of the economy and development of its communities. However, small towns and remote settlements are difficult and expensive to service with public transport, and the absence of public transport systems serving rural communities and outlying settlements fundamentally constrains socio-economic development. Nonetheless, The MSDF promotes an effective and efficient accessibility network that supports a productive interaction between urban and rural settlements as well as within them. Examples of how this plays out conceptually can be seen in Figure 6 across.

What this essentially means is, at the municipal scale, the **regional road and rail network** must support the effective and efficient movement of freight and people in PAM. This requires ensuring that a clear primary and secondary regional route hierarchy is clarified, which means defining the role of the route and how the land uses alongside it are managed to ensure efficient mobility. This network must support the ability of rural dwellers and workers, and those living in smaller rural settlements to be able to access services and amenities both within and outside PAM within a reasonable time.

As part of both encouraging business , as well as encouraging tourism activities and money spent within towns of the region, PAM needs to continue to ensure that it's Towns are conducive to both local and tourist passengers (on foot and in car) as well as attractive for businesses to invest in the area. Given the sparsely populated nature of the municipality school learner transport and mobile services need to be provided.

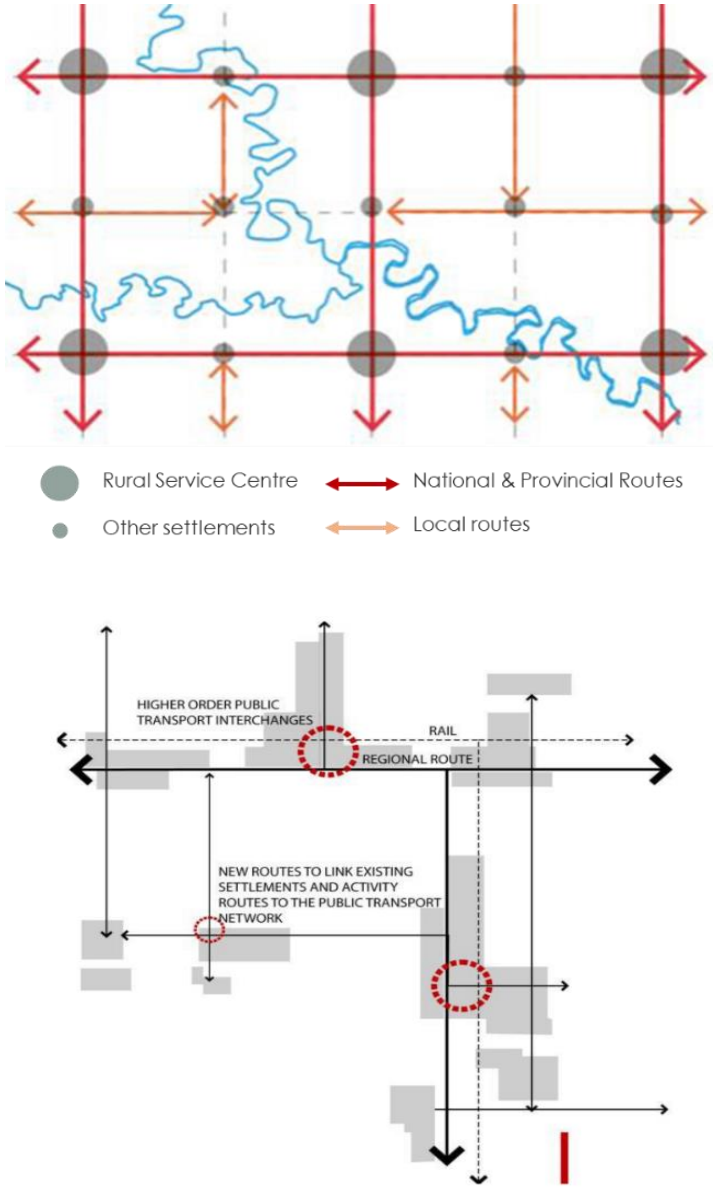


Figure 4.6: Diagram illustrating how regional accessibility can be conceptualised in Prince Albert

Strategy C: Sustainably allocate government resources, infrastructure and facilities in a manner that uplifts and skills people and focusses on maximising impact on the most possible people, while providing a basic level of service for all.

For these reasons, the National Spatial Development Framework (NSDF) (2019) as well as the CSIR provide the national spatial social service provisioning model which assists in the effective, affordable and equitable development of social service delivery, as seen in Figure 4.7. In terms of the wheel, **Prince Albert Town** is classified **as a 'Rural Service Centre'** (yellow) while **Leeu Gamka, Klaarstroom** and **Prince Albert Road** are considered **other settlements** (brown). In this MSDF a further distinction will be made as Prince Albert Town being a **major rural settlement** while the so-called other towns will be called **minor rural settlements** as shown in the Spatial Concept in Figure 4.7).

The overarching aim is to achieve balance within settlements so that they function optimally and within finite resources constraints and preventing situations where low growth settlements such as Leeu Gamka, Klaarstroom and Prince Albert Road expand to accommodate low income persons without the requisite employment growth.

Through establishing a **clear settlement hierarchy**, strategy C aims to ensure that:

1. Opportunities are created for residents to prosper in inclusive and just settlements by preventing outward sprawl, disconnected and low-density development;
2. Municipal financial sustainability becomes a central concern in municipal and government infrastructure investment, growth management and expansion; and
3. Limited resources are used efficiently to protect long term financial sustainability of households, businesses, and government.

The development approach of the municipality should be that infrastructure development and investment is directed where growth is matched to capacity, resources, and opportunity. Specifically, this means:

- Focus government investment, facilities, services and housing opportunities in Prince Albert Town and to a lesser extent Leeu Gamka and Klaarstroom, therefore preventing the creation of new low-income housing developments in low growth, job deficient settlements that have little prospect of creating employment.
- Recognise population dynamics in infrastructure investment (more diverse housing products and opportunities in the centralised locations like Prince Albert Town);

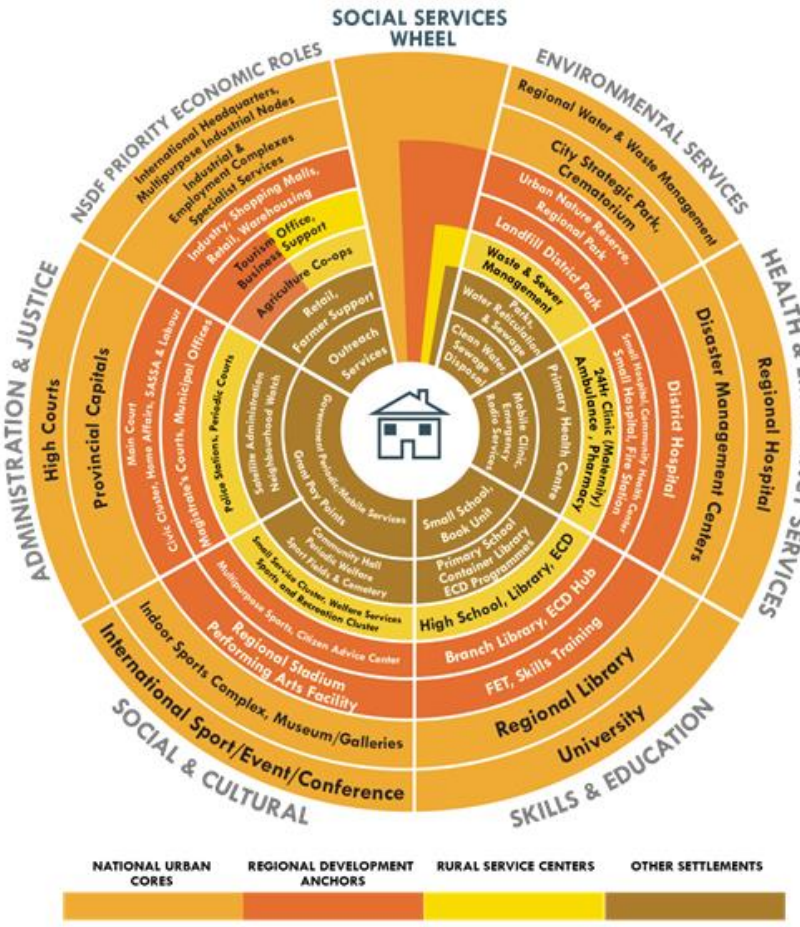


Figure 4.7: NSDF 2019 Social Services Wheel

Strategy D: Partnership-driven governance and administration towards improved financial and non-financial sustainability and resilience.

Strategy D underpins all strategies because an integrated partnership and governance-based approach is required for better coordination, alignment, and impactful planning, budgeting and delivery. The application of an integrated governance approach directly ties in with the application of this SPLUMA principle, which also requires municipalities to pursue good administration practices to enhance and strengthen the spatial planning and land use management systems of the municipality.

Prince Albert, as part of the Central Karoo must seek partnership driven solutions, realising that the challenges are multi-faceted and cannot be addressed only by the local sphere of government. It is therefore required that a range of partnerships be explored to **find a shared service solution** within the Central Karoo that ensures shared financial viability, administrative and logistical burdens associated with servicing a sparse region. Focus areas of potential partnership between all spheres of government and civil society pertaining to PAM include:

- water,
- gas
- energy, and
- rural mobility
- tourism

Figure 4.8 across illustrates how the 4 spatial strategies align with PAM's current IDP Strategic Objectives (SO's). The IDP SO's are already somewhat linked to the SDF strategies because the SDF is a key component of the IDP. Therefore, the strategic objectives of the IDP should evolve over time, to better incorporate the logic of the spatial strategies and policies outlined in this SDF.

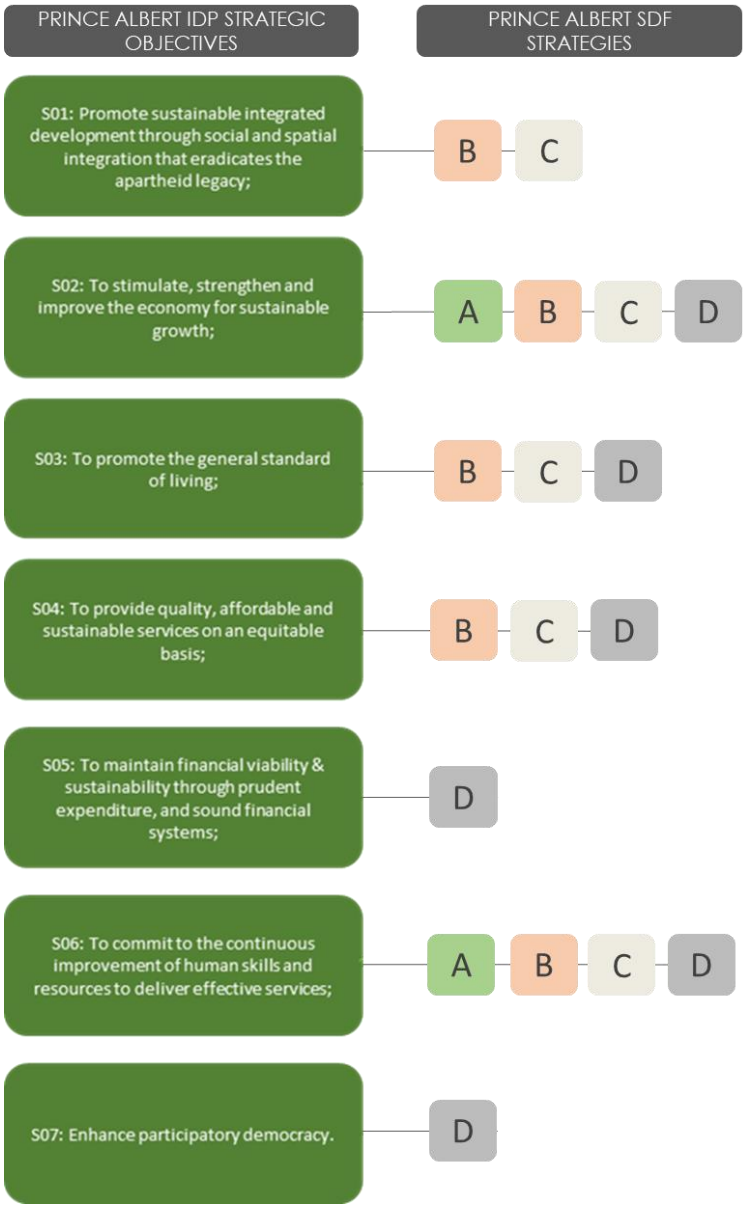
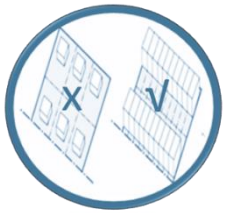


Figure 4.8: PAM and CKDM MSDF Strategies linked to PAM IDP 19/20 Strategic Outcomes

4.3 SETTLEMENT SPECIFIC URBAN DESIGN PRINCIPLES

4.3.1 Spatial efficiency and resilience



Land must be used efficiently to ensure municipal financial sustainability. Low density development typologies are costly for the municipality to service and create inequitable settlements that are costly to live in. Creating settlements that are resilient to change and flexible in times of stress create water-resilient settlements that focus on diversification of water sources.

4.3.2 Inclusivity

An inclusive town values the needs of all people equally. It is a town where people feel comfortable being citizens and have equal access to economic opportunities, quality public amenities and spaces, housing and basic services. Spatial integration is a key ingredient in the pursuit of an inclusive town.

4.3.3 Walkability

Walkable towns promote a public environment with a people focus rather than a car focus and can lead to addressing many social and economic problems through improved social interaction, enhanced physical fitness and diminishing crime.

4.3.4 Flexible and Mixed Use

Positive urban environments allow for a mix of land uses and reflect flexibility in their spatial structures. Flexibility refers to the creation of a spatial structure that can accommodate unexpected demands made upon them over time.

4.3.5 Economically Vibrant

Towns with vibrant economies are ones that promote inclusive economic activity (from small to large; formal and informal). By creating the conditions for a vibrant economy – which provides for increased economic security and financial sustainability – it is possible to contribute to positive individual and social outcomes.

4.3.6 Identity and Sense of Place

When citizens form a strong relationship with a place, then that place becomes a part of who they are — their identity. High quality public spaces can greatly enhance the dignity and pride of citizens, which in turn strengthens their identity and attachment to a place.

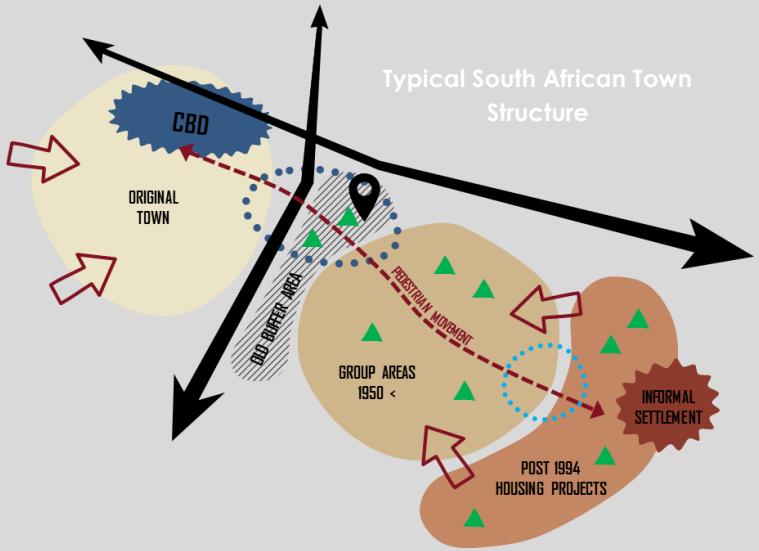
4.3.7 Safety and security

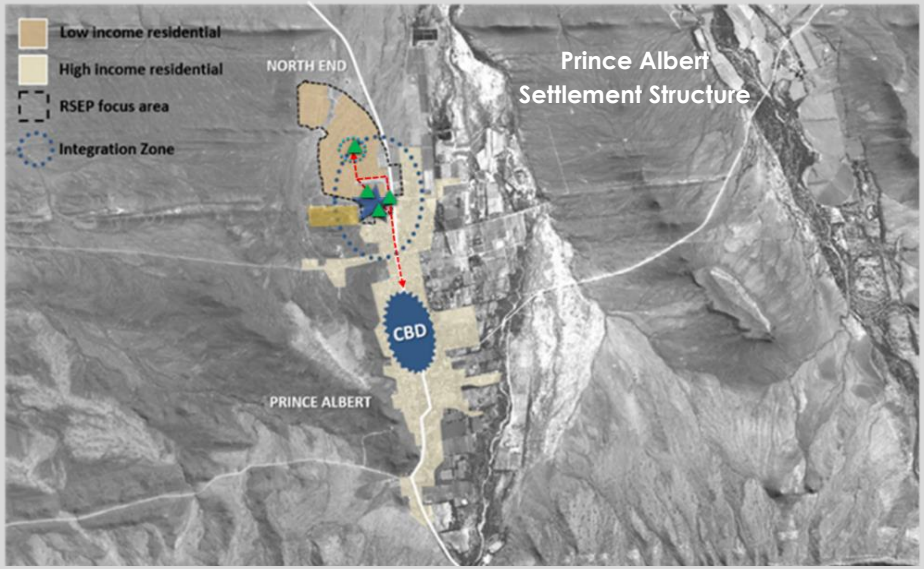
Combating crime and reducing insecurity is essential if development and growth is to occur. Where there is fear, there is no hope. Safety and security is vital for development, investment and access to services and amenities.

4.3.8 Spatial Transformation

Ensuring the apartheid legacy through settlement Restructuring. The reconstruction framework developed by the Western Cape Government Regional Socio-Economic Programme (RSEP) is a practical toolkit for addressing apartheid spatial inefficiencies/spatial divides (where lower income residents live and where jobs and services are usually located. The toolkit, shown on the following page, is applied to Prince Albert Town. The toolkit once applied provide guidelines to connect fragmented towns by finding and upgrading integration zones, primary pedestrian movement routes or township satellite nodes.

WESTERN CAPE GOVERNMENT REGIONAL SOCIO-ECONOMIC PROGRAMME
RECONSTRUCTION FRAMEWORK METHOD





RSEP RECONSTRUCTION FRAMEWORK TOOLKIT

STEP 1: CONTEXTUALISE OVERALL TOWN STRUCTURE

Identify:
- Original residential areas
- 1960s-1980s era residential areas
- RDP & other post-1994 housing projects
- Informal settlements
- CBD
- Industrial areas
- Transition / buffer areas
- Projected growth patterns
- Is centre of town shifting?

PRINCIPLES	TOOLKIT	STEP 2: IDENTIFY COMPONENTS	SYMBOL	STEP 3: IDENTIFY POSSIBLE PROJECTS
Integration & compaction	Transition / integration zone	Identify existence & characteristics of a 'transition zone' between more affluent residential neighbourhoods & expanding low income areas		Transform the 'transition zone' into an 'integration zone' by creating safe & lively linkages, e.g. using pedestrian routes as linkage points; utilise principles of passive surveillance
	Strategic vacant or underutilised land	Investigate existence of any strategic, underutilised land within existing urban footprint		Identify & use sites to promote integration, compaction & service delivery; obtain support & momentum; develop high level concepts and crowd in funding
Access to opportunities, facilities & quality spaces	Government facilities	Locate government facilities, e.g. schools, libraries, sports facilities, police station		Optimise location & align to need, design & cluster facilities planned for construction in foreseeable future,
	Neighbourhood facilities & public spaces	Locate key neighbourhood facilities, e.g. parks, community halls		Identify & promote opportunities for innovative, affordable facilities/public spaces for play, gathering or safety; advocate multi-functionality and mixed use sites
	Satellite/Township/ Economic Nodes	Identify & analyse satellite nodes (retail & service, incl. existing or old/forgotten nodes		Create, revitalise or abandon; improve clustering of public facilities & retail activities to realise the benefits of agglomeration
	Clustered social facilities/hubs	Identify clusters of facilities		Identify projects to implement in collaboration with fellow line departments or other partners that can showcase clustering i.e moving government facilities' and developing multifunctional hubs
Mobility & prioritising the pedestrian	Pedestrian routes & movement patterns (Taxi & Bus Routes)	Identify main pedestrian & public transport routes and stops		Improve quality & multi functionality of main pedestrian routes & transport corridors; focus on TOD; improve convenience, safety; create landmarks; acknowledge gender
Acknowledge informality	Acknowledge informality	Identify informal settlements & informal markets/traders; identify pressure i.t.o urbanisation		Advocate an acknowledgement of informal settlements / markets & development of appropriate, proactive strategies / responses; reinforce & support informal trading areas

STEP 4: PRIORITISE PROJECTS

1. Physical projects: Identify best value-for-money RSEP-aligned projects
2. Alignment/planning project: Identify most viable & urgent value add project aligned to strengths of the RSEP team

STEP 5: IMPLEMENTATION

1. Implement physical project(s)
2. Improve local area planning (& planning alignment) & roll-out

Figure 4.9: Application of the Reconstruction Framework Toolkit to the Town of Prince Albert Municipality (See https://www.westerncape.gov.za/rsep/)

SPATIAL TRANSFORMATION THROUGH OPTIMISED FACILITY LOCATION AND FACILITY CLUSTERING

Figure 4.10 below shows the 2011 Census Car Ownership patterns in Prince Albert Town. Those who own a car are shown in **green** dots while those who don't are shown in **red** dots. The dots also provide a good representation of the number of people living in North End versus South End. The map confirms the RSEP pedestrian survey findings that movement on foot by North End residents is the common mode of transport.

Figure 4.11 shows an example of the mean distances travelled between North End residents and South End residents to the Prince Albert Municipality council and finance offices as well as a range of other education and business services located nearby in Church Street. By re-locating or developing new facilities in the integration zone (See Figure 4.9 where new council chamber and finance offices will be strategically clustered alongside the Thusong Centre), the distance for North End residents travelling on foot is roughly 1.5 km's less one way and 3 kms less in one round trip. Optimised spatial strategies like these, indirectly save time and cost for marginalised residents as well as exposure to potential crime incidents or accidents on foot.

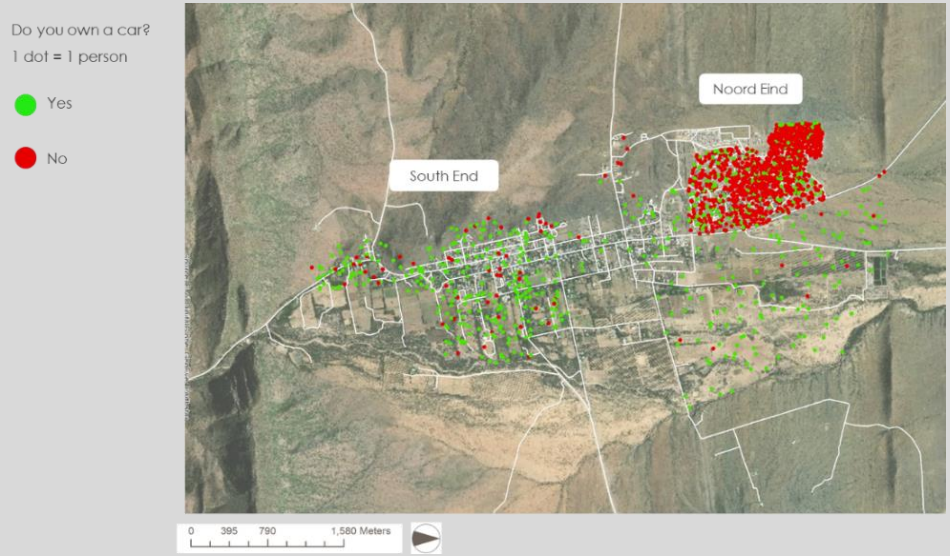


Figure 4.10: 2011 Census Car Ownership Patter in Prince Albert Town

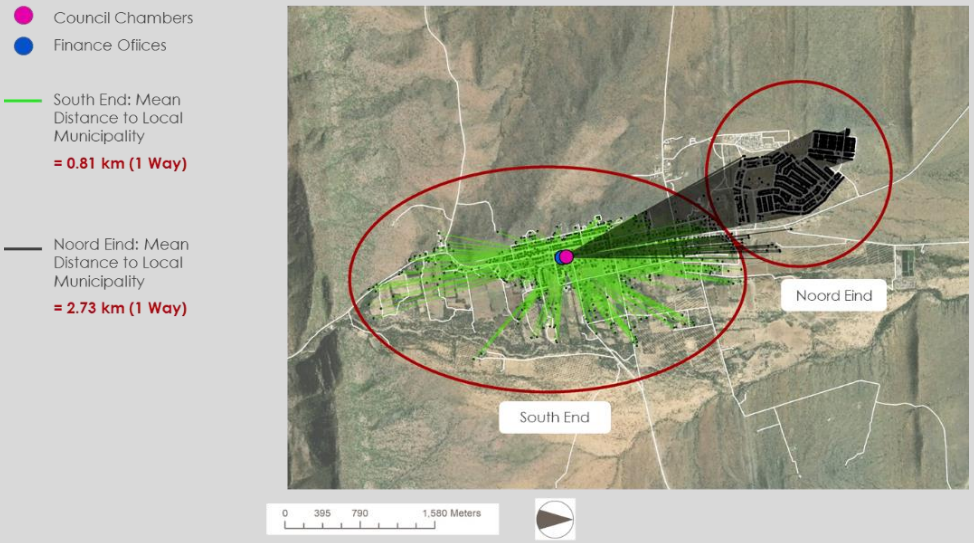


Figure 4.11: Location of Council and Finance offices and distance from North and South End

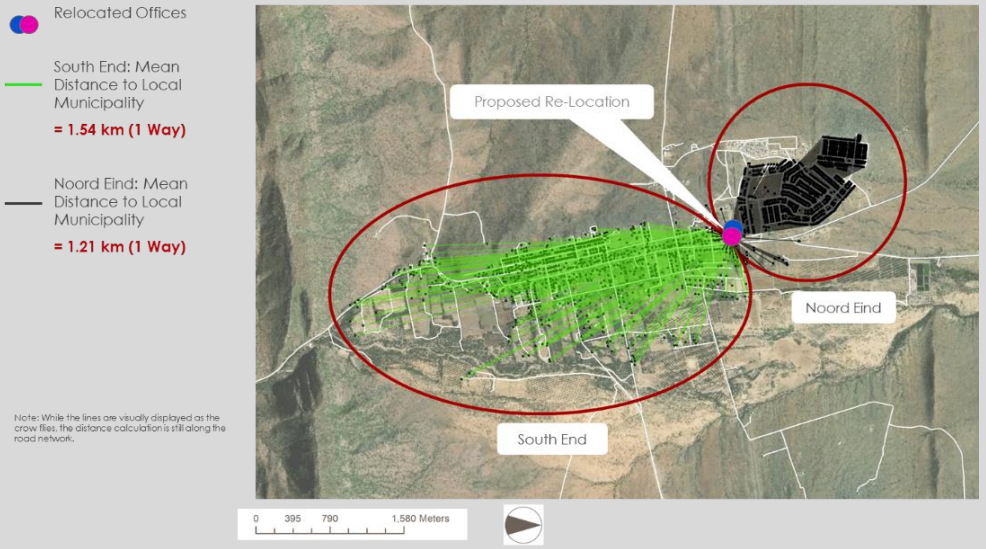


Figure 4.12: New Location of Council and Finance offices and new distance from North and South End

4.4 FUTURE POPULATION, HOUSING AND LAND DEMAND

As shown in Table 4.1 across, several documents use different population and household estimates and projections which makes it problematic to find consensus and adequately forecast growth and land requirements, as well as determine future infrastructure investment. What many documents do have in common is that there is a slowing growth rate, averaging **2.2%** (2001-2011) and **1.73%** (2011-2016) and more recently **1.1%** in the Prince Albert IDP, **0.67%** in the 2019 MERO Report and **0.8**% in the 2020 MERO Report.

The Western Cape Socio-Economic Profile for Local Government (SEP-LG) Prince Albert Municipality (SEP-LG 2020) data is based on the Stats SA Mid-Year Population Estimate (MYPE) 2019, and MERO 2020 is based on the MYPE 2020. The Western Cape Provincial Population Unit (PPU) also developed an adaptable methodology that caters for provincial population estimates demands that stretch over a longer forecast period than provided by StatsSA and have made it available on a lower geographical level, than what the national statistics organisation provides.

The Sub Place (SP) and Enumerator Area (EA) spatial data from the Provincial Population Unit appears to provide the **most acceptable median 2020 base population** of the various documents and because it is the **most disaggregated data set** amongst all sector reports and master plans it will be a useful baseline for developing the Capital Expenditure Framework in Chapter 5 of this MSDF. This data puts the total 2020 Municipal population at **14 371** broken up as **11 326 urban and 3045 rural.** Assuming a municipal wide average household size of 3.8, the total number of houses in 2020 would be **3781,** which is notably somewhat lower than what has previously been reported in other documents.

The SP's and EA's are mapped per town (labelled with 2020 population estimates) on the following page in Figures 4.13 - 4.16. Thereafter, Table 4.2 shows the 10-year (2020-2030) population and household projections for what is considered in this MSDF as a low (0.67%), medium (1.1%) and high (1.73%) growth scenario. The third last column in Table 4.1 shows the 2020 housing waiting list per town. This is considered the 'backlog' which is added to the 'natural growth' to determine the total housing demand and future potential land requirements. The total municipal waiting list is 1201 units which will require an HSDG allocation of roughly R 229 million and R 118.5 million worth of social infrastructure (normally around 50% of the housing infrastructure and top structures, but it requires detail assessment).

Table 4.1 Population, household and growth estimates from various documents

Document	Growth Rate	Population Size	Number of Households	Household Size
Prince Albert IDP 2019/20 uses the DSD's 2018	1.1%	14 607 (year 2020)	4183 (year 2016)	3.5
Sub Place (SP) and Enumerator Area (EA) spatial data from WCG: DSD, 2020	1.1%	14 371 (2020)	3781 (year 2020)	3.8
2019 Municipal Economic Review and Outlook (MERO) WCG Treasury	0.67% (2019)	14 510 (year 2020) 14 597 (year 2021) 14 694 (year 2022) 14 799 (year 2023) 14 911 (year 2024)	3780 (year 2020) 3821 (year 2021) 3873 (year 2022) 3924 (year 2023) 3976 (year 2024)	3.8
2020 Municipal Economic Review and Outlook (MERO) WCG Treasury	0.8% (2019-2023)	14 164 (2020) 14 253 (2021) 14 368 (2022) 14 551 (2023)		3.8
Central Karoo District SDF 2020 DEA&DP Spatial Planning	1.73% (2020-2030)	15 295 (2020)	4634 (year 2020)	3.3
Prince Albert 2014 SDF	2.2% projection used	15 978 (2020)	4792 (year 2020)	3.33
The 2010 Central Karoo District Municipality Bulk Infrastructure Master Plan	1%	11 364 (urban only, year 2020)	2584 (urban only, year 2020)	4.3

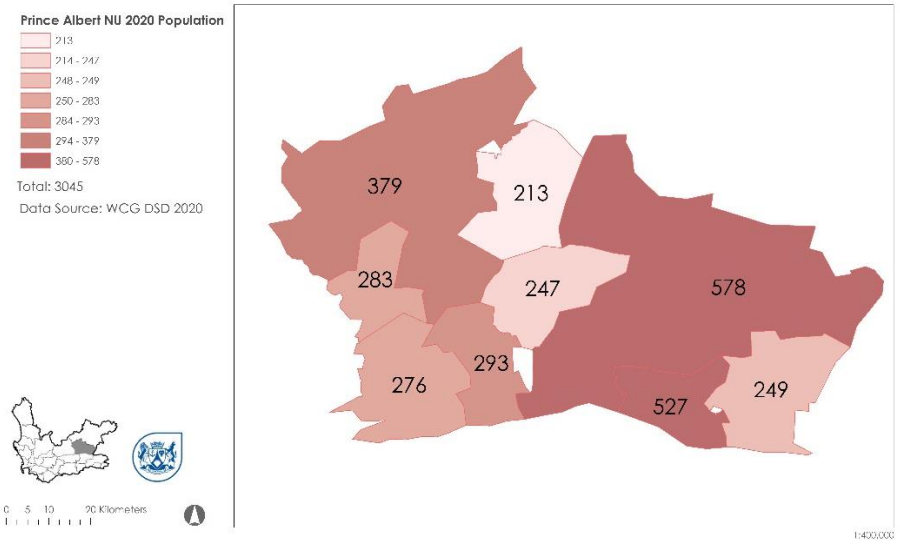


Figure 4.13: Map of Prince Albert Non-Urban (NU) Projected 2020 Sub-Place and Enumerator Population (Data sourced from WCG: DSD; 2020)

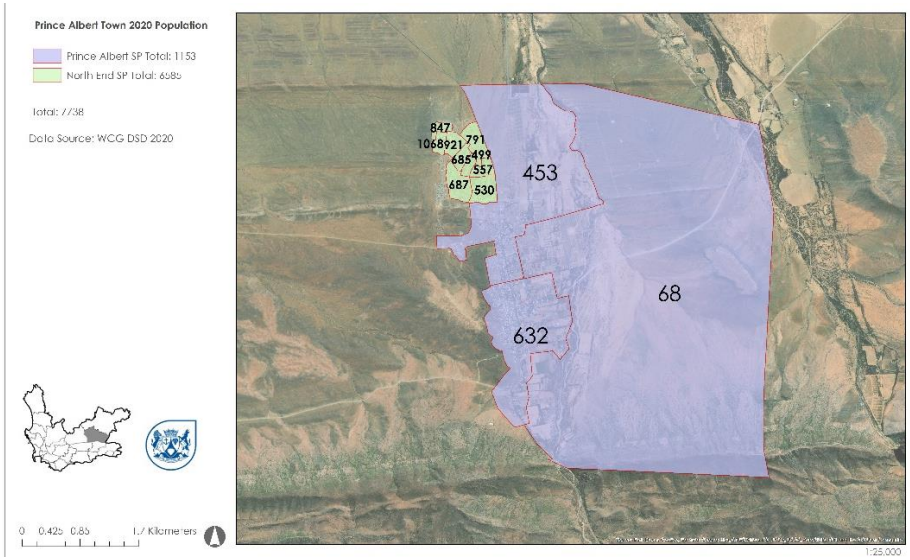


Figure 4.14: Map of Prince Albert Town Projected 2020 Sub-Place and Enumerator Population (Data sourced from WCG: DSD; 2020)

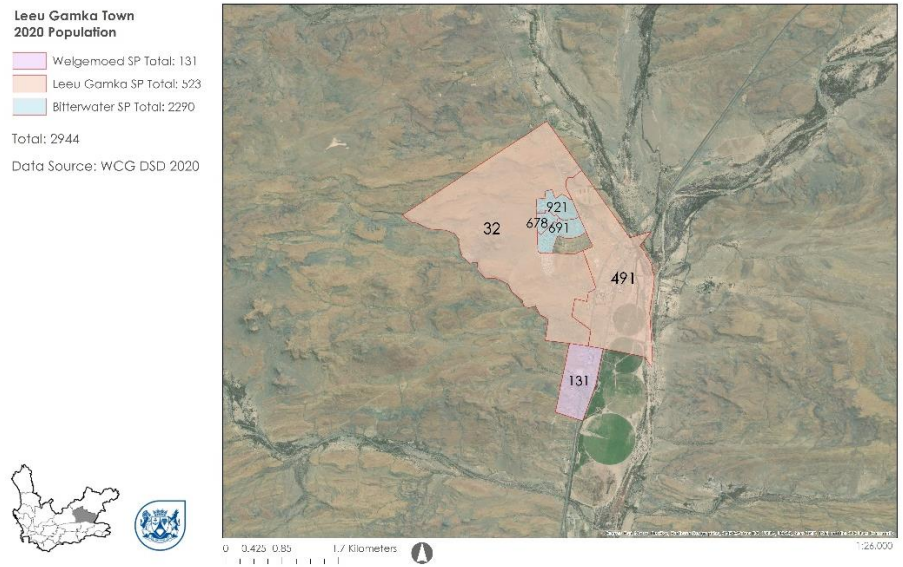


Figure 4.15 Map of Leeu Gamka/Bitterwater/Welgemoed Projected 2020 Sub-Place and Enumerator Population (Data sourced from WCG: DSD; 2020)

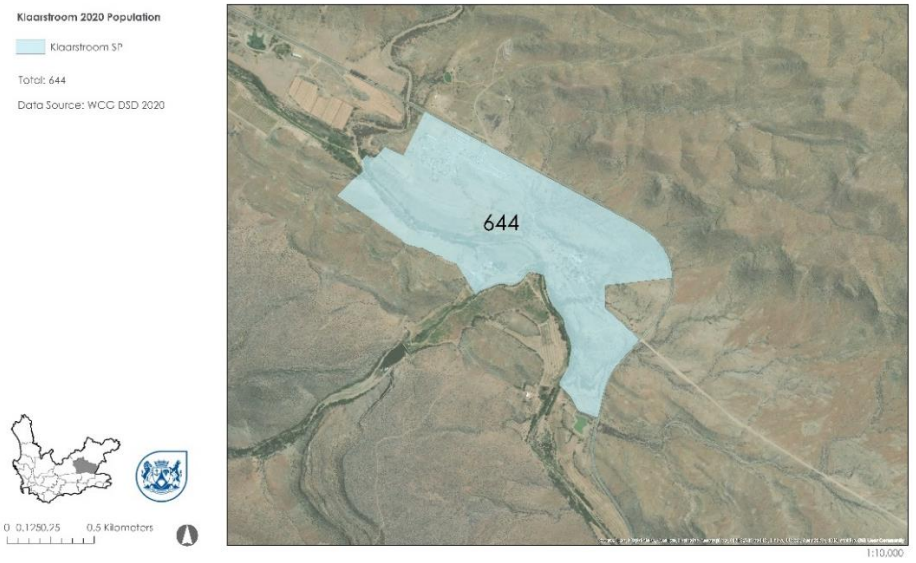


Figure 4.16: Map of Klaarstroom Projected 2020 Sub-Place and Enumerator Population (Data sourced from WCG: SD; 2020)

Table 4.2: Projected 10 year (2020-2030) Population and Household Growth and Land Requirement Scenario's for each Sub Place and Town – reconciled with 2020 Housing Waiting List

Area	Growth Rate %	Rank	Base Population 2020	Base No. of Households 2020 (Household size 3.8)	Projected Population 2025	No. of Households 2025	Projected Population 2030	No. of Households 2030	Additional People 2020-2030	Additional Households 2020-2030	Land Required @ 25duha	2020 Housing Waiting List	2020-2030 Total Housing Demand	Land Required (ha)
Prince Albert Town SP	0.67	Low	1153	303	1192	314	1233	324	80	21	0.84	718	859	34
	1.1	Med			1218	321	1287	339	134	35	1.41			
	1.73	High			1257	331	1371	361	218	57	2.29		955	38
North End SP	0.67	Low	6595	1736	6820	1795	7052	1856	457	120	4.81			
	1.1	Med			6968	1834	7362	1937	767	202	8.07		1103	44
	1.73	High			7191	1892	7841	2063	1246	328	13.11			
Bittewater SP	0.67	Low	2290	603	2368	623	2449	644	159	42	1.67	335	389	16
	1.1	Med			2419	637	2556	673	266	70	2.80			
	1.73	High			2497	657	2723	716	433	114	4.55		425	17
Welgemoed & Leeu Gamka SP	0.67	Low	654	172	676	178	699	184	45	12	0.48			
	1.1	Med			691	182	730	192	76	20	0.80		481	19
	1.73	High			713	188	778	205	124	33	1.30			
Klaarstroom	0.67	Low	644	169	666	175	689	181	45	12	0.47	144	156	6
	1.1	Med			680	179	719	189	75	20	0.79		164	7
	1.73	High			702	185	766	201	122	32	1.28		176	7
Non-urban	0.67	Low	3045	801	3149	829	3256	857	211	56	2.22	4	60	2
	1.1	Med			3217	847	3399	894	354	93	3.73		97	4
	1.73	High			3320	874	3620	953	575	151	6.05		155	6
Total Municipal Area	0.67	Low	14381	3784	14871	3913	15378	4047	997	262	10.49	1201	1463	59
	1.1	Med			15194	3998	16053	4225	1672	440	17.60		1641	66
	1.73	High			15680	4126	17097	4499	2716	715	28.59		1916	77

Note: The Sub Place (SP) and Enumerator Area (EA) spatial population data from WCG: DSD Provincial Population Unit 2020 is used as a baseline. Three scenarios are projected from each baseline. The average household size 3.8 and the land required is based on 25 dwelling units per hectare. The 'estimated' Total Housing Demand was calculated by taking the number of additional households 2020-30 per scenario and adding this to the 2020 housing waiting list (backlog).

The following population findings can be summarised from Table 4.2:

- By **2030** the **total population for Prince Albert** municipal area is projected to be 15 378 (low growth), 16 053 (medium growth) and 17097 (high growth) people. The municipality will grow by between 997 (low), 1672 (medium) and 2716 (high) additional people by 2030. At an average household size of 3.8, this would imply between roughly 261-715 additional households. When reconciling with the 2020 housing waiting list (1201 applicants for the entire municipality), the 2020-2030 total housing demand for the total municipal area is between 1463 and 1916 houses which will require between 59-77 hectares of additional land for housing.

- By **2030** the **total population of Prince Albert Town** is projected to be between 8285 (low growth), 8649 (medium growth) and 9212 people (high growth). Prince Albert main town, with a 2020 population of 1153 people will naturally grow by between 80 (low growth), 134 (medium growth) and 218 (high growth) additional people between 2020 and 2030. North End, with a 2020 population of 6595 people, will naturally grow by between 457 (low growth), 767 (medium growth) and 1246 additional people (high growth) between 2020 and 2030. At an average household size of 3.8, this would imply between roughly 21-50 additional households in the main town and 120-328 additional houses in North End.

    - When reconciling with the 2020 housing waiting list (718 applicants for Prince Albert town), the 2020-2030 total housing demand for Prince Albert Town is between 859 and 1103 houses which will require between 34-44 hectares of additional land for housing.

- By **2030** the **total population of Leeu Gamka/Welgemoed/Bitterwater** is projected to be between 3148 (low growth), 3286 (medium growth) and 3501 people (high growth). Leeu Gamka/Welgemoed areas will naturally grow by between 45 (low growth), 76 (medium growth) and 124 (high growth) additional people between 2020 and 2030. Bitterwater will naturally grow by between 159 (low growth), 266 medium growth and 433 (high growth) additional people between 2020 and 2030. At an average household size of 3.8, this would imply between roughly 12-33 additional households in Leeu Gamka/Welgemoed and between 42 to 114 additional houses in Bitterwater.

    - When reconciling with the 2020 housing waiting list (335 applicants for this area), the 2020-2030 total housing demand for this area is between 389 to 481 houses which will require between 16 to 19 hectares of additional land for housing.

- By **2030** the **total population of Klaarstroom** is projected to be between 689 (low growth), 719 (medium growth) and 766 (high growth) people. Klaarstroom will naturally grow by between 45 (low growth), 75 (medium growth) and 122 additional people (high growth) between 2020 and 2030. At an average household size of 3.8, this would imply between roughly 12-32 additional households.

    - When reconciling with the 2020 housing waiting list (144 applicants for this area), the 2020-2030 total housing demand for Klaarstroom is between 156 and 176 houses which will require between 6-7 hectares of additional land for housing.

It should be recognised that these population, household and land projections are based on several assumptions, such as:

- the population growth rate scenarios continuing in a linear manner
- the 2020 housing waiting list remaining its current size and not been cleaned up to remove or add applicants,
- that all households average 3.8 people per household and
- that the average gross dwelling unit density will be 25 dwelling units per hectare in all areas.

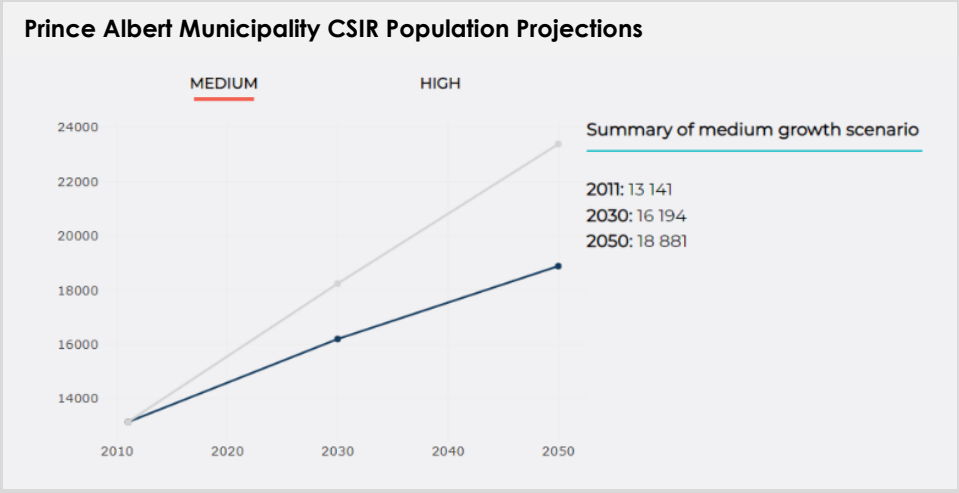
For future clarity purposes, it is worth cross checking the above population scenario numbers on the recent and continual work done on population dynamics by the CSIR, who are using the CSIR Settlement Growth Model available online at https://riskprofiles.greenbook.co.za/. A short example on the following page is shown for the findings of Prince Albert Municipality as well as the towns. The model predicts a total municipal population of 16 194 people by 2030 and assigns growth pressures to each settlement. The findings are extremely close to those in Table 4.2 although not as further disaggregated.

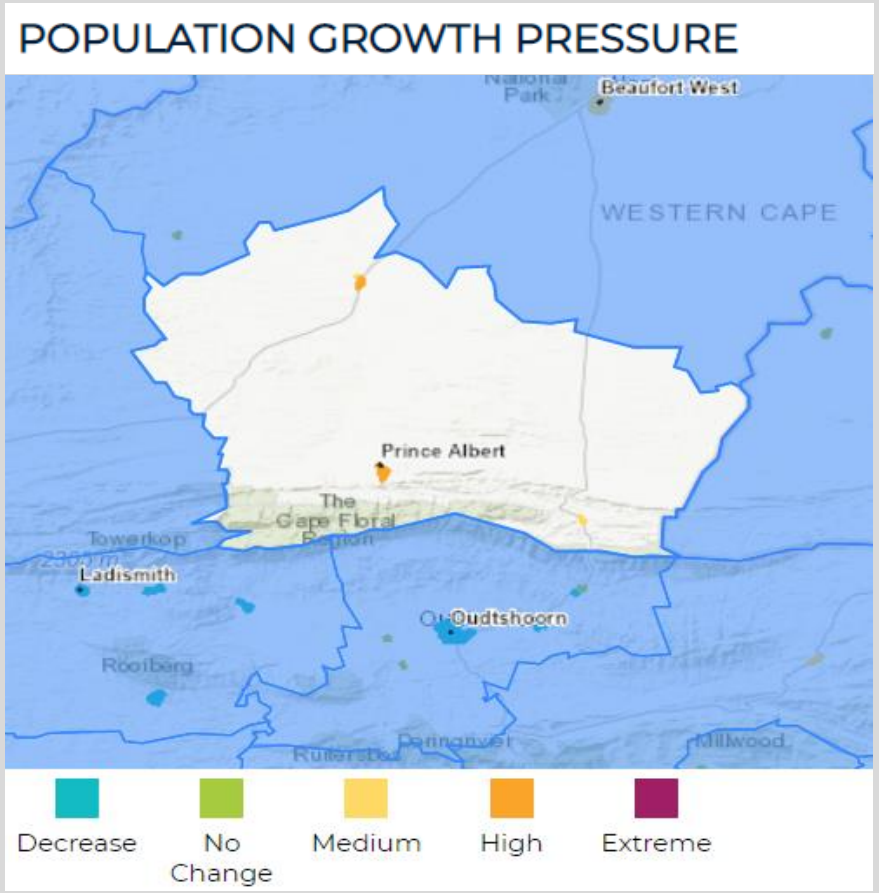
CSIR SETTLEMENT GROWTH MODEL

The core modelling components of the settlement growth model are the demographic model and the population potential gravity model. The demographic model produces the long-term projected population values at the national, provincial and municipal scale using the Spectrum and Cohort-Component models.

The spatially coarse demographic projections were fed into the population potential gravity model, a gravity model that uses a population potential surface to downscale the national population projections, resulting in 1x1 km resolution projected population grids for 2030 and 2050. The gravity potential model assumes Tobler's first law of geography: everything is related to everything else, but near things are more related than distant things.

Using the innovative settlement footprint data layer created by the CSIR, which delineates built-up areas, settlement-scale population projections were aggregated up from the 1 x 1km grids of South African projected population for a 2030 and 2050 medium and high growth scenario. These two population growth scenarios (medium and high) are differentiated based on their in- and out-migration assumptions.





Town	Pressure	2011	2030	2050
Klaarstroom	Medium	590	699	795
Prince Albert	High	7,055	9,567	11,777
Leeu Gamka	High	573	770	943
Bitterwater	Medium	2,201	2,437	2,645

Figure 4.17: CSIR 2020 population profile for Prince Albert Municipality (source: https://riskprofiles.greenbook.co.za/)

4.5 FUTURE FACILITY DEMAND

Much of the population and housing growth is likely to take place in the town of Prince Albert (particularly North End) and Leeu Gamka (particularly Bitterwater). Applying the total municipal population size and housing demand figures to the CSIR social facility demand calculator, the facilities listed below will be required per growth scenario and will need to be largely located in the town of Prince Albert. The thresholds, land requirements and approximated costs for these facilities are shown in Table 4.3 across

Low Growth Scenario (0.67%):

+ 2 new ECD facilities
+ 1 Primary School
+ 1 Community Sports field
+ 2.5 New open spaces / parks
+ 1 New cemetery

Medium Growth (1.1%) Scenario:

+ 2.5 ECD facilities
+ 2 Primary Schools
+ 1 Community Sports field
+ 3 New open spaces / parks
+ 1 New cemetery

High Growth (1.73%) Scenario:

+ 3 ECD facilities
+ 1 Secondary School
+ 2 Primary Schools
+ 1.5 Community Sports field
+ 3.5 New open spaces / parks
+ 1.5 Cemeteries

Any variance in these assumptions will change the future growth and development scenario, which is also intimately tied to and related to the future availability of water in the region, the growth or decline of the agricultural sector, migration and any major regional development initiatives (such as shale gas development) that may occur. Therefore, these figures are indicative and approximate and assist in identifying future land for development within the plans. It should be noted that both commercial and industrial new land requirements have not been approximated, although the SDF maps do make provision for this

Table 4.3: CSIR Social Facility Thresholds, Land Requirements and Costs

Facility Type	Threshold Population		Threshold Households (No. of Households - assuming 3.54 ppl/hh)		Land Required	Approx. Cost per facility
	Lower limit	Upper limit	Lower limit	Upper limit	(ha)	
Early Childhood Development Centres	2400	3600	674	1011	0.1	R 2,000,000.00
Primary Schools	3000	4000	843	1124	2.8	R 60,000,000.00
Secondary Schools	6000	10000	1685	2809	2.6	R 60,000,000.00
Community Sports Field	5000	60000	1404	16854	2	R 8,000,000.00
Local Library	10000	70000	2809	19663	0.2	R 8,000,000.00
Community Health Care Centre	20000	120000	5618	33708	0.75	R 70,000,000.00
District Hospital	300000	900000	84270	252809	9	R 300,000,000.00
Children's Homes	42000	60000	11798	16854	2	R 10,000,000.00
Homes for the Aged	65000	65000	18258	18258		R 10,000,000.00
Community Halls / Centres	10000	25000	2809	7022	0.5	R 6,000,000.00
Municipal Offices	50000	50000	14045	14045		R 15,000,000.00
Firestations	60000	60000	16854	16854	1.2	R 60,000,000.00
Public Open Space (Community Parks)	2000	10000	562	2809	0.9ha/1000 people	R 5,000,000.00
Cemetries	5000	100000	1404	28090	10	R 20,000,000.00
Police Stations	25000	60000	7022	16854	0.1	R 50,000,000.00

4.6 MUNICIPAL WIDE SPATIAL POLICIES

The purpose of this section is to give expression to the spatial strategies by framing a set of spatial policies that must be used to inform land use planning, infrastructure development and rural and urban development decision making within PAM. The policies are listed below after each relevant spatial strategy (which links to PAM's IDP Strategic Objectives).

STRATEGY A: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

- POLICY A1: PROTECT CRITICAL BIODIVERSITY AREAS, ENVIRONMENTAL SUPPORT AREAS & NATURAL ENVIRONMENT TOWARDS A RESILIENT MUNICIPALITY
- POLICY A2: ENVIRONMENTAL OFFSETTING & BIODIVERSITY STEWARDSHIP
- POLICY A3: PROMOTE AND DEVELOP A WATER RESILIENT MUNICIPALITY
- POLICY A4: CLIMATE CHANGE ADAPTATION AND DISASTER MITIGATION
- POLICY A5: TOURISM ENHANCEMENT & PROTECTION OF SCENIC ASSETS
- POLICY A6: PROMOTE RESILIENT, SUSTAINABLE AGRICULTURE & AGRI-PROCESSING
- POLICY A7: SHALE GAS DEVELOPMENT (SGD)
- POLICY A8: LAND REFORM SUPPORT

STRATEGY B: IMPROVE REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT ECONOMY

- POLICY B1: IMPROVE INTER SETTLEMENT CONNECTIVITY
- POLICY B2: RURAL MOBILITY & SCHOOL LEARNER TRANSPORT
- POLICY B3: TOWN IMPROVEMENT PLANS FOCUSSED ON NON-MOTORISED TRANSPORT, SAFETY AND GREEN NETWORKS

STRATEGY C: ALLOCATE GOVERNMENT RESOURCES, INFRASTRUCTURE AND FACILITIES IN A MANNER THAT UPLIFTS AND SKILLS PEOPLE AND FOCUSSES ON MAXIMISING IMPACT ON THE MOST POSSIBLE PEOPLE, WHILE PROVIDING A BASIC LEVEL OF SERVICE FOR ALL

- POLICY C1: ESTABLISHING A CLEAR SETTLEMENT HIERARCHY
- POLICY C2: URBAN EDGE POLICY
- POLICY C:3 FACILITY CLUSTERING & DESIGN PROTOCOL LINKED TO A CLEAR NODAL HEIRARCHY

STRATEGY D: PARTNERSHIP-DRIVEN GOVERNANCE AND ADMINISTRATION TOWARDS IMPROVED FINANCIAL AND NON-FINANCIAL SUSTAINABILITY AND RESILIENCE

- POLICY D1: SHARED SERVICE CENTRE FOR THE CENTRAL KAROO
- POLICY D2: INTEGRATED PLANNING, BUDGETING AND IMPLEMENTATION

4.6.1 STRATEGY A: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

Prince Albert should seek to become a resilient municipality that can adapt to and mitigate against the negative effects of climate change, increasing temperatures, reduced rainfall and the host of downstream impacts on the economy and society at large.

POLICY A1: PROTECT CRITICAL BIODIVERSITY AREAS, ENVIRONMENTAL SUPPORT AREAS & NATURAL ENVIRONMENT TOWARDS A RESILIENT MUNICIPALITY

Designated **Spatial Planning categories (SPCs)** must be considered in terms of land use management. This, in part, should ensure that Critical Biodiversity Areas (CBAs) and protected areas are conserved and, where applicable, restored. Land use change should always favour rehabilitation of indigenous species in degraded areas that have the potential to connect protected areas, CBAs and Ecological Support Areas (ESA's).

Policy A1 Guidelines:

(i) Manage land use management in the rural areas of PAM through the application of **Spatial Planning Categories (SPC's)** as set out in the Western Cape Rural Land Use Planning Guidelines and the Western Cape Biodiversity Spatial Plan (2017), and ensure that all investment in Prince Albert Municipality seeks to underpin the principles of spatial sustainability and spatial resilience. Greater detail on each SPC layer can be found in the Western Cape Rural Land Use Guidelines.

Protect and conserve important terrestrial, and aquatic habitats (rivers and wetlands) as identified in the Biodiversity Spatial Plan maps in Figure 4.18 at the municipal scale and Figure 4.19 - 4.22 at the town scale. It is important to note on this point that the Western Cape Govenrment Department of the Premier have recently consolidated all spatial data in to a "Spatial Data Enterprise" (SDE) warehouse which links to an online provincial viewer similar to Cape Farm Map viewer. Upon request PAM could be provided an account to view and zoom into the SPC's data online without having to continuously refer back to the maps in this section.

With regards to **interpreting the Guideline,** the table in the map shows how to convert the Protected Areas, Critical Biodiversity Areas, Ecological Support Areas and other natural areas to the various Spatial Planning Categories set out in the Western Cape Biodiversity Spatial Planning Map.

(ii) The following mechanisms may be implemented when considering ways of formally protecting endangered and irreplaceable biodiversity. These mechanisms include:

- **Private Land**: involving Stewardship Contract Nature Reserves, Biodiversity Agreements, or Protected Environments;
- **Municipal Land:** Nature Reserve or Municipal Biodiversity Agreement (e.g. City of Cape Town);
- **Forest Nature Reserves** through the Natural Forest Act and Wilderness Areas into Wilderness Act;
- **Title deed restrictions** where land has been designated under the Stewardship Programme or declared a Nature Reserve or Protected Environment;
- **Contractual National Parks**: the zoning of private properties to Open Space III could be used as a mechanism for conservation in terms of the 2016 DEA&DP Standard Draft Zoning Scheme By-Law. Financial and non-financial incentives have the potential to be linked to the conservation on private land with title deed restrictions.

(iii) In line with WC DEA&DP guidelines for rural land use development, new investment in rural areas should not:

- Have significant impact on biodiversity;
- Alienate unique or high value agricultural land;
- Compromise existing farming activities;
- Compromise the current and future use of mineral resources;
- Be inconsistent with cultural and scenic landscapes within which it is situated;
- Involve extensions to the municipality's reticulation networks;
- Impose real costs or risks to the municipality delivering on their mandate; and
- Infringe on the authenticity of the rural landscape and heritage assets.

The following land uses are permitted per Spatial Planning Category in the Central Karoo District, as per the following Spatial Planning Categories (SPC's):

- **Core 1 Areas**: **Critical Biodiversity Areas** (CBA) and protected areas, these include habitats classified as highly irreplaceable, critically endangered, or endangered terrestrial (land), aquatic (rivers, wetlands, and estuaries) and marine habitats. For example, areas such as Swartberg mountains, protected area North West of Leeu Gamka. It also includes essential biological corridors vital to sustain their process and pattern functionality. These areas must be regarded as "no-go" for development and must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. There should be no further loss of natural habitat and degraded areas should be rehabilitated. In Prince Albert Municipality CBA's are also typically found in conjunction with where the towns and settlements are located and because of this, are denoted as so called "socio ecological regions of importance" in the spatial concept map in Figure 4.1.

- **Core 2 Areas**: Consists of two areas: **Critical Biodiversity Area 2 (Degraded) and Ecological Support Area 1.** These areas are in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems, or ecological processes and infrastructure. These areas should be maintained or rehabilitated into a natural or near-natural state with no further loss of natural habitat.

- **Buffer 1 Areas**: These areas may be degraded but still **play an important role in supporting the functioning of Core Areas** (either Protected Areas or CBAs), and are essential for delivering ecosystem services. In Prince Albert they are typically found in the remote landscapes of the municipality. These areas should be restored and/or managed to minimize impact on ecological infrastructure functioning; especially soil and water-related services. Two components of the rural landscape make up Buffer 1 areas:

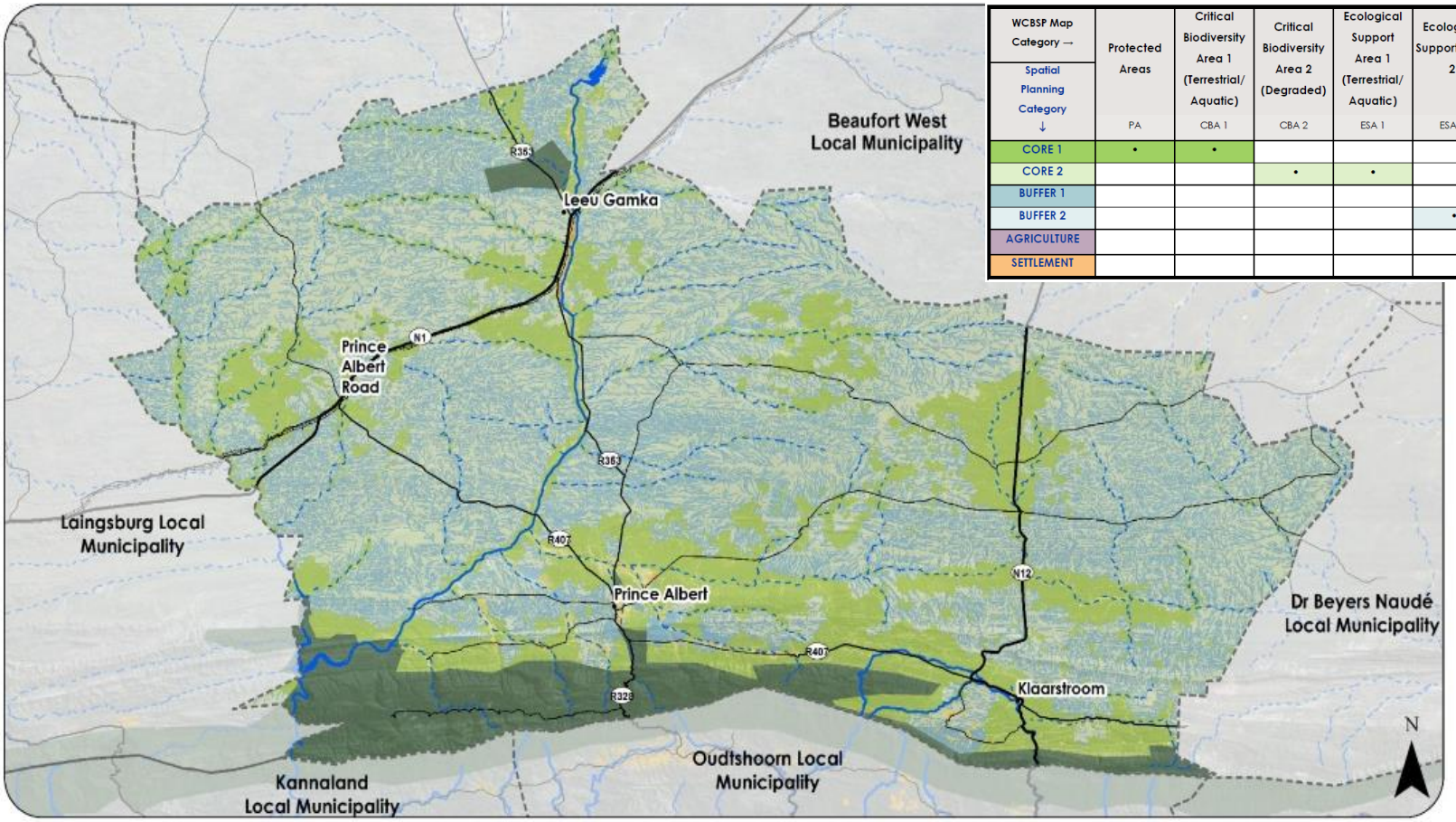
    - **Ecological Support Area 2:** Restore and/or manage to minimize impact on ecological infrastructure functioning; especially soil and water-related services.

    - **Other Natural Areas:** Minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high impact land-uses.

- **Buffer 2 Areas**: This category includes areas designated as **Other Natural Areas**, located in an extensive and/or intensive agriculture matrix (i.e. grazing and livestock production) as the dominant land use. The Buffer 2 SPC requires that habitat and species loss is minimized and that ecosystem functionality is preserved through strategic landscape planning. Buffer 2 areas offer flexibility in permissible land-uses, but some authorisation may still be required for high-impact land-uses.

- **Agriculture Areas**: Comprises of existing and potential intensive agriculture footprint (i.e. homogenous farming areas made up of cultivated land and production support areas). It includes areas in which significant or complete loss of natural habitat and ecological functioning has taken place due to farming activities. Existing and potential agricultural landscapes should be consolidated and protected; sustainable agricultural development, land and agrarian reform, and food security should be facilitated and ecosystems must be stabilised and managed to restore their ecological functionality.

- **Settlement Areas:** This category includes all existing settlements, large and smaller towns, villages and hamlets. Settlements are delineated by municipalities in terms of an urban edge or by DEA&DP in terms of the 2014 NEMA Listing Notices as urban areas. The purpose is to develop and manage settlements in a sustainable manner. Wherever possible existing settlements should be used to accommodate non-agricultural activities and facilities.



WCBSP Map Category → / Spatial Planning Category ↓	Protected Areas PA	Critical Biodiversity Area 1 (Terrestrial/ Aquatic) CBA 1	Critical Biodiversity Area 2 (Degraded) CBA 2	Ecological Support Area 1 (Terrestrial/ Aquatic) ESA 1	Ecological Support Area 2 ESA 2	Other Natural Areas (Natural to Near-natural / Degraded) ONA	No Natural Remaining NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•

Area Biospatial Plan Map: Prince Albert Local Municipality

Road Type

- National Road
- Arterial Road
- Main Road
- Railways
- LM Boundaries
- Dams
- Rivers
- Cultivated Land

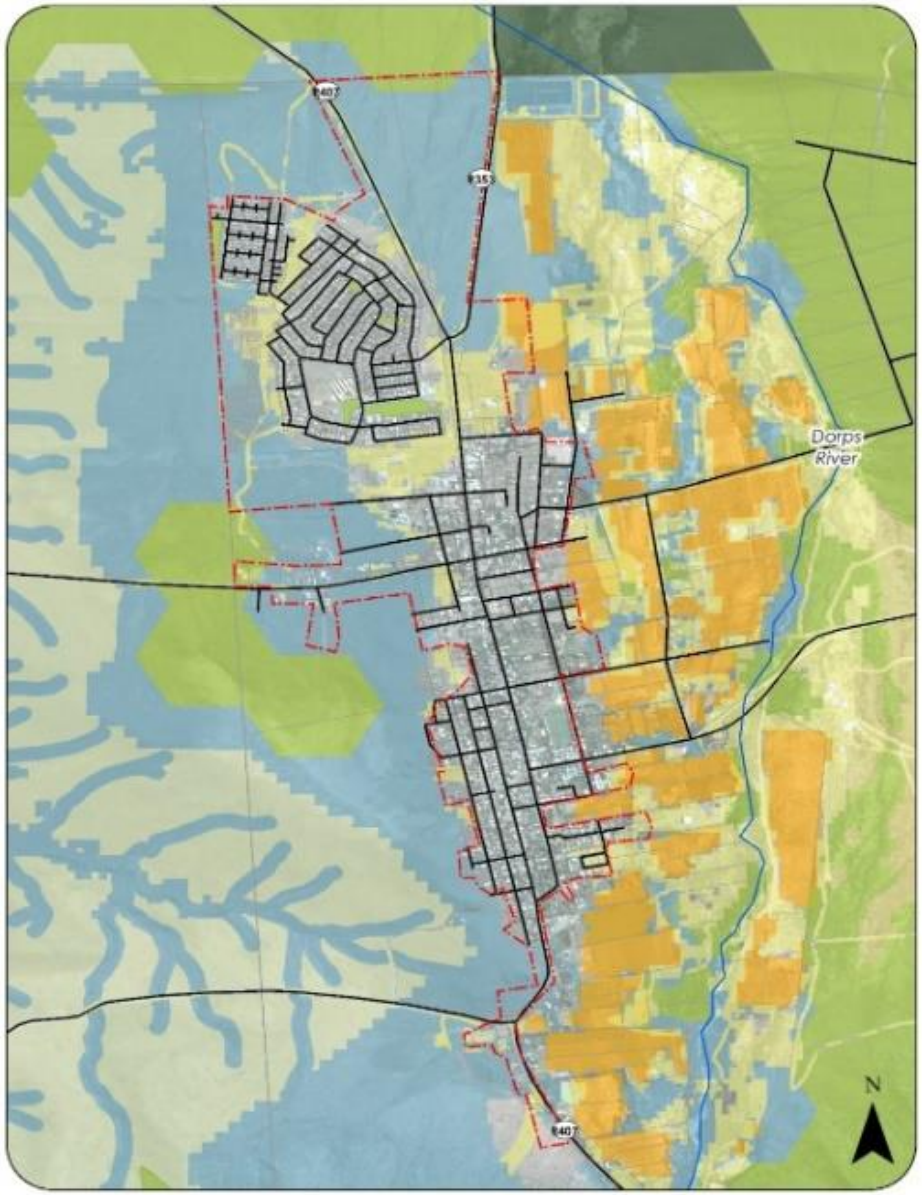
Biodiversity Planning Land Use Guidelines

- Protected Areas
- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Areas 1
- Ecological Support Areas 2
- Other Natural Areas

1:500 000

0 20 40 Km

Figure 4.18: Area Biospatial Plan Map for the Prince Albert Municipal Area (Data source SANBI, 2017)



Town Biospatial Plan Map: Prince Albert

- 2014 Urban Edge
- Road Network
- Rivers
- Erven
- Parks Cadastre
- Cultivated Land

Biodiversity Planning Land Use Guidelines

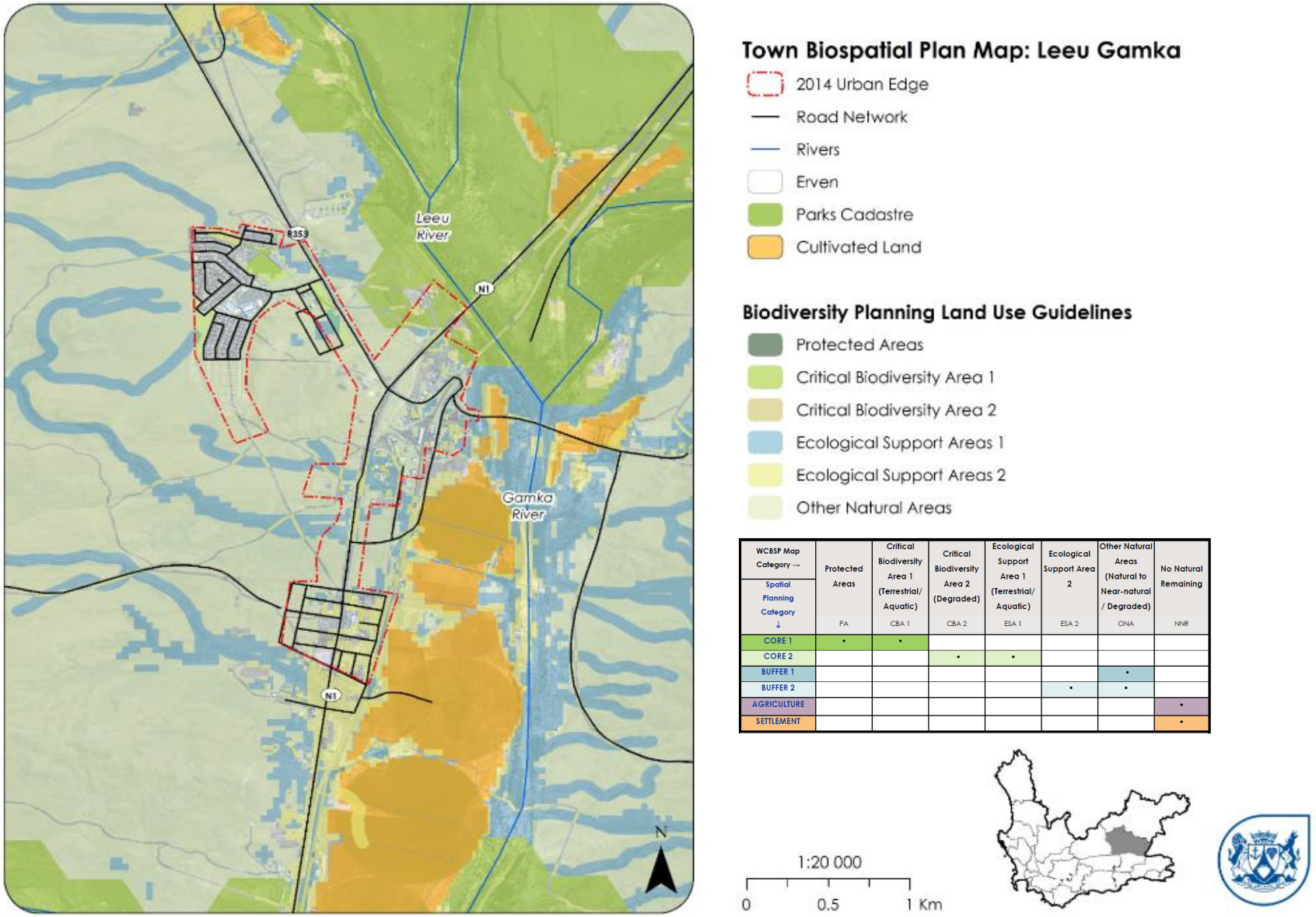
- Protected Areas
- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Areas 1
- Ecological Support Areas 2
- Other Natural Areas

WCBSP Map Category → / Spatial Planning Category ↓	Protected Areas PA	Critical Biodiversity Area 1 (Terrestrial/ Aquatic) CBA 1	Critical Biodiversity Area 2 (Degraded) CBA 2	Ecological Support Area 1 (Terrestrial/ Aquatic) ESA 1	Ecological Support Area 2 ESA 2	Other Natural Areas (Natural to Near-natural / Degraded) ONA	No Natural Remaining NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•

1:20 000

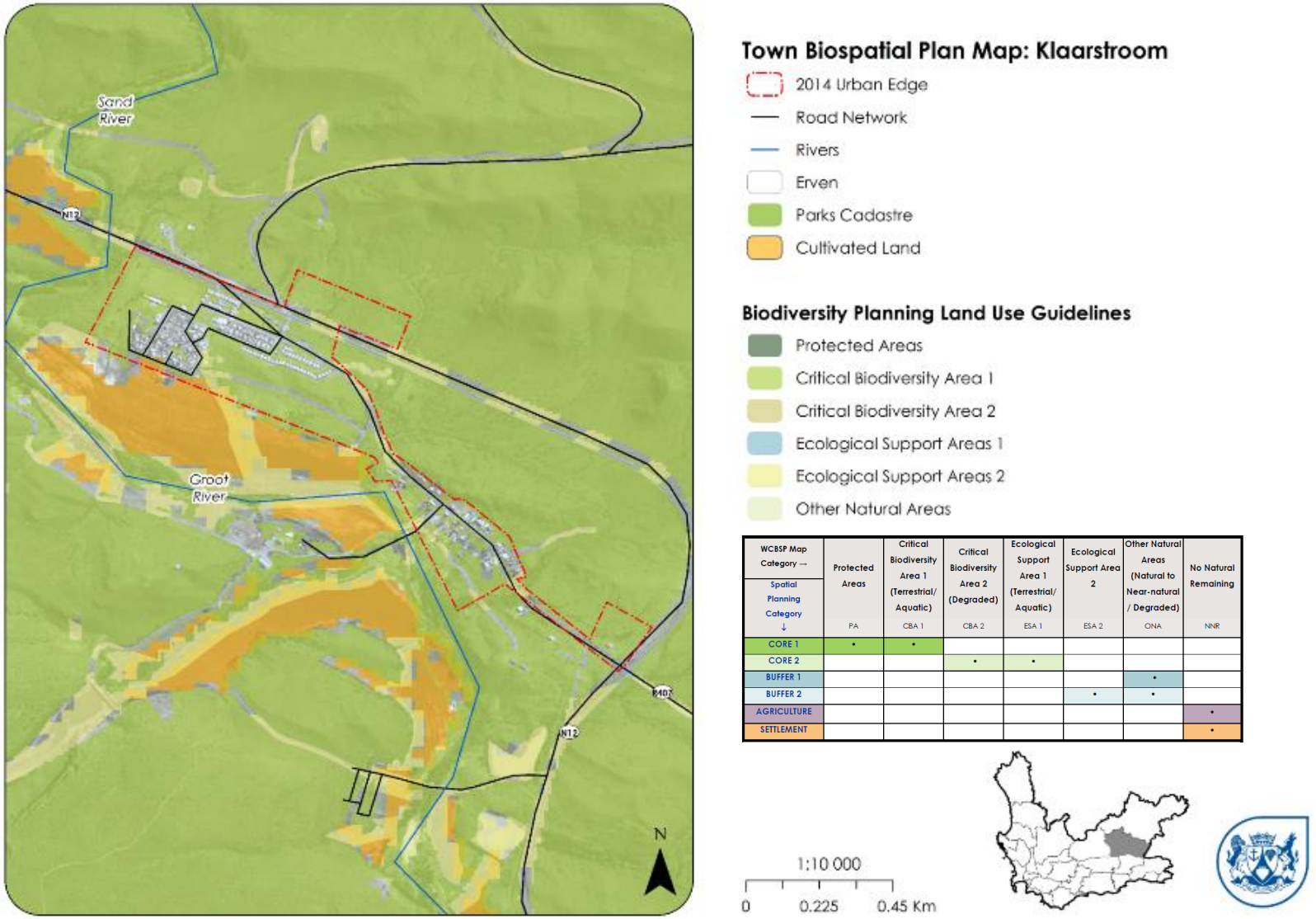
0 0.5 1 Km

Figure 4.19: Area Biospatial Plan Map for the Prince Albert Town (Data source SANBI, 2017)



WCBSP Map Category → / Spatial Planning Category ↓	Protected Areas (PA)	Critical Biodiversity Area 1 (Terrestrial/ Aquatic) (CBA 1)	Critical Biodiversity Area 2 (Degraded) (CBA 2)	Ecological Support Area 1 (Terrestrial/ Aquatic) (ESA 1)	Ecological Support Area 2 (ESA 2)	Other Natural Areas (Natural to Near-natural / Degraded) (ONA)	No Natural Remaining (NNR)
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•

Figure 4.20: Area Biospatial Plan Map for the Leeu Gamka (Data source SANBI, 2017)



WCBSP Map Category → / Spatial Planning Category ↓	Protected Areas PA	Critical Biodiversity Area 1 (Terrestrial/ Aquatic) CBA 1	Critical Biodiversity Area 2 (Degraded) CBA 2	Ecological Support Area 1 (Terrestrial/ Aquatic) ESA 1	Ecological Support Area 2 ESA 2	Other Natural Areas (Natural to Near-natural / Degraded) ONA	No Natural Remaining NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•

Figure 4.21: Area Biospatial Plan Map for the Klaarstroom (Data source SANBI, 2017)

Town Biospatial Plan Map: Prince Albert Road

- 2014 Urban Edge
- Road Network
- Railways
- Rivers
- Erven

Biodiversity Planning Land Use Guidelines

- Protected Areas
- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Areas 1
- Ecological Support Areas 2
- Other Natural Areas

WCBSP Map Category → / Spatial Planning Category ↓	Protected Areas PA	Critical Biodiversity Area 1 (Terrestrial/ Aquatic) CBA 1	Critical Biodiversity Area 2 (Degraded) CBA 2	Ecological Support Area 1 (Terrestrial/ Aquatic) ESA 1	Ecological Support Area 2 ESA 2	Other Natural Areas (Natural to Near-natural / Degraded) ONA	No Natural Remaining NNR
CORE 1	•	•					
CORE 2			•	•			
BUFFER 1						•	
BUFFER 2					•	•	
AGRICULTURE							•
SETTLEMENT							•

1:10 000

0 0.225 0.45 Km

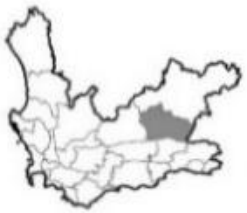


Figure 4.22: Area Bio spatial Plan Map for Prince Albert Road (Data source SANBI, 2017) - more detailed assessment may be needed

POLICY A2: ENVIRONMENTAL OFFSETTING & BIODIVERSITY STEWARDSHIP

The 2017: Draft National Biodiversity Offset Policy aims to ensure that significant residual impacts of developments are remedied (See https://www.environment.gov.za/sites/default/files/legislations/nema107of1998_draftnationalbiodiversityoffsetpolicy_gn40733_0.pdf). Environmental offsetting aims to slow and progressively reverse ecological deficit through counterbalancing human induced negative effects on the environment that remain after every effort has been made to avoid, minimise and then rehabilitate impacts through avoiding, minimising and rehabilitating impacts or impacted areas elsewhere. This approach recognizes the interdependence between biodiversity, ecosystems and the benefits they provide for people through use and cultural values. It takes a landscape-scale, rather than a site-specific scale view, to enable consideration of cumulative impacts.

Policy A2 Guidelines:

(i) Adhere to 2017: Draft National Biodiversity Offset Policy which should be taken into consideration with every development application that still has significant residual impact after the Mitigation Sequence has been followed in the Environmental Impact Assessment process. Table 4.4 provides a set of basic offset ratios to be considered when designing an offsets intervention.

(ii) The offset opted offset intervention meant to counterbalance the impact must go through a process of public participation during the EIA process.

(iii) It is worth noting that the offsets could be ringfenced and linked to town scale tree planting and water and waste management initiatives that demonstrate equal offset reduction measures.

(iv) Draft an Offset Register to monitor compliance with the environmental offset and to monitor the progress and impact of the offset interventions;

Area impacted by remaining impact	Basic offset ratio (offset area : remaining impact area)
Critical Biodiversity Area: Irreplaceable (CBA1)	30 : 1
Critical Biodiversity Area: Important or Optimal (CBA2)	10 : 1
Ecological Support Area (ESA)	5 : 1
Other Natural Area	2 : 1

Table 4.4: 2017: Draft National Biodiversity Offset Policy Offset Ratio's

MSDFs often identify land in terms of the WCBSP data set that needs to be protected but is in fact privately owned land, which many landowners may become worried about. Therefore, info on **incentives/ concessions around property rates or tax benefits** is useful.

(v) **Section 37D of the Tax Income Act** allows for a 4% straight line deduction on the value of the land declared. This means that a landowner who declares their **land under Stewardship** as a Nature Reserve or National Park may deduct 4% of the value of that declared land from their taxable income each year for 25 years.

The tax incentive governed by section 37D can only accrue to the title deed holder of the land. The land must be declared as a Nature Reserve or National Park in terms of section 20 or 23 of NEMPAA with the endorsement reflected on the title deed of the land for a minimum period of 99 years.

If the landowner maintains a right of use of the land, then the deduction is apportioned accordingly. The deduction becomes effective in the year the land is declared and in each subsequent year of assessment. It is important to remember that these straight-line deductions only apply to land declared on or after 1 March 2015

Should the Stewardship agreement be terminated, the landowner will be liable for certain tax penalties. The landowners' responsibilities in terms of the Stewardship agreement are defined by NEMPAA. The section applies to taxpayers in profit making or loss positions and has benefits for both scenarios.

POLICY A3: PROMOTE AND DEVELOP A WATER RESILIENT MUNICIPALITY

Without water, the municipality is economically, socially and environmentally unsustainable. If the status quo remains, the region will continue to experience economic shocks related to water unavailability. Water sensitive design, water availability or water constraints must be considered as part of all land use management changes, urban development, infrastructure expansion or any other process that impacts on water use or availability in the municipality.

Policy A3 Guidelines:

At the municipal scale, the following adaptation policy measures apply:

i. Adopting an **overarching approach to water demand management** – maximise efficiencies, optimise storage capacity and ground water capacity. This approach would need to take cognizance of the policies below.

ii. **Follow groundwater management recommendations set out in the Groundwater Management and Artificial Recharge Feasibility Study. Monitoring ground water resources** and implement effective water reduction techniques when sources are low. See the Groundwater Monitoring Network Strategy for the Karoo https://cbosss.com/igscbss-to-design-gw-monitoring-network-for-karoo/. It is further noted that a hydrogeologist is currently work on this and this information will probably become available soon

iii. **Protect and rehabilitate the Dorp's River** system. This would include the development of an investment programme to evaluate the carrying capacity of the Dorps river and reconciling this with future growth needs.

iv. **Protecting and rehabilitate high yield groundwater recharge** areas in the Swartberg Mountain areas around the Gamkapoort Dam, Oukloof Dam and Klaarstroom Towns (See Figure 4.23 on the following page).

v. Adhering to the National Department of Water and Sanitation's water **resource quality objectives**. In September 2020, in terms of section 13(1) of the National Water Act, 1998 (Act No. 36 of 1998), the National DWS determined water resource classes, prioritisation units, river nodes and corresponding resource quality objectives for the. The sub catchment of Breede-Gouritz Water Management Area in which Prince Albert municipality is located is a classified as a **Class II**: moderate protection (further info to be found in the gazette pertaining to Class II). The Gamka Buffels groundwater resource prioritisation unit is located just south of Leeu Gamka. The important listed river nodes are **gv 1,2** and **3** located near Kruidfontein and Leeu Gamka; and **gv 17** located west of Prince Albert Town (See Figure 4.24). The ecological category and the Resource Quality Objectives (RQOs) (water quantity and quality, habitat and biota) for each groundwater resource unit and river node can be found in the relevant gazette.

vi. Ensure the integrity of valuable rainwater catchment areas, groundwater recharge areas and riverine systems are kept **clear of invasive plant species** or any use that will either degrade the quality or quantity of water available for use.

vii. Develop **agricultural water demand management programme's**, focusing on ground water appropriate agricultural areas, particularly the the historic town farms along the Dorps, the farms along the Gamka River and the farms along the Meirings River.

At the settlement scale, the following following adaptation policy measures apply:

i. Regulate borehole use to ensure sustainable use of groundwater systems.
ii. Developing water and sanitation infrastructure that utilizes water re-cycling and reuse.
iii. Promoting household and farm-scale rainwater capturing for non-potable uses.
iv. Ensure rainwater tanks are included in new developments of households on erven larger than 120m^2.
v. Promoting compact urban development to minimise infrastructure expansion that increases the risks of water loss from expansive water reticulation systems
vi. Investing in a maintenance programme that seeks to minimise leaks from municipal water infrastructure.
vii. Implement water demand management programmes in Government facilities (e.g. municipal offices, education, health and public works).

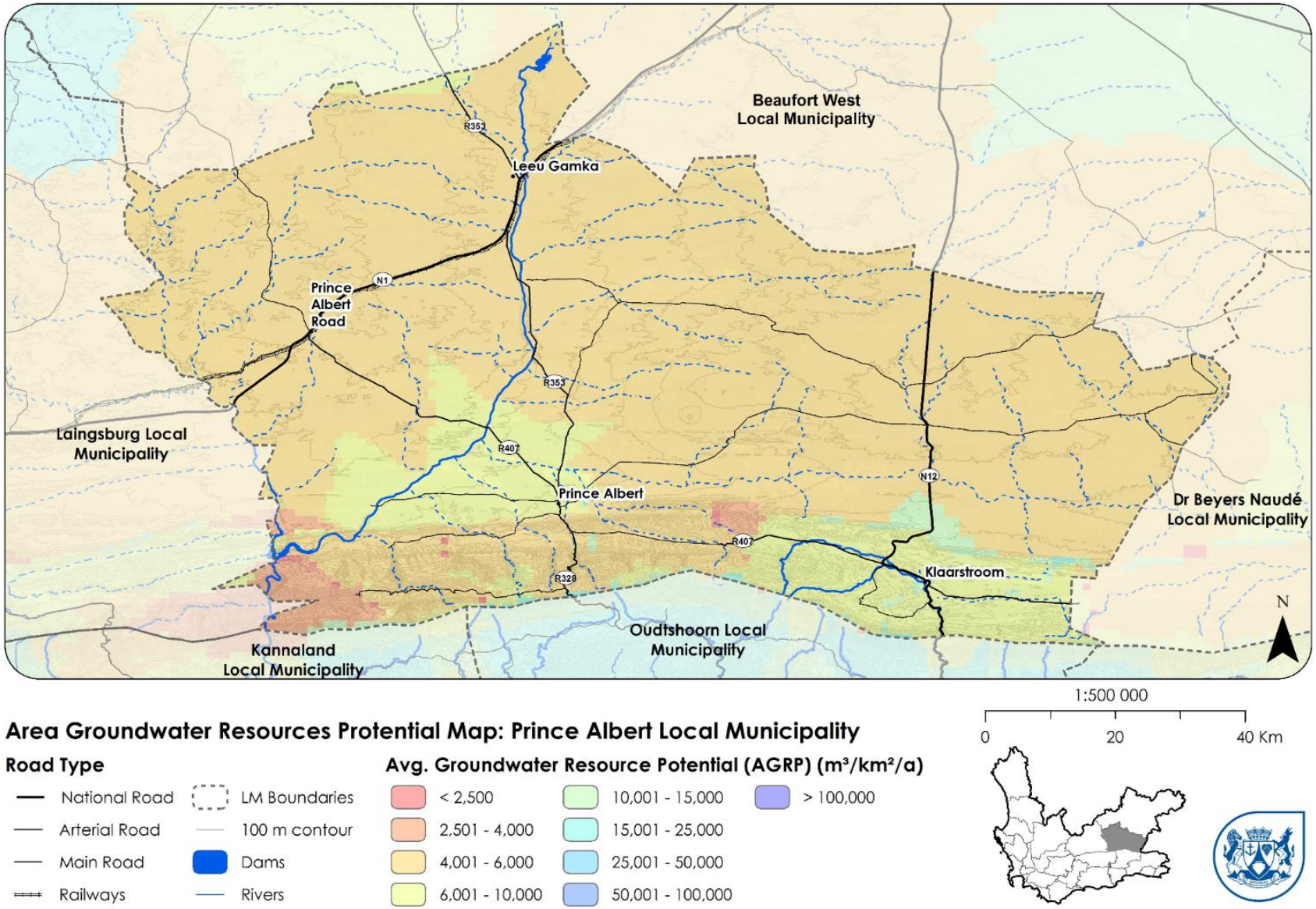


Figure 4.23: Area Groundwater Resources Map for Prince Albert (Data source: Water Resources of South Africa Study, 2012)

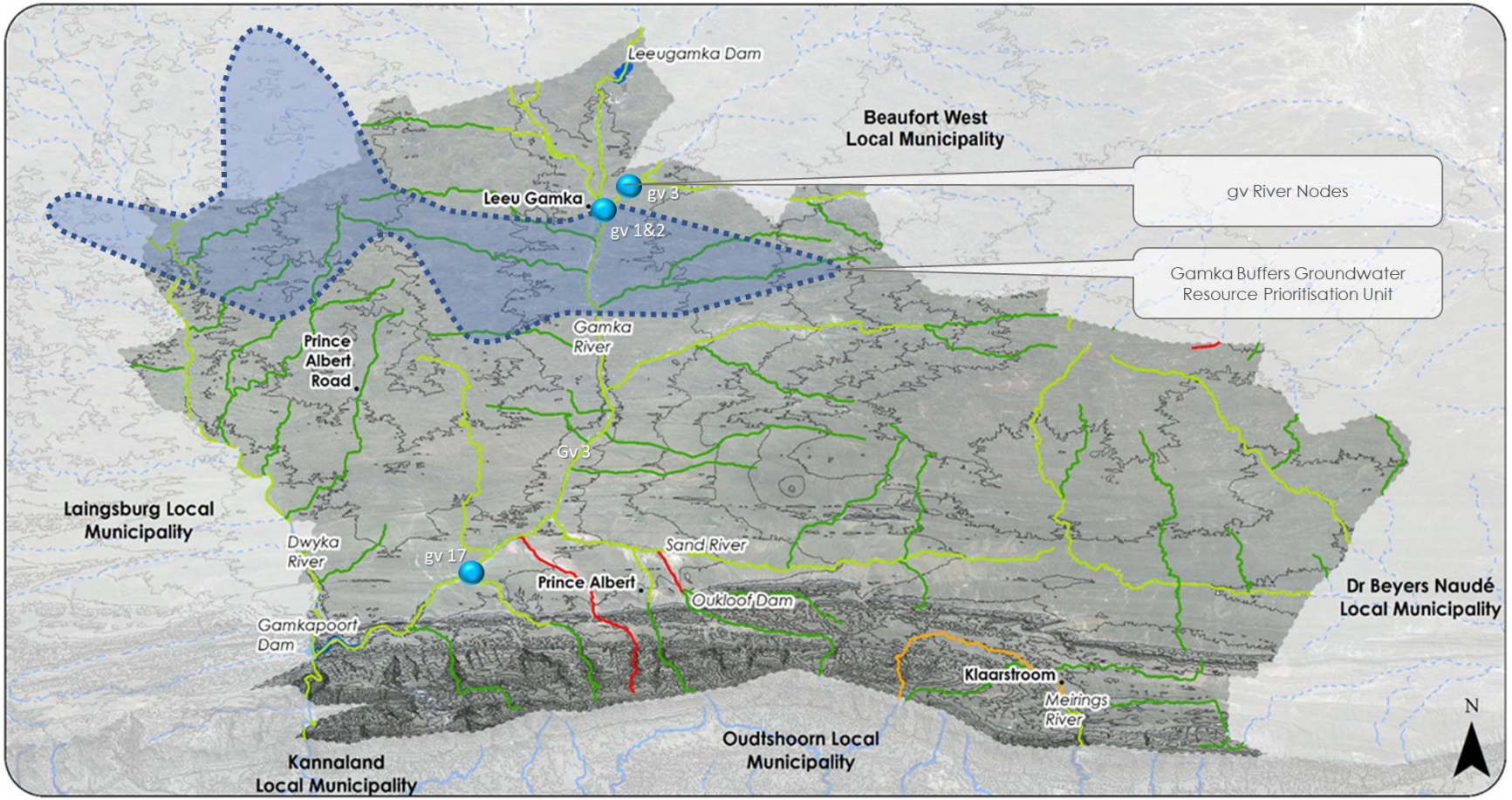


Figure 4.24: Area Surface Water and River Conditions Categories Map for Prince Albert with DWS Groundwater Resource Prioritization Unit and gv River nodes (source: CSIR NFEPA Rivers, 2011 & DWS 2020)

POLICY A4: CLIMATE CHANGE ADAPTATION AND DISASTER MITIGATION

According to the PAM 2019 Disaster Register drought, fire, flooding and disruption to water supply are the most severe climate change relate impacts for the municipality Figures 4.25-28 on the following ages provide an amalgamated summary taken from the 2019 Disaster Risk Plan and the CSIR 2020 online municipal Risk profile. In addition to combatting the effects of Climate Change through policies A1 and A3, below are several policies dealing adaptation and mitigation.

Policy A4 Guidelines for Adaptation and Mitigation:

(i) Where feasible and through broader partnership, respond to the infrastructure and risk guidelines put forth by the the 2019/20 Prince Albert Municipality Community Based Disaster Risk Assessment and Risk Register. An adapted summary of the risk maps for Prince Albert Municipal Area, Prince Albert Town as well as Leeu Gamka and Klaarstroom are shown on the following pages. The projects put forth by the Risk Assessment are further included in Chapter 5 of this MSDF.

(ii) Link to the Western Cape Government / CSIR investment framework to assist with informing decisions on where and how to invest in the Western Cape's ecological infrastructure. The document, still in draft format, is called the Western Cape Environmental Infrastructure Investment Framework (WC EIIF) (See video link: https://youtu.be/ivR7zKs1Jqk). The study analyses risks & vulnerabilities per catchment such as water supply (surface & ground water), fire, flooding, erosion / rangeland degradation. It then links these to opportunities for restoration through investment strategies that focus on collaborative funded interventions such as:

- Control of AIS (Alien Invasive Species Strategy) & fuel load reduction via Management Unit Control Plans (MUCPs);
- General ecosystem rehabilitation;
- Protection and rehab of rivers, wetlands & estuaries;
- Conservation Agriculture;
- Integrated Fire management;
- Indirect mechanisms;
- Improved awareness better M&E; better planning, etc.

(iii) Reduce both fire and groundwater depletion risk through alien vegetation clearing, particularly along riverbanks. Further support and training can be provided in response to a biomass economy, where wood and biomass from clearing can be used for furniture, construction, composting and many other products. There are also opportunities for carbon sequestration using spekboom. See https://www.greencape.co.za/assets/Uploads/BioValSA-Lignocellulosic-Biomass-Opp.pdf for "Opportunities for value addition to selected Western Cape organic waste streams".

(iv) Guidelines for the monitoring, control, and eradication of alien invasive species can also be found in Section 76 of the National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) ('NEMBA') and Ecosystem Guidelines for Environments in the Western Cape (2016) See: http://biodiversityadvisor.sanbi.org/wpcontent/uploads/2012/04/Ecosystem_Guidelines_Ed2.pdf.

(v) Eradication programmes should focus on the urban periphery, in river catchment areas and Fire Management Areas. High veld fire risk areas and asset protection zones (interfaces between settlements and agricultural/natural environment – must ensure adequate fire breaks are considered and implemented.

(vi) Public landowners must allocate enough resources to ensure the management of their land to remove and prevent alien vegetation infestation.

(vii) Prevent future flood risks by ensuring development is set back from the 1:100 year flood zones adjacent all river systems;

(viii) The CKDM's Disaster Risk Management Department must be given an opportunity to provide input into land use applications in interface areas where there is fire and flooding risk. A protocol between the CKDM and PAM must be developed to facilitate this.

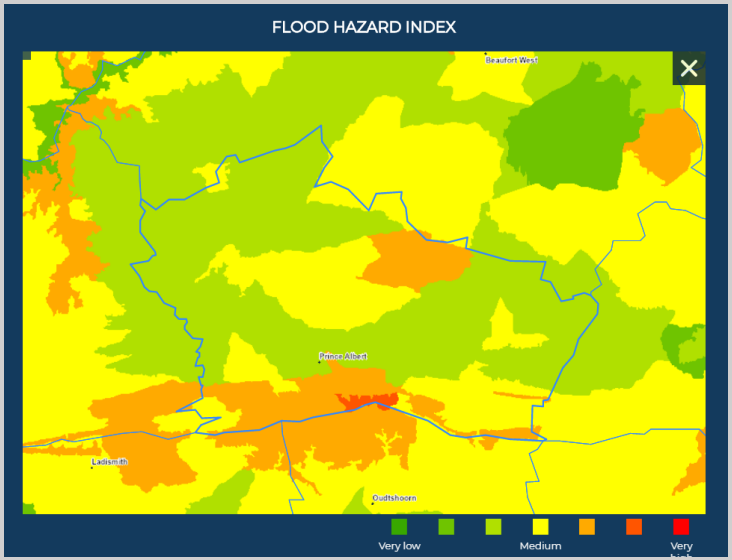
(ix) Preserve river riparian zones and wetlands with at least a 32m buffer from agriculture and any other development.

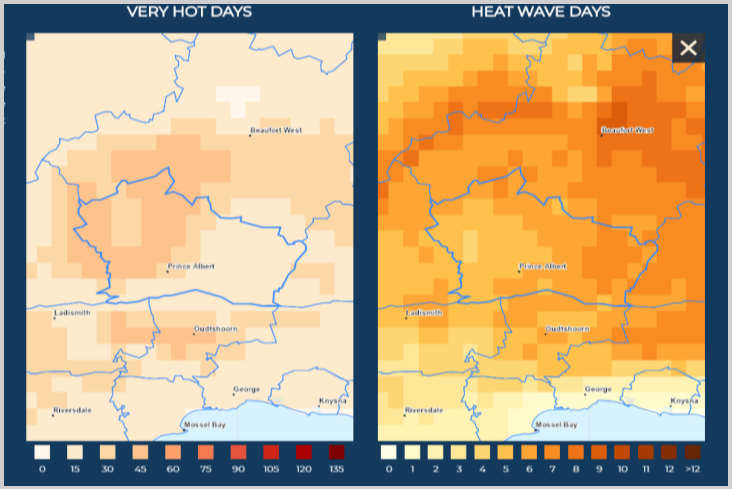
(x) Ensure storm water systems in urban areas can accommodate flooding conditions effectively, particularly in North End and Bitterwater. Where development is permitted, it must be associated with sustainable urban drainage design;

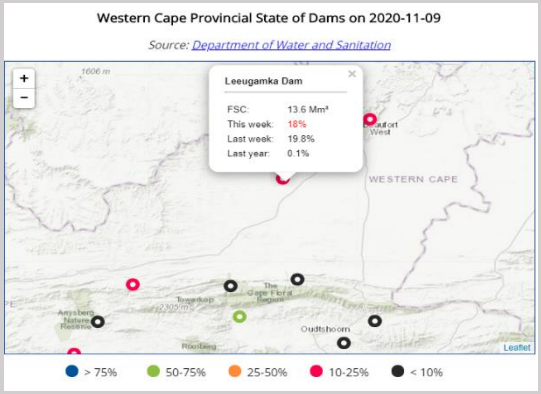
(xi) Promote renewable energy generation and use;

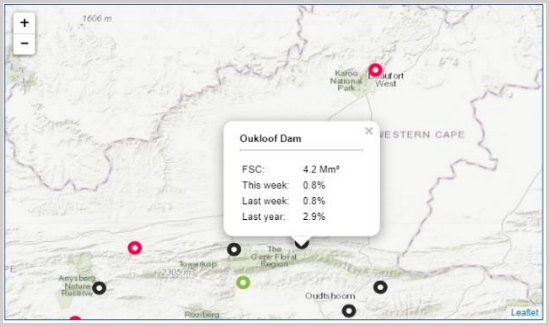
(xii) Promote green-building principles in new builds and retrofitting of buildings;

MUNICIPAL WIDE CLIMATE CHANGE IMPACTS IN PRINCE ALBERT MUNICIPALITY









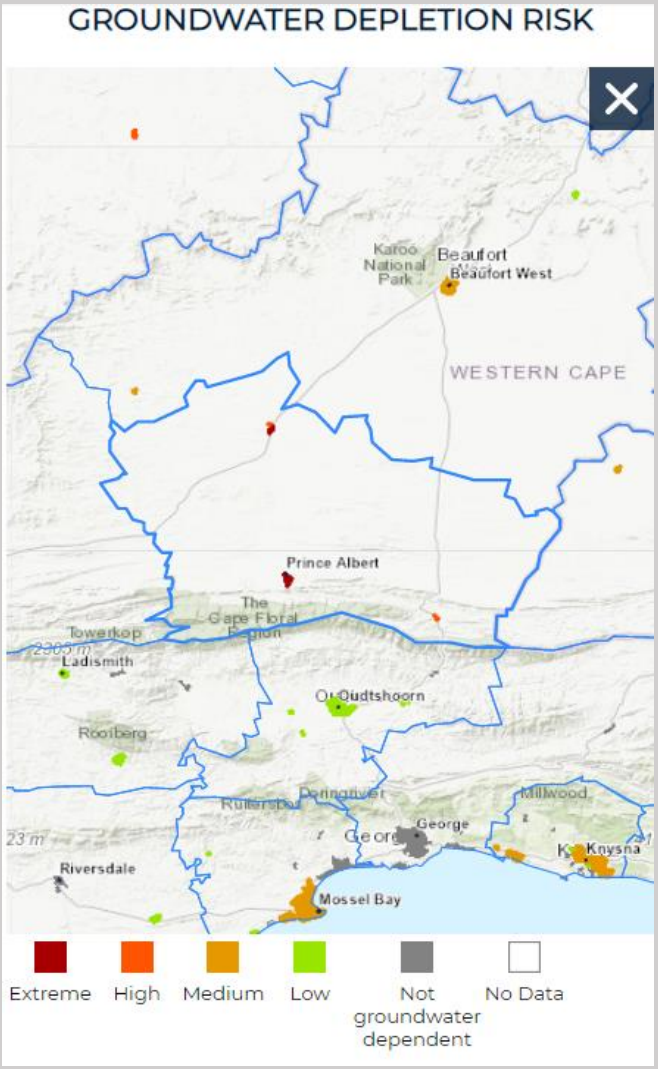


Figure 4.25: CSIR 2020 Risk profile and Dam Lecels for Prince Albert Municipality (source: https://riskprofiles.greenbook.co.za/ + www.elsenburg.com/agri-tools/western-cape-dam-levels).

2019 COMMUNITY BASED RISK ASSESSMENT FOR PRINCE ALBERT TOWN

Flooding & Storm Water: Ponding in Botterblom and Dahlia Streets. Supercritical flow storm water problems Buitekant, Kronkel Weg & Church Street. Water generally rundowns from the West. WWTW is in a Flood and Fire Zone.

Electricity: Supply disruption during storms with strong winds. Aging infrastructure problematic.

Sewage: Blockage is an annual occurrence in Prince Albert North-End.

Population: Highest growth pressure is North End

Transportation: Services for the elderly and disabled are needed

Education: High cost of traveling to educational facilities outside the boundaries of the municipality makes further education unaffordable/encourages early drop-out in schools.

Fire: Risk comes from the Swartberg Mountain and Pass. Last veld fire almost damaged the reservoir. Only have a limited amount of fire trucks.

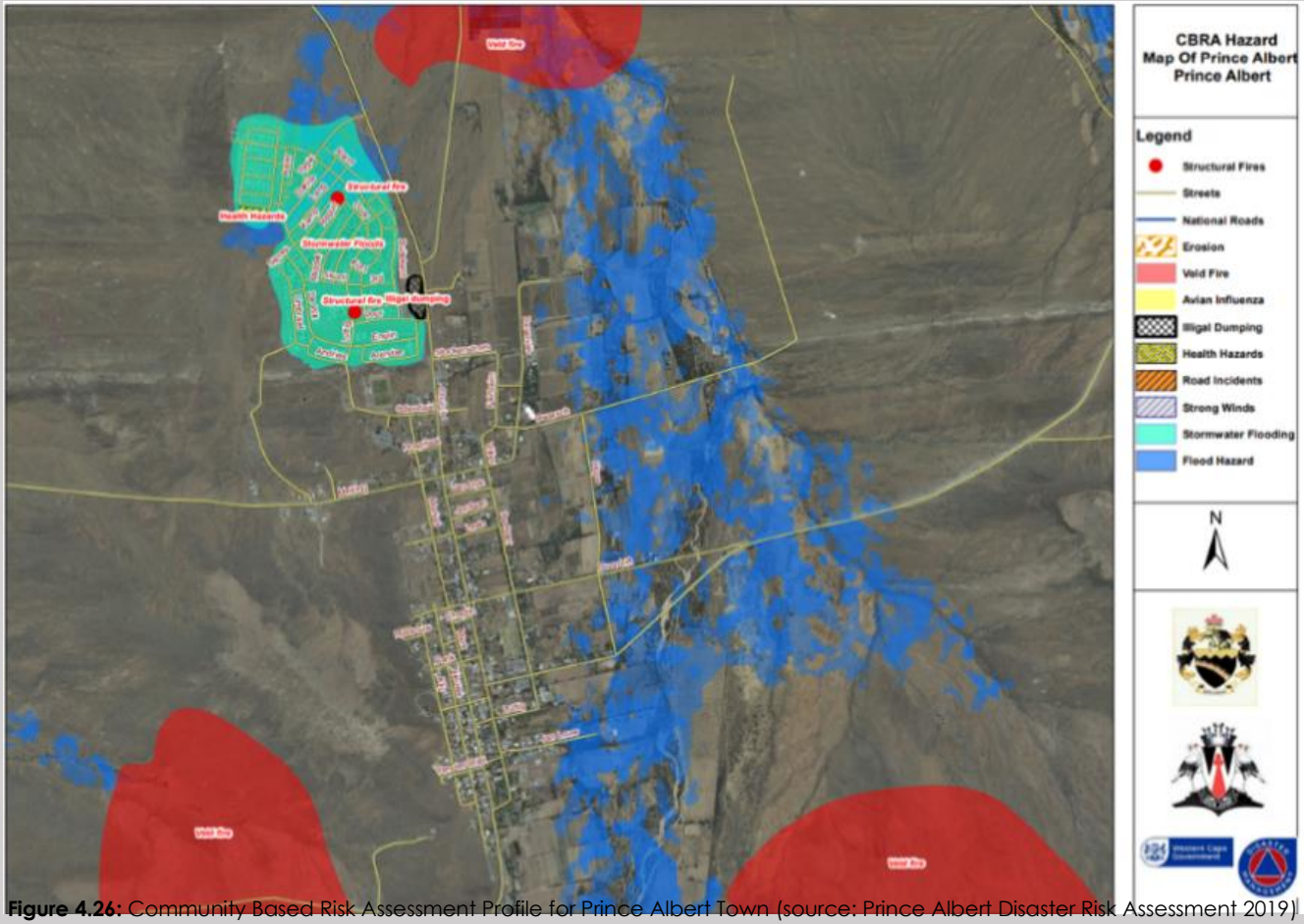


Figure 4.26: Community Based Risk Assessment Profile for Prince Albert Town (source: Prince Albert Disaster Risk Assessment 2019)

2019 COMUNITY BASED RISK ASSESSMENT FOR LEEU GAMKA

Flooding & Storm Water: Main storm water problems are the culverts in Aster Street, Botteblom Street Gnaap and Aalwyn Street, Pepperboom Street, Gousblom Street, Springbok Street, Ambulance station area and Leeu-Gamka Primary.

Wind: Lies mainly in an open-plain exposing most of the town to strong winds local Primary School.

Electricity: Supply disruption during storms with strong winds.

Population: Highest growth pressure is Bitterwater

Transportation: No school learner transport routes

Education: Secondary school wanted children must be transported to Beaufort-West at huge cost to both government and parents

Fire: Risk along Koekemoers and Gamka River (high fuel loads generated by alien invasive species Fluitjiesriet). A lack of Fire Services and landfill site is also considered a fire risk

Road Accidents: Pedestrians accidents at Leeu Gamka along the N1. Residents cross N1 to draw cash at the Shell Garage ATM. Contributing factors include lack of street lighting and a lack of truck stops close.

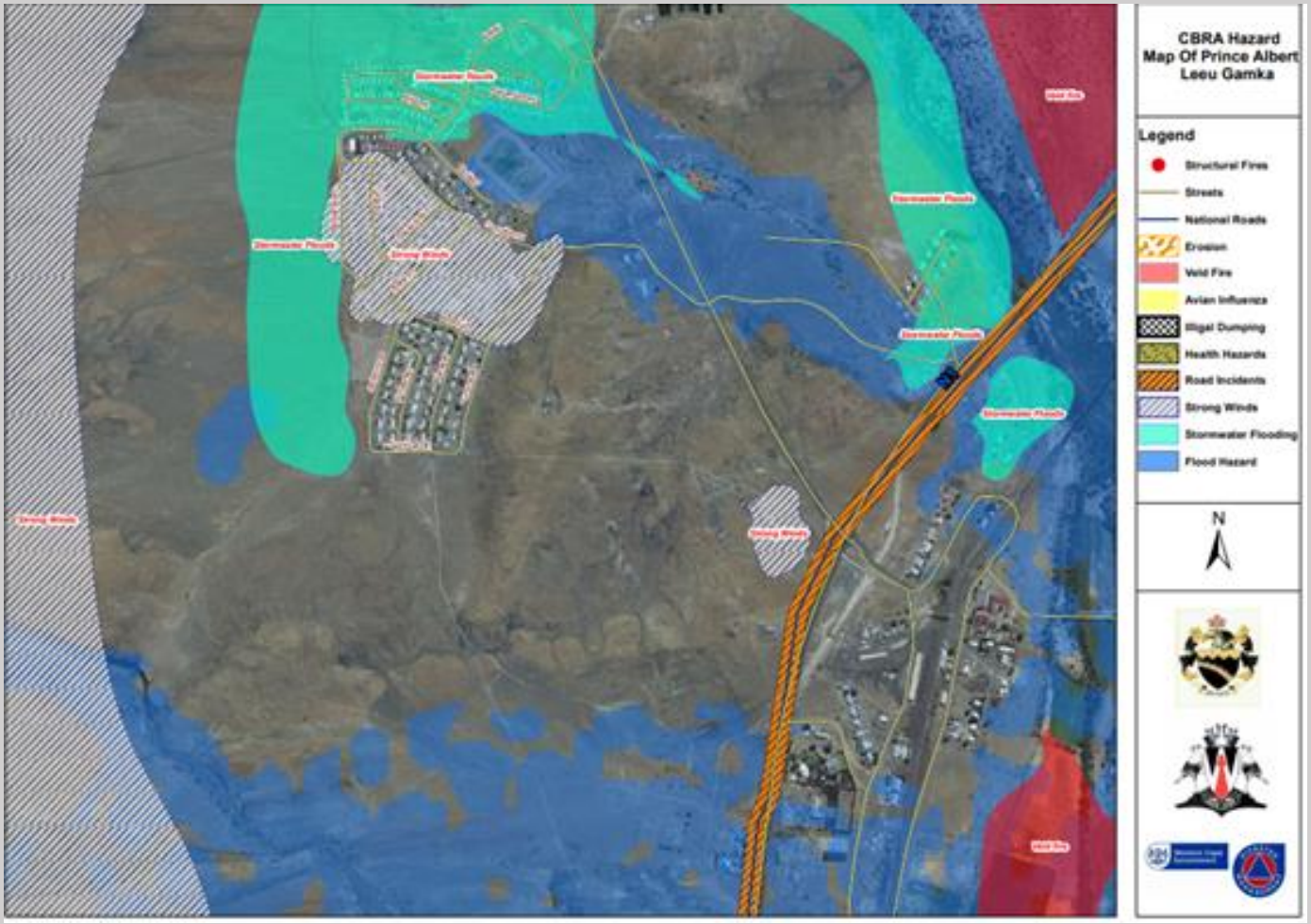


Figure 4.27: Community Based Risk Assessment Profile for Leeu Gamka (source: Prince Albert Disaster Risk Assessment 2019)

2019 COMMUNITY BSED RISK ASSESSMENT FOR KLAARSTROOM

Flooding & Storm Water: Main storm water problems are the stormwater flows on Aalwyn Street into properties on other side of street (Bloekom Street). Ponding at cemetery, informal structures and low lying bridge located in flooding areas. Poor maintenance of existing stormwater infrastructure

Wind: Has caused structural damage in the past between Skool and Bloekom Roads.

Electricity: Supply disruption during storms with strong winds.

Fire: Areas that were damaged in the past includes Witrivier (a farm in Klaarstroom)

Road Accidents: Pedestrians and Kudu accidents along the N12.

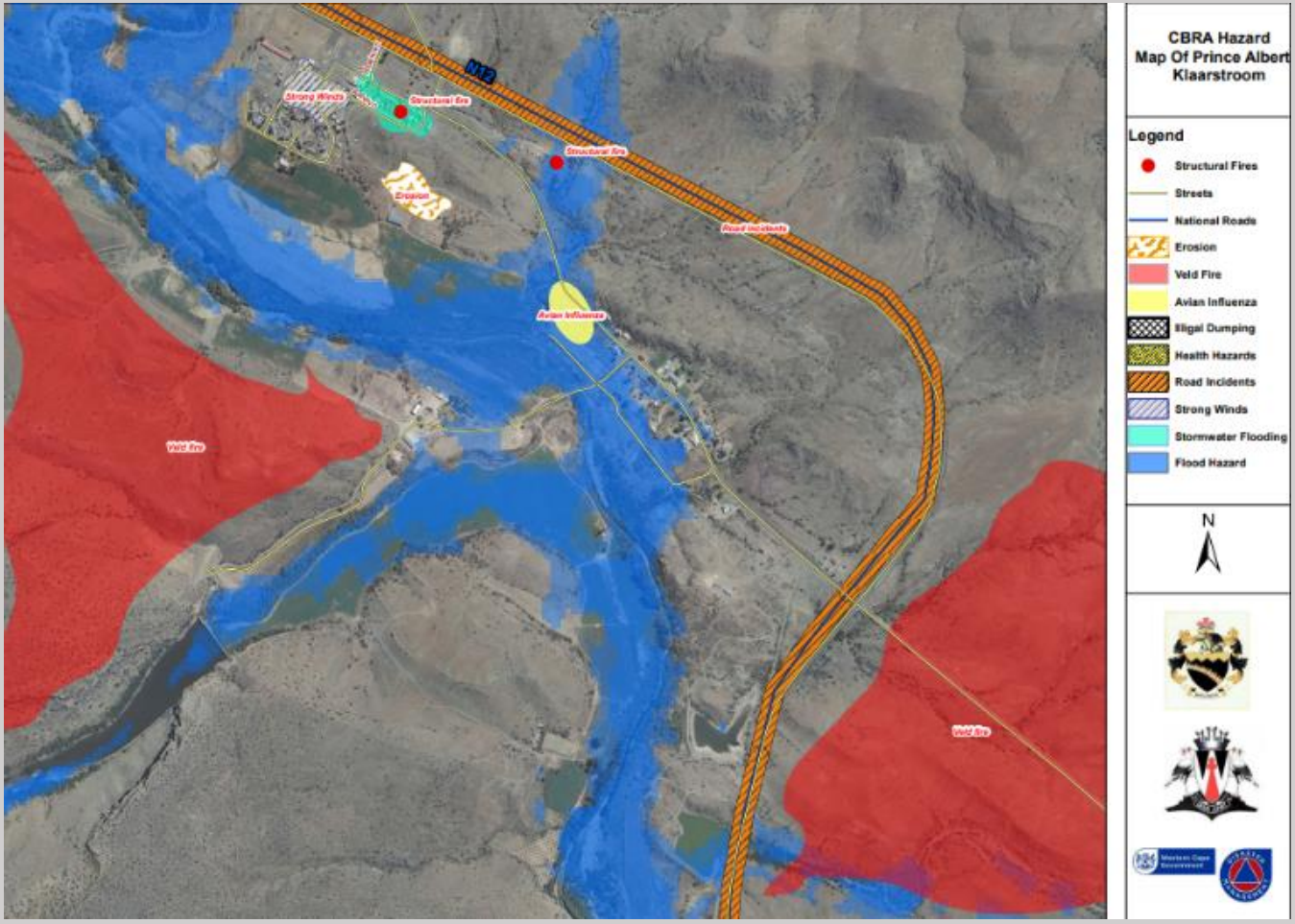


Figure 4.28: Community Based Risk Assessment Profile for Leeu Gamka (source: Prince Albert Disaster Risk Assessment 2019)

POLICY A5: TOURISM ENHANCEMENT & PROTECTION OF SCENIC ASSETS

Due to the COVID-19 containment measures that were implemented in March 2020, it has been projected that in the Prince Albert municipal area, the wholesale and retail trade, catering and accommodation sector will contract by 18.2 per cent in 2020 (MERO, 2020). In 2019, this sector was the largest contributor to the local economy, both in terms of GDPR and employment. Tourism is an important source of income in this sector, and the travel restrictions imposed have had a significant impact. Nonetheless, going forward, tourism must still assist in achieving future growth and development. As shown Figure 4.29 on the following page, Prince Albert Municipality has the most heritage and scenic resources in the Central Karoo District. The main cultural heritage and scenic resources as identified in the PSDF and endorsed in this SDF include:

- Scenic routes and passes as well as landscapes: The Swartberg, Meiringspoort, Gamkakloof and other mountain passes.

- Historic settlements, main streets and heritage assets: Prince Albert Town, Church Street, Historic Town Farms, proclaimed monuments and heritage zones.

The landscape character of these areas and settlements must be safeguarded, and uncompromising development on ridge lines or in important view corridors must not be allowed.

Policy A5 Guidelines:

i. The PSDF Heritage and Scenic Resources Specialist Study (2013) provides guidance in terms of the spatial form and character of settlements. These guidelines are adopted in this SDF and should be referred to in land use management decision making.

ii. Rejuvenate and invest in the historic settlement cores of Prince Albert and Klaarstroom Towns to make these appealing to tourists, businesses and attract investment into the town centres. Leverage these assets to create employment opportunities by attracting tourists.

iii. Develop a heritage overlay zone to guide land use decision making See Figure 4.30. The Prince Albert Heritage Inventory, available from the Prince Albert Cultural Foundation (PACF), denotes the key heritage resources that must continue to be protected. These not only include the proclaimed monuments but also the graveyards, water furrow system and the historic town farms and Gabled buildings (c1840-1860). The PACF has divided Prince Albert into different heritage significant sectors and prepared a matrix linking the current zoning scheme with recommendations for various land uses in each heritage significant sectors.

iv. The development of a settlement (consolidation or growth) should take the existing (and sometimes historic) structure and spatial form into consideration and strengthen its character. This spatial form must be compact and respond to the topography of the landscape.

v. Promote vernacular Karoo-style building typologies in all development – low income housing development could be adapted to have Karoo-style features. Prince Albert Town, together with the Karoo region, has unique vernacular building and housing typologies that must be honoured and enhanced in future growth and development – to make these places more appealing and desirable for tourism and sense of place. These typologies should be replicated in government subsidy housing initiatives, as well as in gap and normal market housing development. Figure 4.12 shows some of the different housing typologies.

vi. When delivering any agri-processing, renewable energy or any infrastructure in rural areas, ensure that key view sheds, vistas and views are not undermined and that, where appropriate, set-backs and screenings (in the form of tree planting) are provided from roads.

vii. Continue develop and implement a destination and tourism branding and marketing strategy to promote the tourism sector i.e. through https://princealbert.org.za/

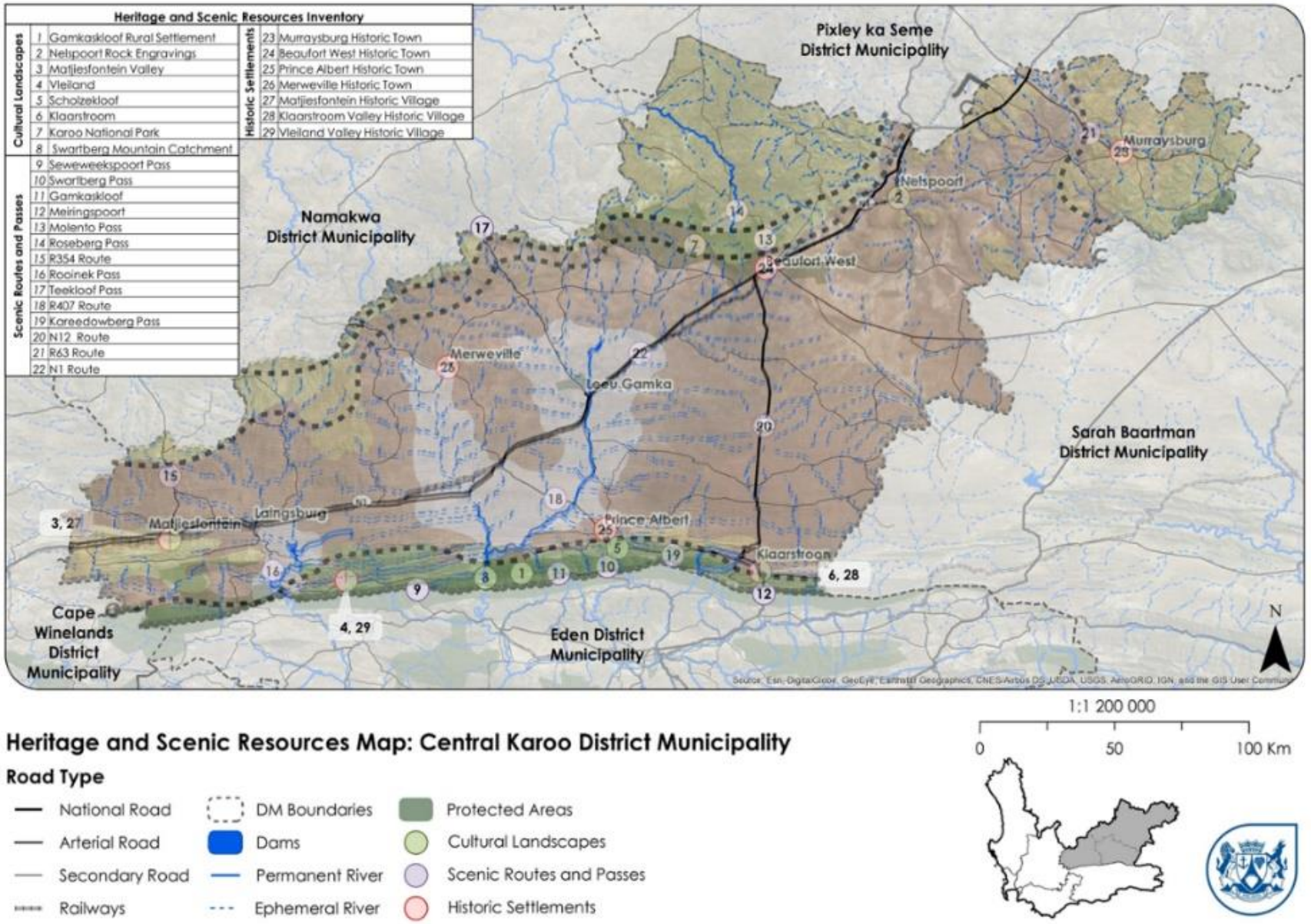


Figure 4.29: Heritage & Scenic Resources Map for the Central Karoo

PRINCE ALBERT TOWN HERITAGE OVERLAY ZONES AND PROCLAIMED MONUMENTS

A: Church Street and all erven east and west with very significant buildings and street frontages: Linear character with diversity of land uses: Agriculture, Residential, Business and Institutional.

B: Very significant heritage farmhouses and out-buildings on prime farmlands along De Beer and Pastories Street

C: Very significant serial grouping of Victorian and Edwardian dwellings in Nuwe Street

D: Very significant serial grouping of Victorian and Edwardian dwellings in Mark Street

E: Very significant town centre heritage farm buildings and farmlands bounded by Church, De Beer, Leeb & Deurdrif Streets

F: Various significant heritage buildings along Meiring & M. Prinsloo Street Cottages on smallholdings along Van Dyk and Jordaan Streets

G: Various heritage buildings on extensive prime farmlands bounded by Dorps river in the east

H: Very significant heritage farmhouses on prime farmland with heritage cottages on periphery Bo-Dorp.

I: Very significant heritage farmhouses on prime farmland and cottages on smallholdings

J: Robert Gordon Koppie – A botanically natural backdrop to the town, which needs proper legal protection.

K: Undeveloped erven with some heritage buildings

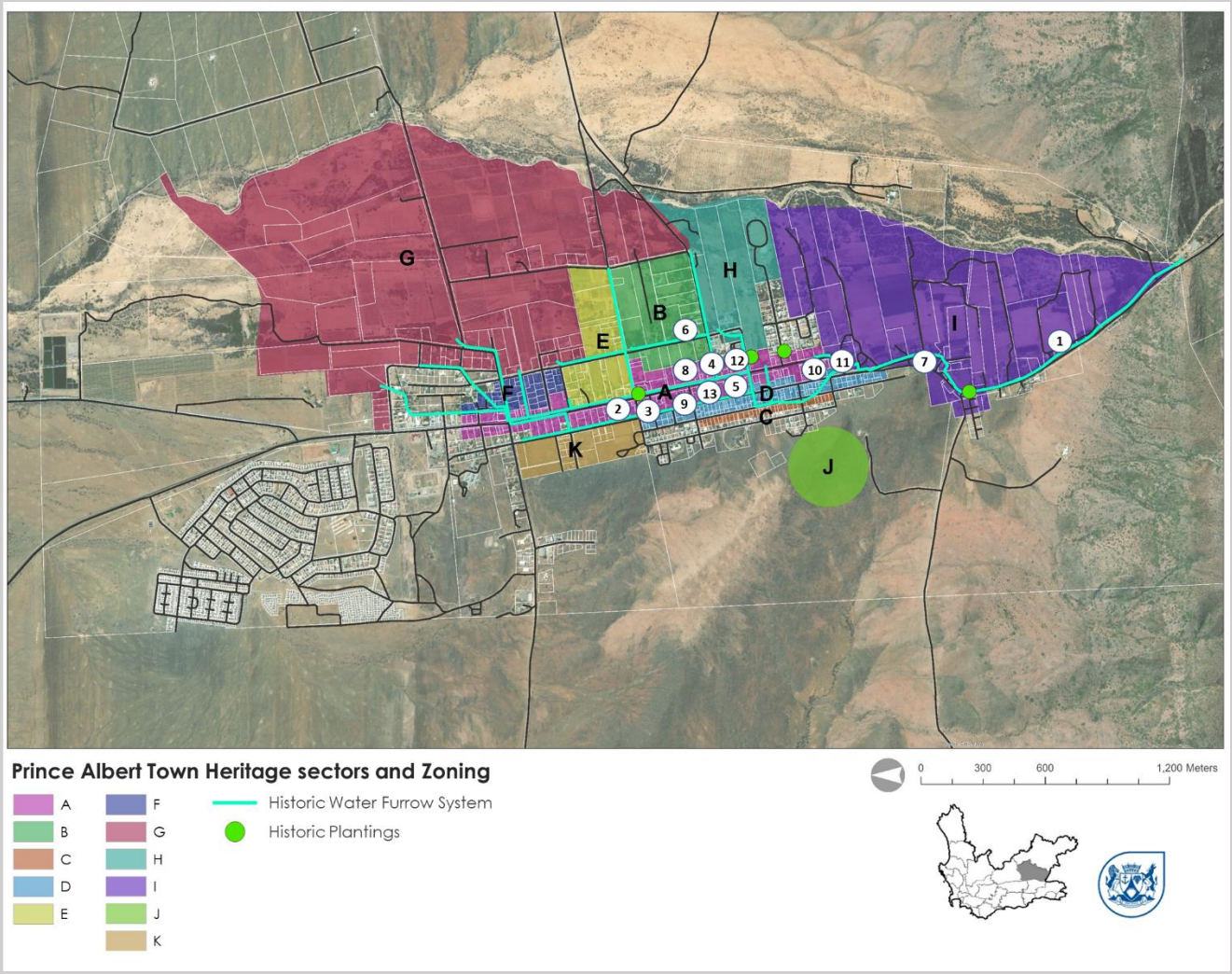


Figure 4.30: Prince Albert Heritage Sectors and Zoning overlaid with Proclaimed Monuments (Numbers correlate with Figure 30 on the following page)

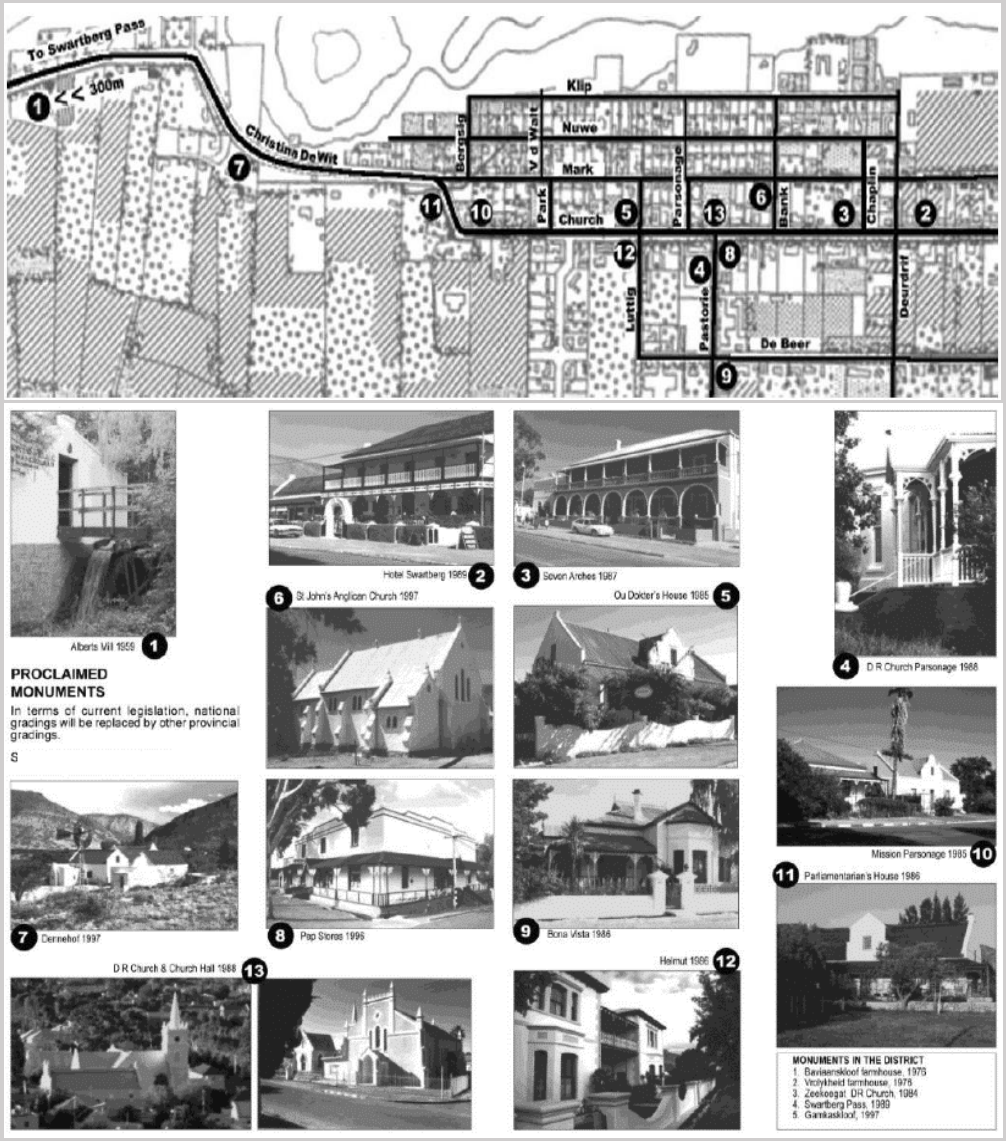


Figure 4.31: Proclaimed Monuments in Prince Albert (source: Prince Albert Heritage Inventory (2009-2011**)**

Figure 4.32: Examples of Karro Style Housing Typologies (source: www.karoospace.co.za)

POLICY A6: PROMOTE RESILIENT, SUSTAINABLE AGRICULTURE & AGRI-PROCESSING

Agriculture contributes 46.4% to overall employment in Prince Albert Municipality (MERO, 2020) and provides opportunities to maintain and enhance both job and food security. It is also the basis for Prince Albert's tourism activities and is therefore a priority for both the municipality and the district.

Figure 4.33 across shows the agricultural activities map for the Central Karoo District Municipality which includes Prince Albert Municipality Figures 4.34-36. The page thereafter shows the town agricultural maps for Prince Albert, Leeu Gamka and Klaarstroom. The preservation of agricultural land and the integrity of agricultural operations must be protected and enhanced. The conversion of irrigated, arable land is not supported in terms of this SDF and the Subdivision of Agricultural Land, Act (Act 70 of 1970), section 3 (f), which states that "no area of jurisdiction, local area, development area, peri-urban area or other area … of the definition of 'agricultural land' in section 1, shall be established on or enlarged so as to include, any land which is agricultural". This underscores the need to protect agricultural land as stipulated in the Draft Preservation and Development of Agricultural Land Bill (2016):

It is in the national interest to preserve, and promote sustainable use and development of agricultural land to produce food, fuel, and fibre for the primary purpose to sustain life further recognising that high value agricultural land is a scarce and non-renewable resources; and recognising that it is in the interest of everyone to have agricultural land protected, for the benefit of present and future generations. The sustainable development of agricultural land requires the integration of social, economic and environmental considerations in both forward planning and ongoing agricultural land management to ensure that development of agricultural land

Policy A5 Guidelines:

(i) Encourage water-resilient farming practices that enable more efficient and productive use of water.

(ii) Encourage the use of drought-resistant crops and crop hybrids that tolerate drought conditions and use less water.

(iii) Actively and aggressively promote value-add to all locally produced agricultural products in the region.

(iv) Ensure farmers in the region are granted the necessary rights and building plans on their farms to promote agri-processing and job creation, but in a way that doesn't undermine Karoo charm and character (i.e. designed well and fitting in well with the landscape).

(v) Provide the necessary farmer support for drought relief, water use efficiencies and agricultural expansion in the region, with a specific focus on emerging farmers.

(vi) Implement catalyst economic development projects such as SMART gardening, Agri Parks and Dry Fruit Facility and plantation. Land near Prince Albert air strip and behind the EE Centre is suitable.

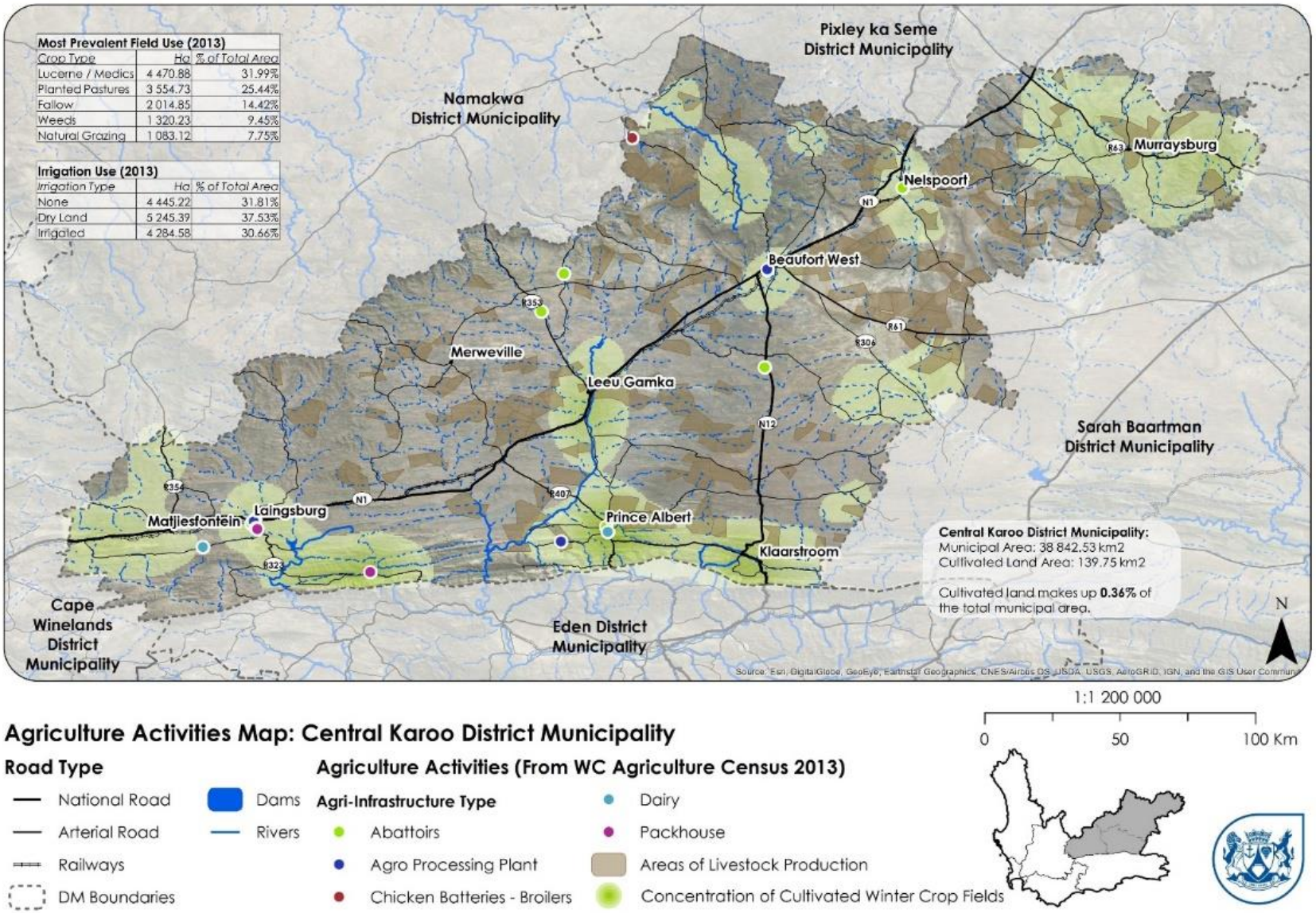


Figure 4.33: Agricultural Activities Map for the Central Karoo District Municipality

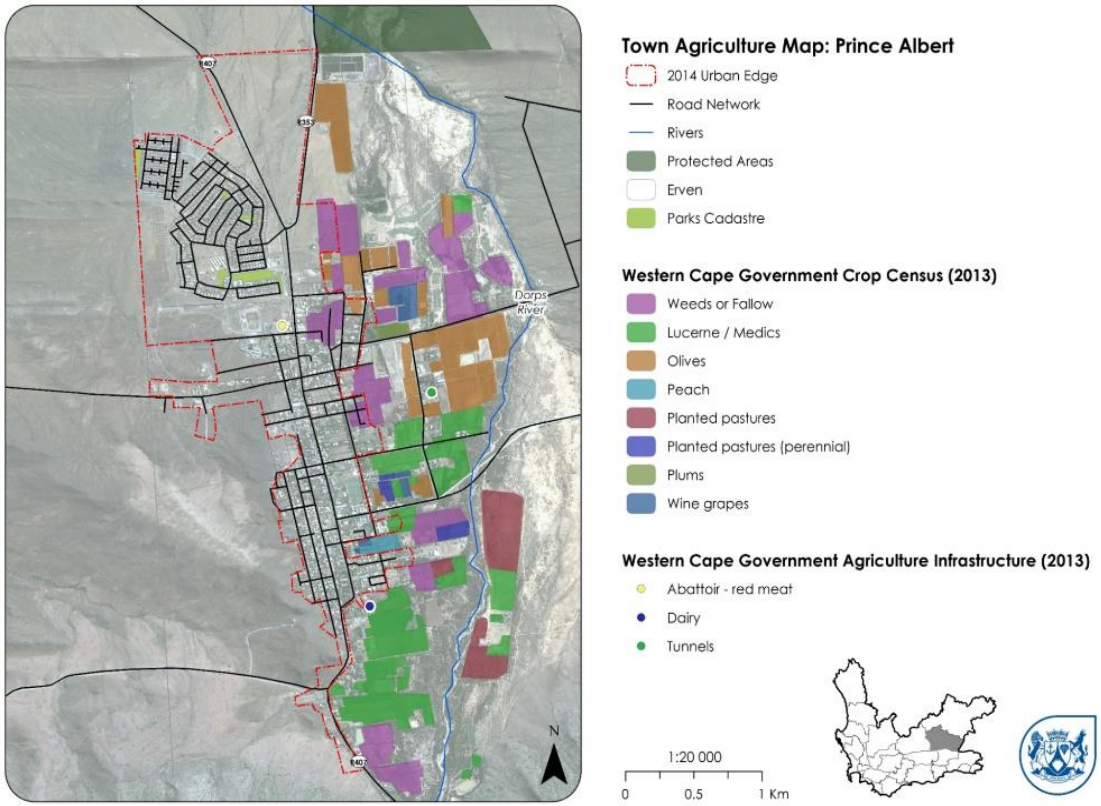


Figure 4.34: Agricultural Activities Map for Prince Albert Town

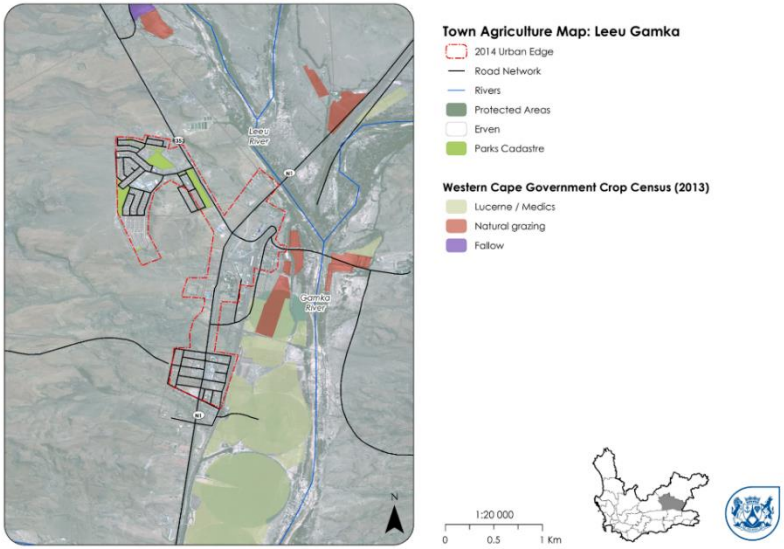


Figure 4.35: Agricultural Activities Map for Leeu Gamka

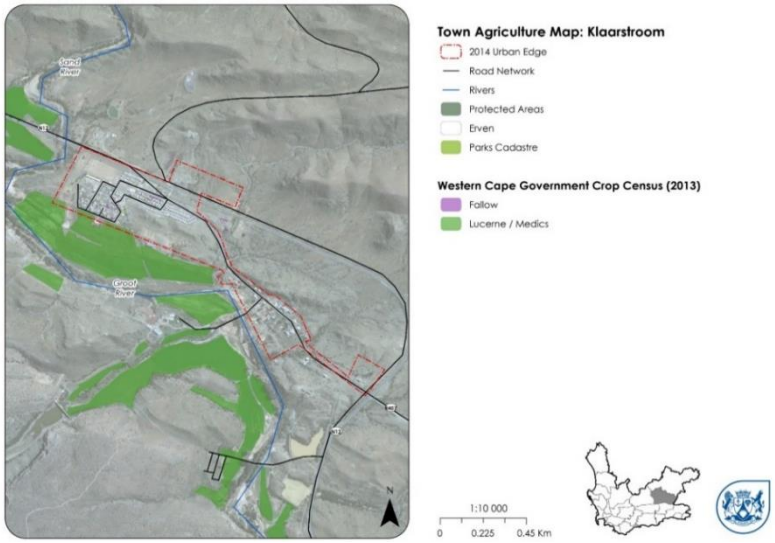


Figure 4.36: Agricultural Activities Map for Leeu Gamka

POLICY A7: SHALE GAS DEVELOPMENT (SGD)

Figure 4.37 shows the Biodiversity Land Use Map for CKDM which includes Exclusion Areas for Phase 1: Exploration of SGD. To date, SGD is still only a theoretical proposal within the Karoo Basin. Most notably, there is limited evidence that shale gas reserves can be viably recovered within the Karoo Basin, and estimates of shale gas reserves vary widely. The extent and viability of the gas reserves in the Karoo Basin, as well as the characteristics of the subsurface environment, is largely unknown. Satisfactory levels of certainty can only be ascertained by means of exploration or drilling into the target shale deposits. If hydrocarbons are encountered, a limited amount of hydraulic fracturing is then undertaken.

Policy A6 Guidelines:

i. Natural gas represents an opportunity for economic development in the Western Cape (and South Africa as a whole).

ii. With South Africa focusing on its climate change commitments, natural gas should only be regarded as a transition fuel on the way to a reliance on increased renewable energy generation. The use of natural gas must occur in support of renewable energy, not at the cost thereof, or as an alternative thereto.

iii. All impacts of this activity, on ground water resources specifically, **must** be adequately mitigated if it is to proceed in the Karoo basin.

iv. Critical Biodiversity Areas, Environmental Support Areas, Protected Areas and areas with valuable aquifers **must** be protected from shale gas extraction or any other kind of environmentally compromising activity.

v. Local communities potentially exposed to negative air quality because of shale gas extraction and related activities must be protected by an adequate buffer.

vi. Agricultural, tourism, visual and heritage areas that are deemed sensitive to shale gas extraction must be avoided as per the CSIR's Shale Gas Strategic Environmental Assessment (2017).

vii. Information gathering and evidence-based policy development remain key priorities for providing relevant information upon which decisions can be taken.

viii. When considering Karoo shale gas as a possible source of natural gas, the following must be considered: the anticipated shale gas drilling costs in South Africa may be significantly higher than those of the United States due to the lack of infrastructure; the remoteness of the gas reserves (i.e. far away from the markets); a lack of drilling technology and expertise; an inadequate institutional context (i.e. regulatory framework, human resources and knowledge capacity); undeveloped markets; and socio-ecological implications, inclusive of latent environmental impacts.

ix. There is inadequate information to support or oppose full or large-scale production of shale gas. The WCG does however, acknowledge that the need for information necessitates the commencement of exploration.

x. The WCG supports shale gas exploration conducted in a phased manner, with evidence-based decision making. A prerequisite however, is an improved state of readiness of both government and non-governmental stakeholders prior to the commencement of exploration activities. This includes the improvement of the regulatory and broader institutional framework based on the findings of the SEA process. Significant progress has been made in this regard through, for example, establishing a regulatory framework for hydraulic fracturing, although it is acknowledged that a lot must still be done to review and enhance our institutional framework.

xi. **Support for the commencement of exploration activities does not constitute support for the production phase of shale gas development**. The need for information is still a primary aim of the exploration phase in understanding the extent of the shale gas resource as well as the receiving environment. Once this information has been considered, an informed (and evidence-based) decision to move into the production phase for SGD can be taken. This is inclusive of the open and transparent consideration of information generated through the exploration phase.

xii. Should shale gas prove to be a viable environmentally sustainable source of natural gas, the WCG will consider both the potential risks and opportunities related to shale gas development, including how these may affect the Karoo environment. The WCG is in the process of evaluating its readiness to respond to SGD demands if exploration goes ahead within the Karoo Basin of South Africa.

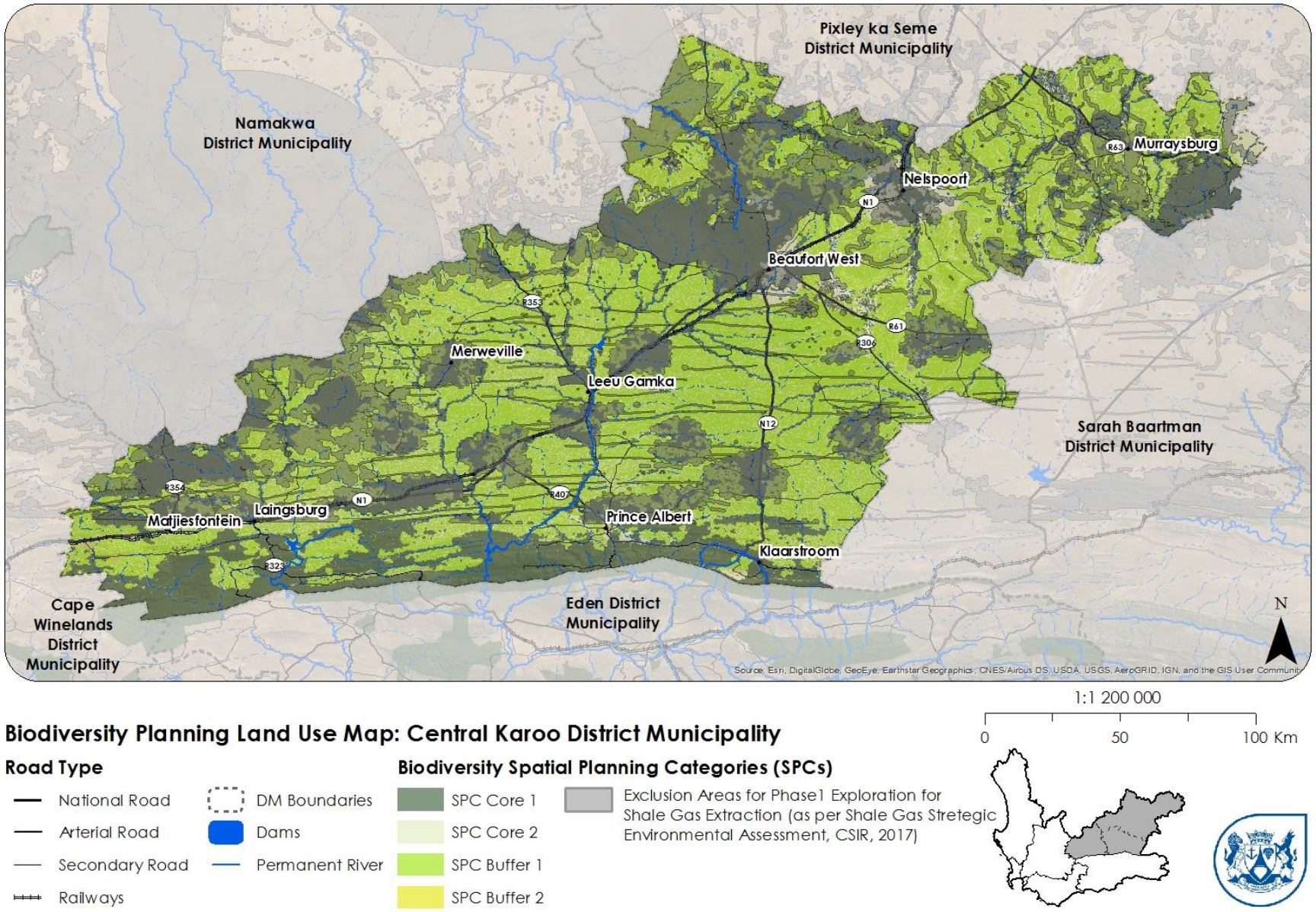


Figure 4.37 Biodiversity Land Use Map for CKDM which includes Exclusion Areas for Phase 1: Exploration of Shale Gas

POLICY A8: LAND REFORM SUPPORT

Figure 4.38 shows the FPSU Catchments for the Central Karoo while Figure 4.39 shows the Land Reform Projects for Prince Albert Municipality. The following sets out five criteria that must be used to identify Strategically Located Land (SLL) for land reform in Prince Albert Municipality. These criteria should be used to inform the acquisition of farms in rural areas for land reform purposes.

Policy A7: Guidelines

i. The farm should fall within the Farmer Production Support Unit (FPSU) catchment area, which indicates its proximity to the nearest town, potential markets and accessibility to the District road network. The FPSU catchment area is defined as being within 60 km of an FPSU.

ii. The farm must not fall within a Spatial Planning Category (SPC) or Biodiversity Spatial Plan area that indicates it as sensitive or having significant constraints (i.e. in a core or buffer SPC). Ideally, an Agricultural SPC is the most suitable land for acquisition purposes. This may not be a consideration if the farm is intended to be used for tourism (non-farming) purposes due to its natural beauty or if the intent is to sustainably harvest biodiversity (such as fynbos).

iii. The farm should not contain significant amounts of steep slopes (i.e. slopes above 12%).

iv. Land ownership: state owned land should be first considered for land reform purposes, before privately-owned land is acquired for land reform purposes.

v. The farm must have access, or have the potential to access, sufficient water to sustain its operations.

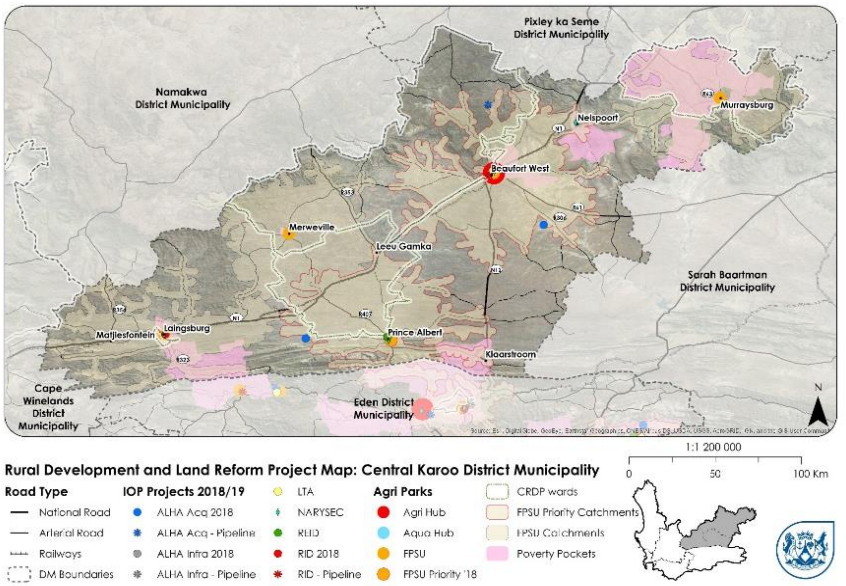


Figure 4.38: Rural Development and Land Reform Map for Central Karoo

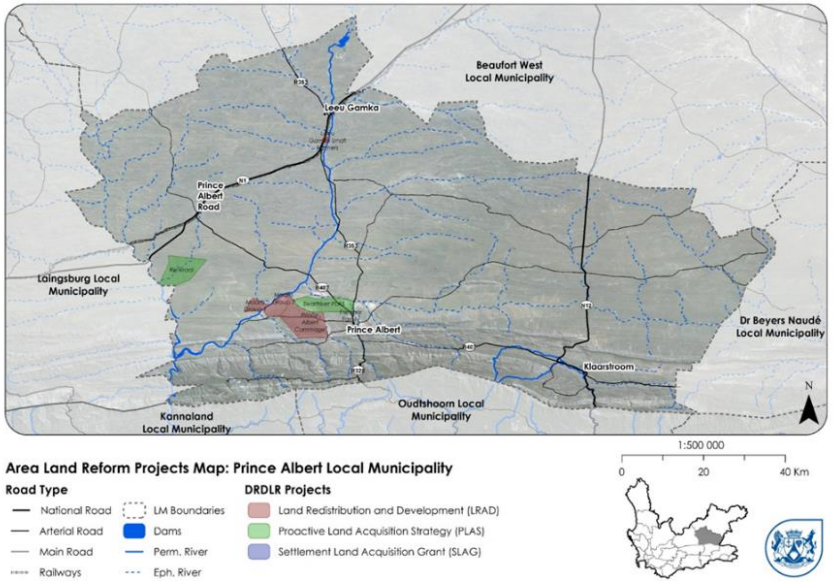


Figure 4.39: Area Land Reform Projects in Prince Albert Municipality

COMPOSITE STRATEGY A MAP: A REGION THAT PROTECTS THE ENVIRONMENT, ENHANCES RESILIENCE AND CAPITALISES ON AND HONOURS THE KAROO CHARM IN SUPPORT OF A VIBRANT PEOPLE AND GROWING THE ECONOMY

Figure 4.40: Composite Strategy A Map for Prince Albert Municipality

4.6.2 STRATEGY B: IMPROVE REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT ECONOMY

Figure 4.41 shows the Regional and Rural Accessibility Map for PAM. The transport system of the municipality must be appropriate and affordable for both the inhabitants of the region and the people passing through. Only 15% of the municipal road network is tarred and given the limited budget, it is important to prioritize maintenance and upgrading of roads where necessary and therefore continued implementation of the Central Karoo Mobility Strategy and the Prince Albert Integrated Transport Plan is important.

POLICY B1: IMPROVE INTER SETTLEMENT CONNECTIVITY

The following route hierarchy must be maintained:

Primary Routes and Roles

N1: National governed through SANRAL, district connector between Beaufort West and Cape Town, 63 km's through PAM.

N12: 67 km's through PAM Considered both National and Trunk therefore governed by (SANRAL & WCG DTPW). Connects Klaarstroom to Beaufort West North and Oudtshoorn in the South). The ITP indicates that the road condition is very poor to fair.

R407: Connects Prince Albert Town to the N1 and Klaarstroom through the Kredouw Pass. The ITP indicates that the surface conditions vary from poor, fair and good in certain places.

Gravel routes:

- R353: Leeu Gamka to Prince Albert Town
- R328: Swartberg Pass to Oudtshoorn (16kms') - key tourism route degraded, requires restoration and monitoring after heavy rainfall.
- Seekoegat Road: West of Prince Albert Town
- Magrieta Prinsloo: East of Prince Albert Town
- Weltevrede Road: East of Prince Albert Town

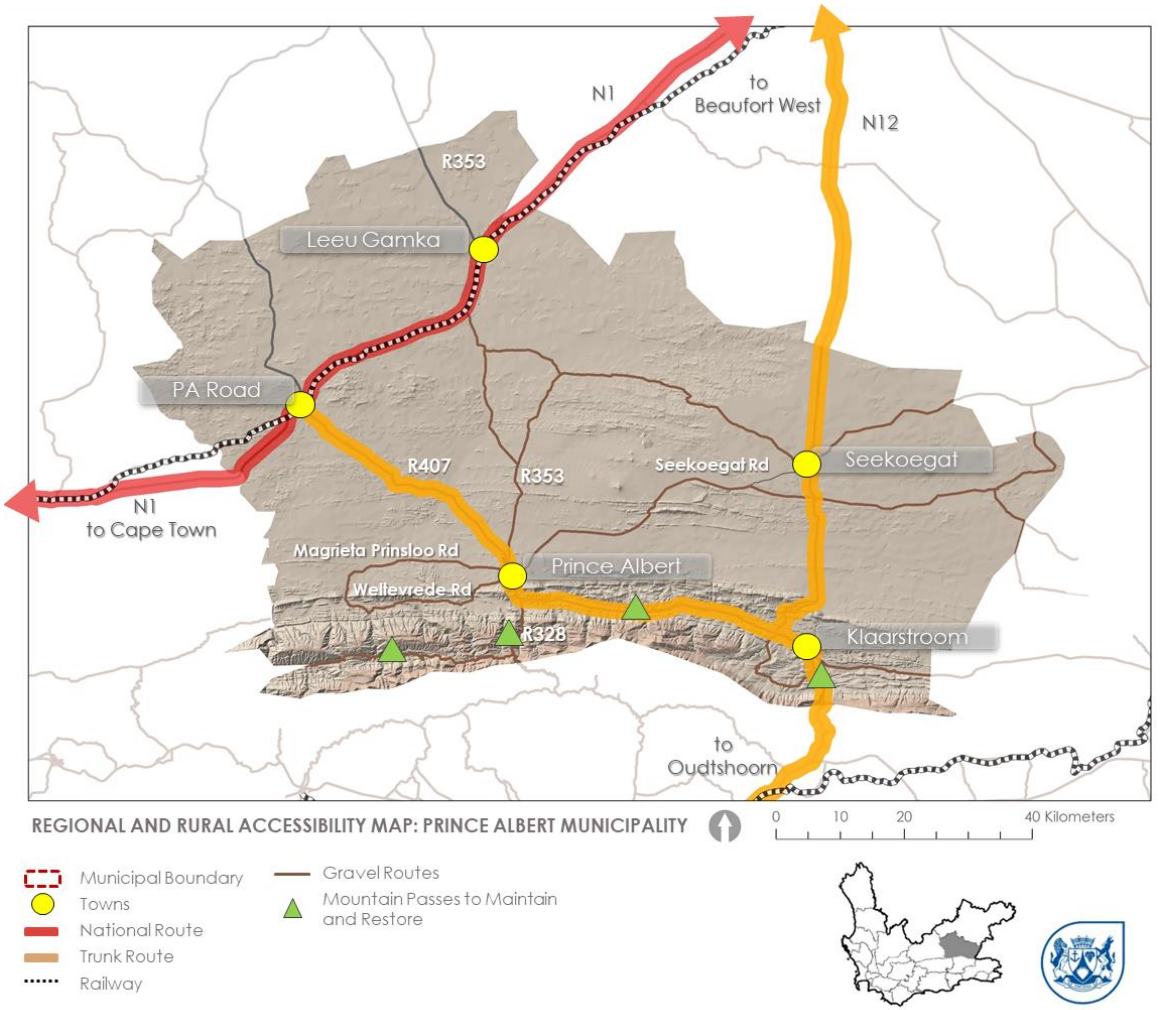


Figure 4.41: Regional and Rural Accessibility Map for PAM

POLICY B2: RURAL MOBILITY & SCHOOL LEARNER TRANSPORT

Figure 4.42 shows the map of Schools and School Leaner Routes in Prince Albert Municipality Learner transportation is provided by the Western Cape Department of Education from the rural settlements to three (3) schools Klaarstroom Primary, Prince Albert Primary and Zwartberg High School. Since Prince Albert is generally a rural municipality, learner transportation services are provided to outlying areas which are more than 5 km from the nearest school and where no public transportation is available. Areas around Leeu-Gamka and several other areas do not have learner transportation services.

Policy B4 Guidelines:

i. Invest in rural pedestrian safety and scholar transport safety through partnership with the Western Cape Department of Education and the CKDM.

ii. Develop a strategy aimed at offering cost-effective transportation services for rural communities

iii. Lobby Western Cape Department of Education to add additionally needed school learner routes for school children from rural settlements.

iv. The roll-out of the rural mobility / accessibility strategies must be mindful that vulnerable groups (women, children and disabled) are disproportionately more dependent on the availability of public transport.

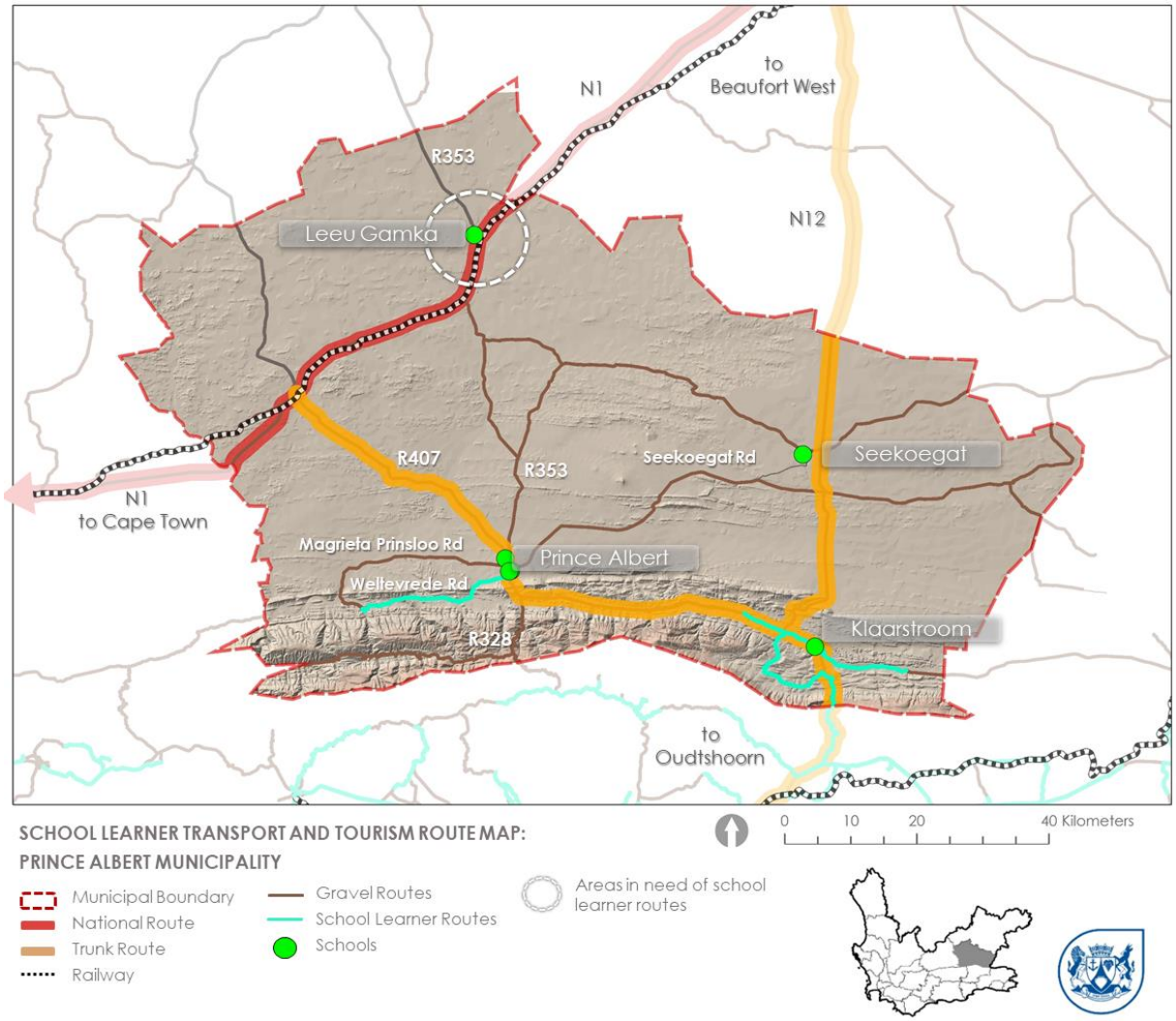


Figure 4.42: Map of Schools and School Leaner Routes in Prince Albert Municipality

POLICY B3: TOWN IMPROVEMENT PLANS FOCUSSED ON NON-MOTORISED TRANSPORT, SAFETY AND GREEN NETWORKS

PAM needs to continue to ensure that it's towns are conducive to both local and tourist passengers (on foot and in car) as well as attractive for businesses to invest in the area. The economic spin off from this cannot be understated.

Walkable towns promote a public environment with a people focus rather than a car focus and can lead to addressing many social and economic problems through improved social interaction, increased spending and diminishing crime. They also provide a way to enhance the ecological connectivity of the town because there is an added green network element of trees. This strategy can be achieved, in part through the beautification measures described below:

Policy B3 Guidelines:

i. All towns should continue to carry out basic beautification measures at their entrances and main streets, including cleaning and sanitation services and tree-planting (in drought-tolerant species). These measures aim to create proud, distinct, clean and attractive spaces through litter, grime, graffiti and weed removal; landscaping and planting; paving and sidewalk regeneration; street furniture installations; lighting improvements; improving safety, security and law enforcement; promoting infrastructure maintenance; as well as putting systems in place for people to report damaged infrastructure and teams in place to respond to this.

ii. Adjacent landowners in Church Street, Prince Albert Town should continue to be encouraged to beautify their frontage zones (See Figure 4.44). This should be accompanied by a pedestrian zone, furnishing zone, bicycle lanes and a tree greening network.

iii. Prince Albert Town should continue to focus on and lobby for funding for implementation of phase 3 and 4 of the ITP Non Motorised Transport Plan (see Figure 4.45), albeit with a revised urban design input that investigates low-cost high-impact measures to increase the appeal of the network. This network should be accomopanied by tree planting as shown in Figure 4.46

Figure 4.43: Examples of beautification, green networks and safety kiosks

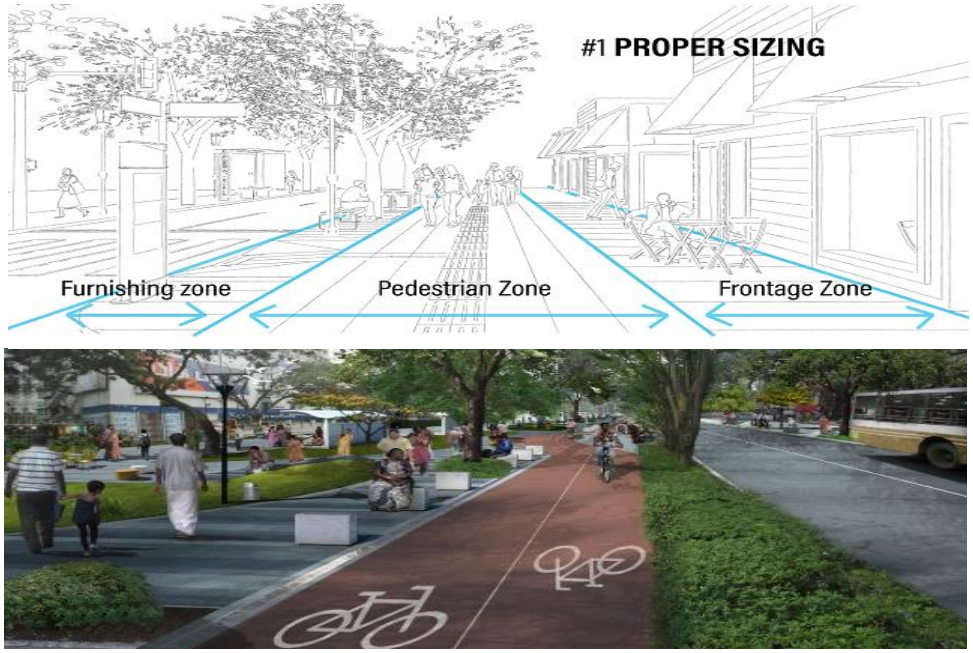


Figure 4.44: Examples of beautification, green networks and safety kiosks

PRINCE ALBERT 2008 NMT NETWORK, PARTICULARLY CHURCH STREET IN RELATION TO BEFORE AND AFTER STREET BEAUTIFICATION EXAMPLES

Figure 4.45: Prince Albert 2008 NMT Network in relation to Beautification measures(Sources: https://za.pinterest.com/pin/308004062014257899/)

EXAMPLE SHOWING PRINCE ALBERT TOWN LOCAL GREEN NETWORK, NMT PLAN FOR ENHANCEMENT AND STREETS FOR SAFETY INITIATIVES

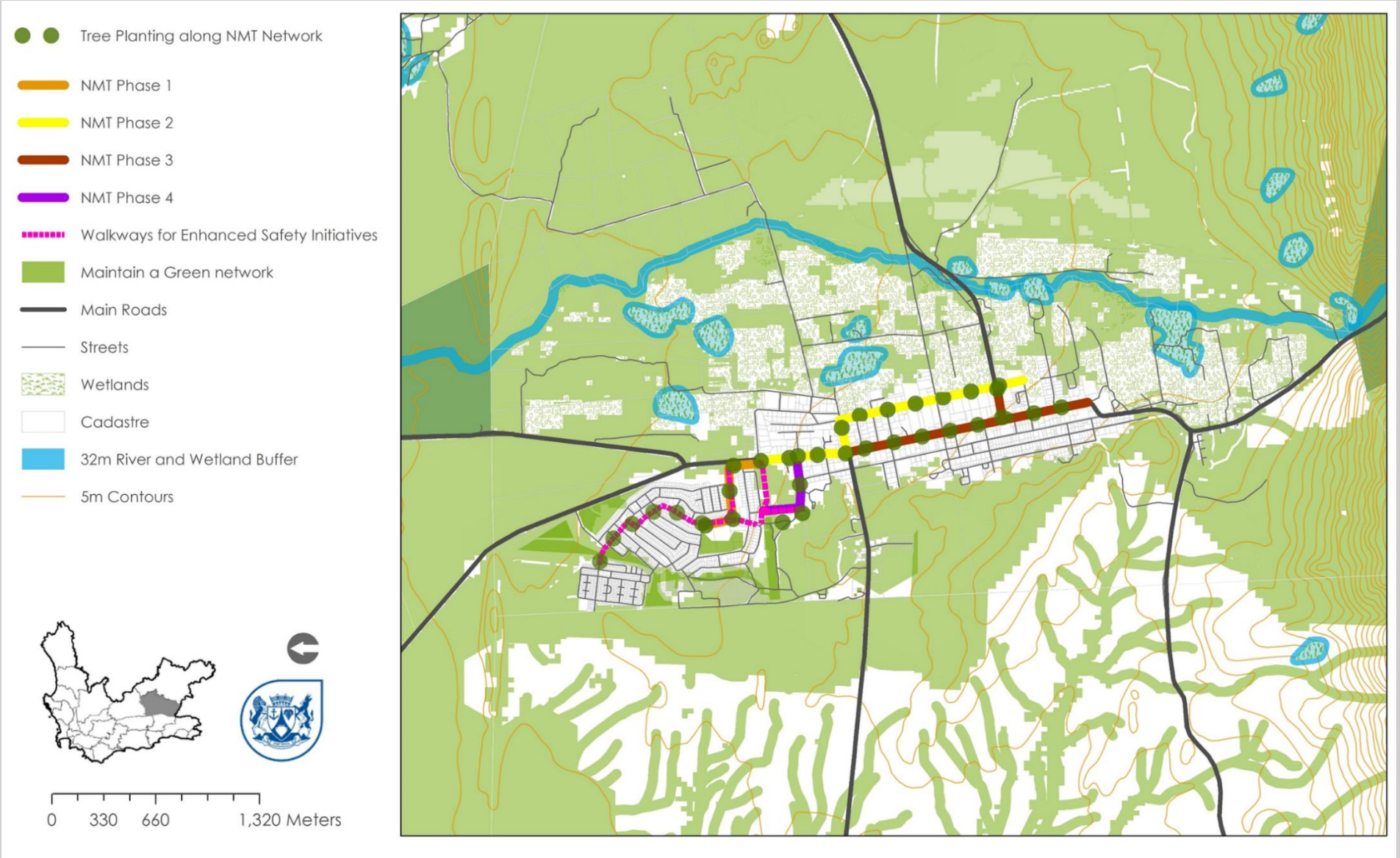


Figure 4.46: Prince Albert Town local green network, NMT plan for enhancement and streets for safety initiatives

COMPOSITE STRATEGY B MAP: IMPROVED REGIONAL AND RURAL ACCESSIBILITY AND MOBILITY FOR PEOPLE AND GOODS IN SUPPORT OF A RESILIENT ECONOMY

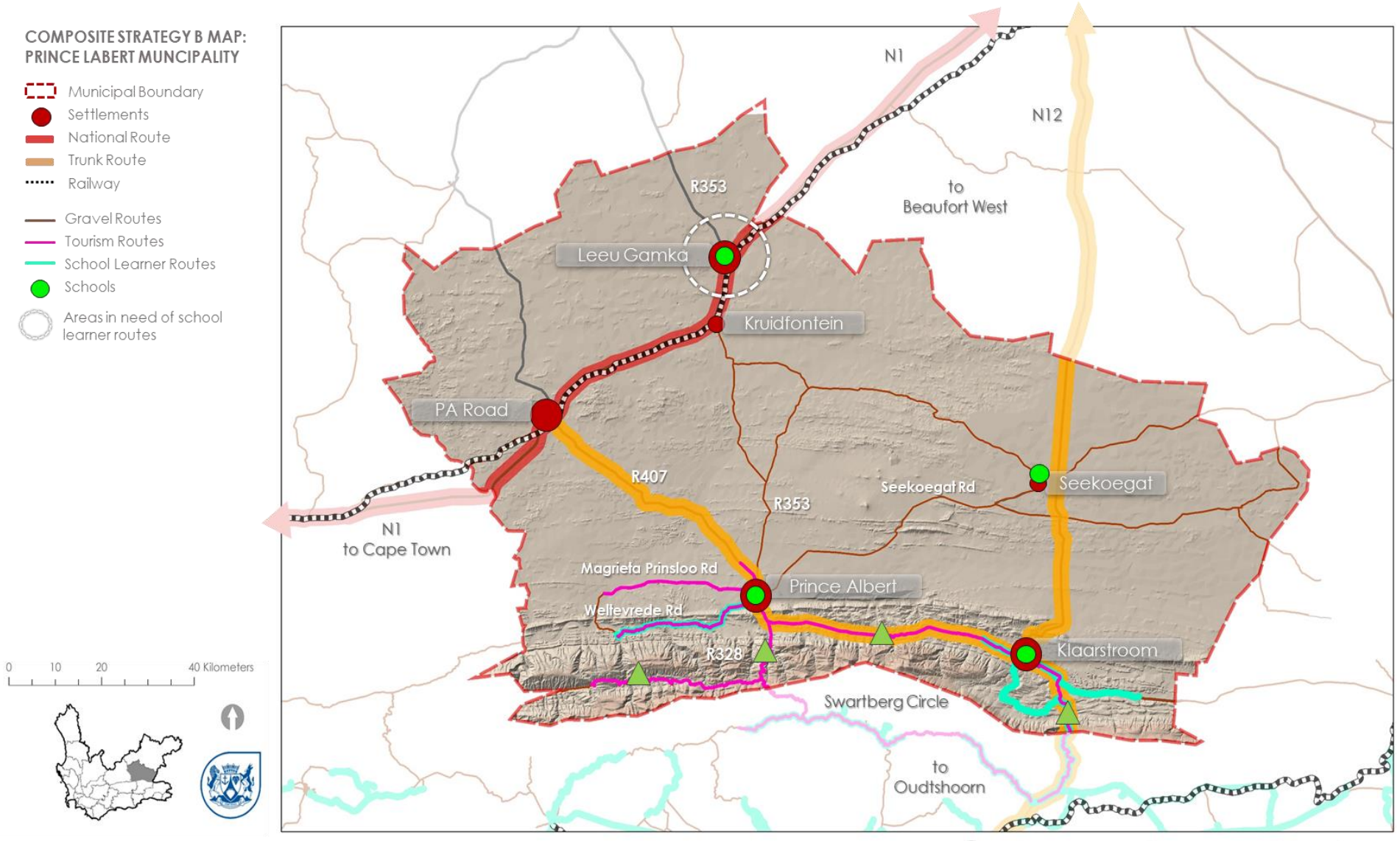


Figure 4.47: Composite Strategy B Prince Albert Town Municipality

4.6.3 STRATEGY C: ALLOCATE GOVERNMENT RESOURCES, INFRASTRUCTURE AND FACILITIES IN A MANNER THAT UPLIFTS AND SKILLS PEOPLE AND FOCUSSES ON MAXIMISING IMPACT ON THE MOST POSSIBLE PEOPLE, WHILE PROVIDING A BASIC LEVEL OF SERVICE FOR ALL

POLICY C1: ESTABLISHING A CLEAR SETTLEMENT HIERARCHY

PAM consists of 4 distinctive settlements, each fulfilling their own distinctive role in the district and municipal economy. These roles are summarised in Table 4.5 across.

The primary administrative centre remains the Prince Albert town centre. Given the limited nature of government resources, there needs to be a strong focus on locating a range of services in Prince Albert Town with more rudimentary services and lower order services in Leeu Gamka and Klaarstroom and mobile service solutions in the sparsest, smallest settlements or hamlets (Prince Albert Road, Seekoegat and Kruidfontein) where there is insufficient demand and insufficient funds for a permanent service.

POLICY C:2 FACILITY CLUSTERING & DESIGN PROTOCOL LINKED TO A CLEAR NODAL HEIRARCHY

Clustering and co-locating facilities and services in accessible locations ensures maximum utilisation of land and resources. Table 4.6 summarises the Nodal Hierarchy to which investment should following. Each node should be accompanied with a design protocol, such as focussing town beautification improvements within the nodal hierarchy.

Policy C1 Guidelines

(i) Promote functional integration and mixed-use as a key component of achieving improved levels of settlement liveability and counter apartheid spatial patters through densification and infill development.

(ii) Continue to lobby for funds for upgrading Prince Albert Integration Precinct.

Table 4.5: Settlement Hierarchy for Price Albert Municipality

SETTLEMENT CLASSIFICATION	SETTLEMENT	FUNCTION/ROLE
Major rural settlement	Prince Albert Town	Specialised inland centre with tourism, medical, educational, commercial and administrative services as wll as servicing surrounding rural areas.
Minor rural settlement	Leeu Gamka and Klaarstroom	Meeting the local convenience needs with basic social facilities for surrounding rural communities.
Hamlet / Housing Cluster	Kruidfontein and Seekoegat	Small residential cluster without commercial or business use.

Table 4.6: Nodal Hierarchy for Prince Albert Municipality

NODE	FUNCTION	FUNCTION/ROLE
Church Street	Activity Spine	Historic tourism street/corridor with educational, commercial, religious and administrative services.
Church / Pastorie Street Node	Historic Town Centre and Facility Cluster	Historic church, business, post office and other social facilities
Integration Precinct	Social facility Cluster	A precinct that connects North End to Church Street via a broader cluster of government and social facilities and housing.
North End Neighbourhood Node	Lower Order Neighbourhood node	Prins Albert Primary School with opportunity to develop
Bitterwater Neighbourhood Node	Social facility Cluster	Leeu Gamka Primary School, Gousblom, Aaalwyn and Granaatbos Street
Leeu Gamka	Lower Order Neighbourhood node	Local Railway Stop, Postal Services, ATMS
Welgemoed Neighbourhood Node	Lower Order Neighbourhood node	Shell Ultra City and BNB's
Klaarstroom Historic Main Street	Local historic street	History, tourism and scenic drive

Figure 4.48 below shows the Settlement hierarchy for Prince Albert Municipality while the Figures 4.49 – 4.50 across shows the proposed nodal hierarchy for Prince Albert and Leeu Gamka Towns. Activity nodes should be managed to concentrate business and activities to achieve critical mass and viable demand thresholds.

Principles of clustering, consolidation and multifunctionality at social nodes are based on the concept that facilities and amenities should be spatially situated in proximity or on the same premises to make more efficient use of public investment, while also serving multiple purposes to ensure for optimal use during the day and night. Examples of how this achieved are shown in Figure 4.50 and 4.51.

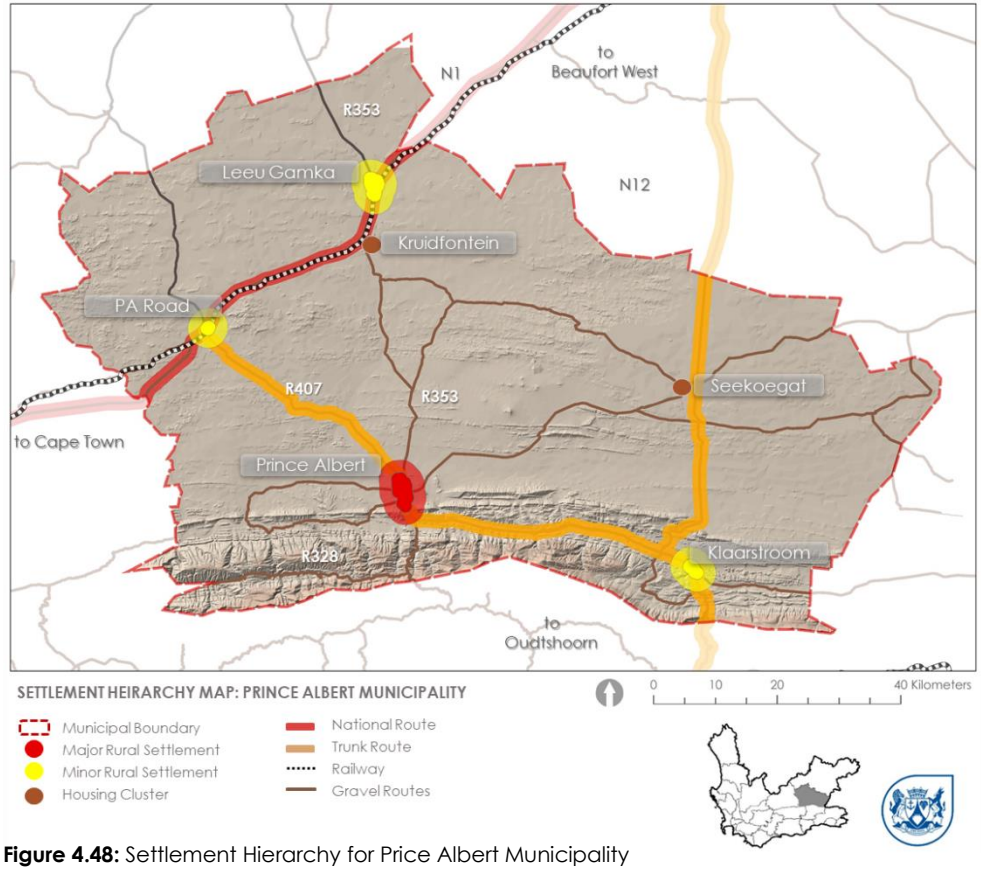


Figure 4.48: Settlement Hierarchy for Price Albert Municipality

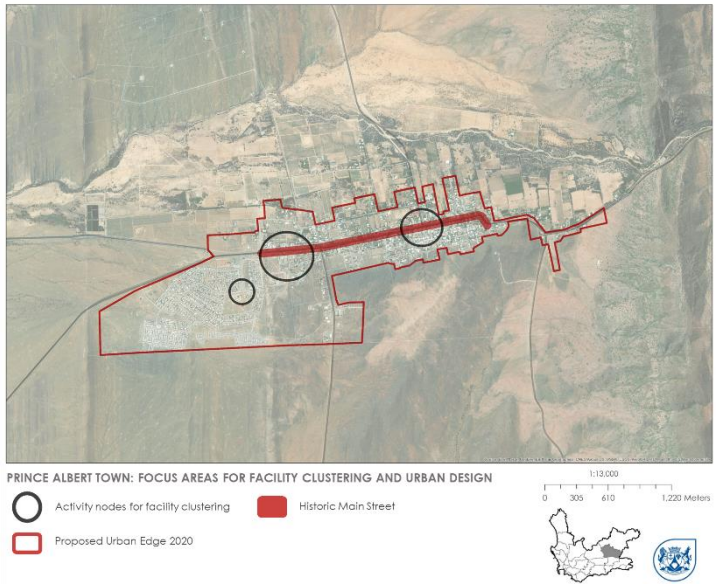


Figure 4.49: Settlement Hierarchy for Price Albert Municipality

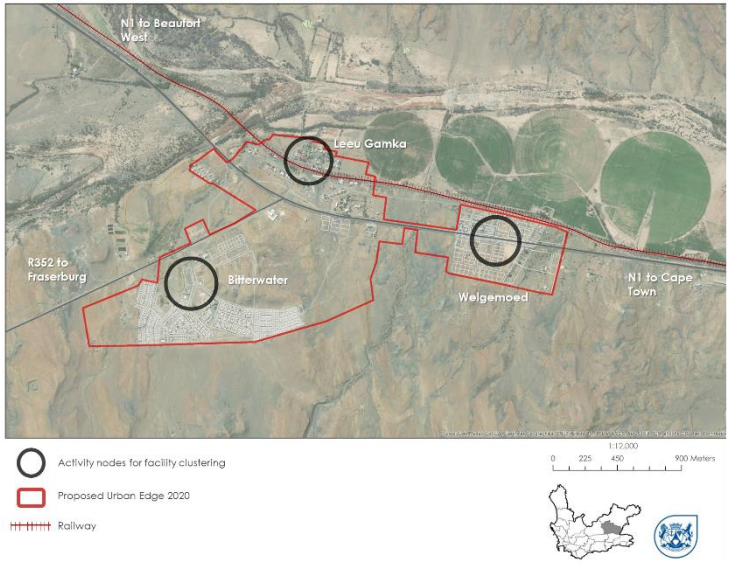


Figure 4.50: Settlement Hierarchy for Price Albert Municipality

EXAMLPE OF FACILITY CLUSTERING & DESIGN AT NODES

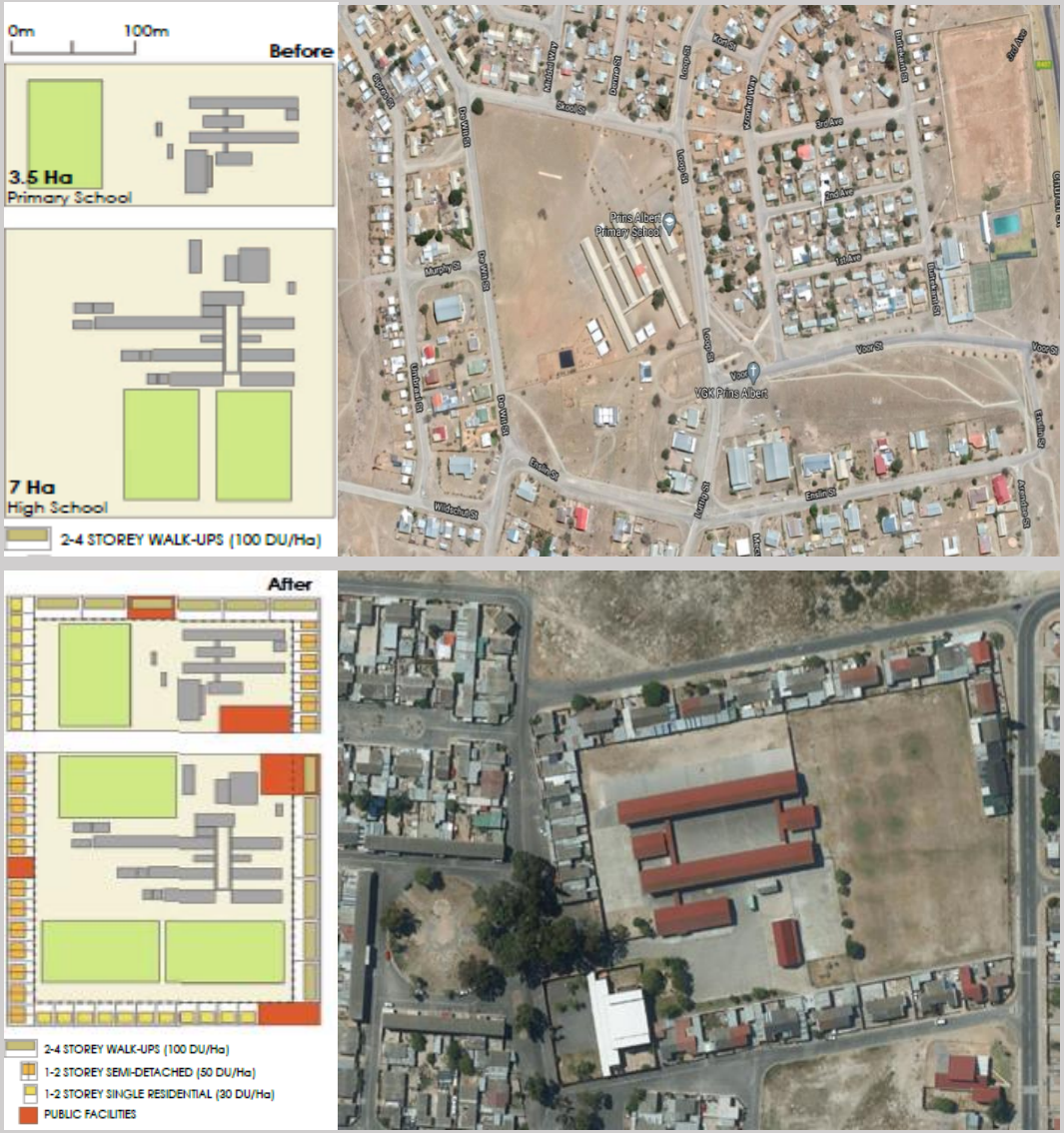
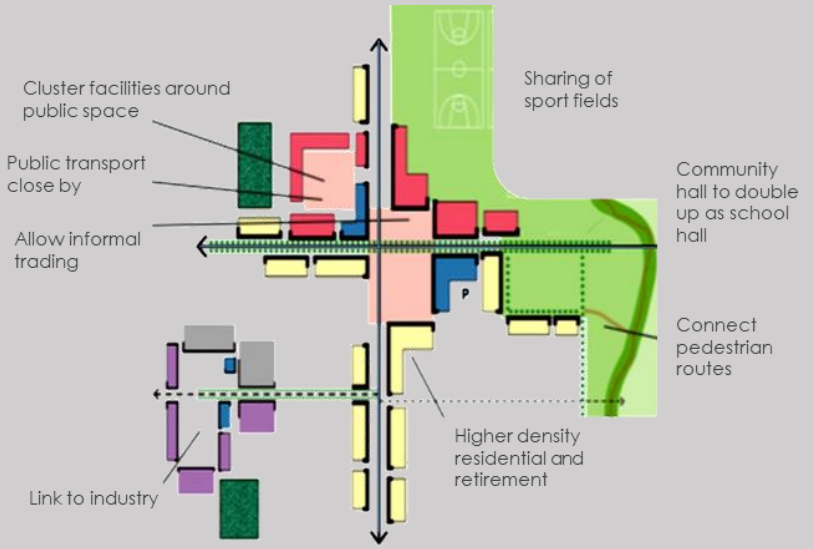


Figure 4.50: How Prince Albert Primary could be 'wrapped' with different housing typologies to provide passive surveillance, optimise land use and include other public facilities (WCG, 2015)



CENTRAL FACILITIES AT CORE NODES/IN CBD		LOCAL/ NEIGHBOURHOOD FACILITIES
FACILITIES TO BE SITUATED WITHIN A CORE ZONE NOT FURTHER THAN 1 KM FROM EACH OTHER	FACILITIES SITUATED NEAR TO CORE ZONE	LOCAL PROVISION AT NEIGHBOURHOOD NODES
Home Affairs Offices	Community Halls	Community Halls
SASSA Offices	Primary Health Clinics	Social grant pay points
Labour Offices	Sports complexes	Children's Homes
Municipal Offices	Libraries	Homes for the Aged
Magistrate's Courts	Police Stations	Sports fields
National Youth Development Centres	Post Offices	Parks
		Schools

(Irrespective of thresholds, some measure of the above social services (i.e. a periodic mobile service at minimum) needs to be provided in all towns where there is no alternative supply that can be reached by residents within 40 km or in the case of the Northern Cape – 100 km)

Figure 4.51: Example of Social Facility Clustering from CSIR to be applied to Prince Albert Integration Precinct and North End Neighbourhood Node

POLICY C3: URBAN EDGE POLICY AND DENSIFICATION

By setting an urban edge, development is contained to avoid encroachment into agricultural and biodiversity land. Urban edges also ensure that low density development does not occur, which is costly for the municipality to service and creates inequitable settlements that are costly to live in and travel from. Land for housing must therefore be used efficiently and, in this regard, municipal financial sustainability secured.

Policy C1 Guidelines

(i) Urban edge boundaries for Prince Albert Town, Leeu Gamka, Klaarstroom and Prince Albert Road have been delineated in this SDF and adhere to National and provincial government targets of increasing the density of urban areas to an average gross dwelling unit density of 25 dwelling units / hectare.

POLICY C4: HUMAN SETTLEMENT FOCUS AREAS

Over the last 25 years, the settlement growth of Prince Albert Town and Leeu Gamka have been largely driven by the housing pipeline in North End and Bitterwater and to a much lesser extent the private sector in Prince Albert Main Town. Based on the population projections and housing numbers presented, Prince Albert Town must be the priority investment area for human settlements, infrastructure and services. Table 4.7 shows the sites that are demarcated in this MSDF for priority government housing in Prince Albert Municipality, specifically Prince Albert Town over the next 5 years.

Figure 4.52-4.54 shows how vacant land can possibly accommodate population growth projections for the towns of Prince Albert, Leeu Gamka and Klaarstroom.

Table 4.7: Settlement Hierarchy for Price Albert Municipality

PRIORITY HOUSING SITE S IN PRINCE ALBERT TOWN	DESCRIPTION
Site A	18.6 ha West of Hospital RE/743
Site B	3.8 ha West of Church Street ERF 897, 164 and 147
Site C	2.5 ha South of Hospital RE/743

It is noted that there was 147 RDP units due in the housing pipeline for Leeu Gamka, and outside of the 2014 SDF urban edge. This location is assumed to be due to existing available bulk infrastructure, however it is crucial that PAM actively desist from providing any more government subsidy housing in settlements other than Prince Albert Town, unless economic opportunities warrant otherwise, because this entrenches a cycle of poverty and creates poverty pockets and poverty traps in the Province.

The 2019-2024 HSDG 5-year delivery plan no longer shows budget for the housing pipeline in Prince Albert Municipality. It is worth noting that National Human Settlements are currently adopting a new housing policy model which will see the state, rather than build houses for people, instead provide them with land so that they can build their own houses. This policy is called the **rapid land release policy** where land is released, cut out, fenced off and given to beneficiaries.

Pending the availability of bulk infrastructure, this has significant implications for Prince Albert Municipality because this strategy may fast track use of the land identified for priority human settlements.

STRATEGY C: PRINCE ALBERT TOWN

Main Activity Street: Church Street

Proposed nodes:

1. Integration Precinct
2. Pastorie and Church Street
3. Loop and Voor Street in North End

Priority housing sites:

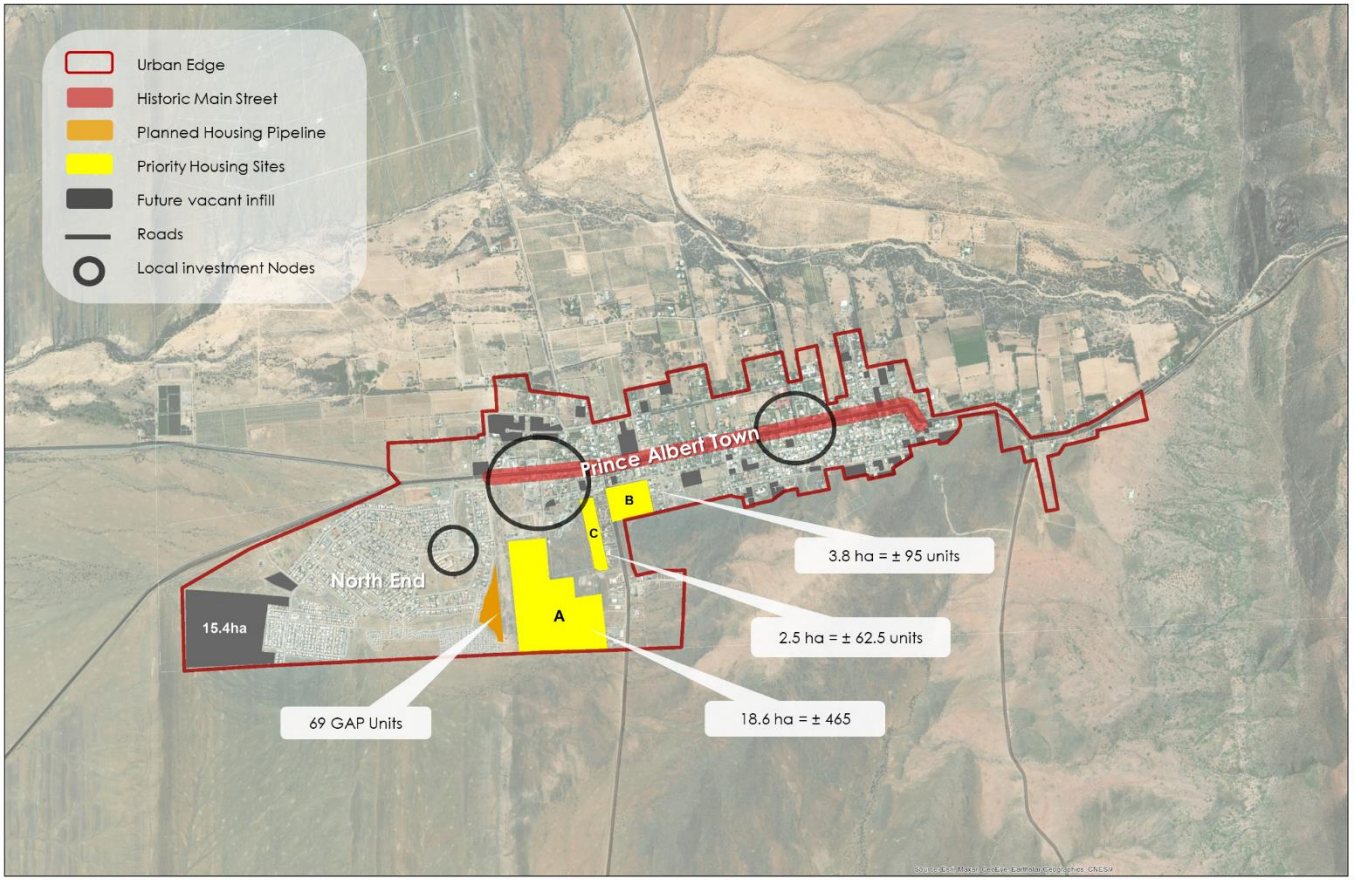
A, B and C (24.9 ha) can accommodate **622 units** at 25 dwelling units per hectare (du/ha). Site B is in Heritage Zone K and housing typologies here should conform to local heritage typologies.

All future vacant infill totals 25 ha which can accommodate 625 units at 25 du/ha.

In the medium growth scenario Prince Albert Town will have **134** additional people and **35** additional households which will require **1.4** hectares of land.

In the medium growth scenario **North End** will have **767** additional people and **202** additional households which will require **8** hectares of land.

The 2020 Housing waiting list is **718** applicants. If this is considered the backlog, the total housing demand between 2020-2030 would be 718 + 35 + 202 = 955 units which would require 38 ha of land.



Area	Growth Rate %	Rank	Base Population 2020	Base No. of Households 2020 (Household size 3.8)	Projected Population 2025	No. of Households 2025	Projected Population 2030	No. of Households 2030	Additional People 2020-2030	Additional Households 2020-2030	Land Required @ 25duha	2020 Housing Waiting List	2020-2030 Total Housing Demand	Land Required (ha)
Prince Albert Town SP	0.67	Low	1153	303	1192	314	1233	324	80	21	0.84	718	859	34
	1.1	Med			1218	321	1287	339	134	35	1.41			
	1.73	High			1257	331	1371	361	218	57	2.29		955	38
North End SP	0.67	Low	6595	1736	6820	1795	7052	1856	457	120	4.81			
	1.1	Med			6968	1834	7362	1937	767	202	8.07			
	1.73	High			7191	1892	7841	2063	1246	328	13.11		1103	44

Figure 4.52: Prince Albert Town Land and Population Analysis 2020

STRATEGY C: LEEU GAMKA

Proposed nodes:

1. Welgemoed Neighbourhood Node
2. Bitterwater Neighbourhood Node
3. Leeu Gamka Railway Node

Planned Housing Sites:

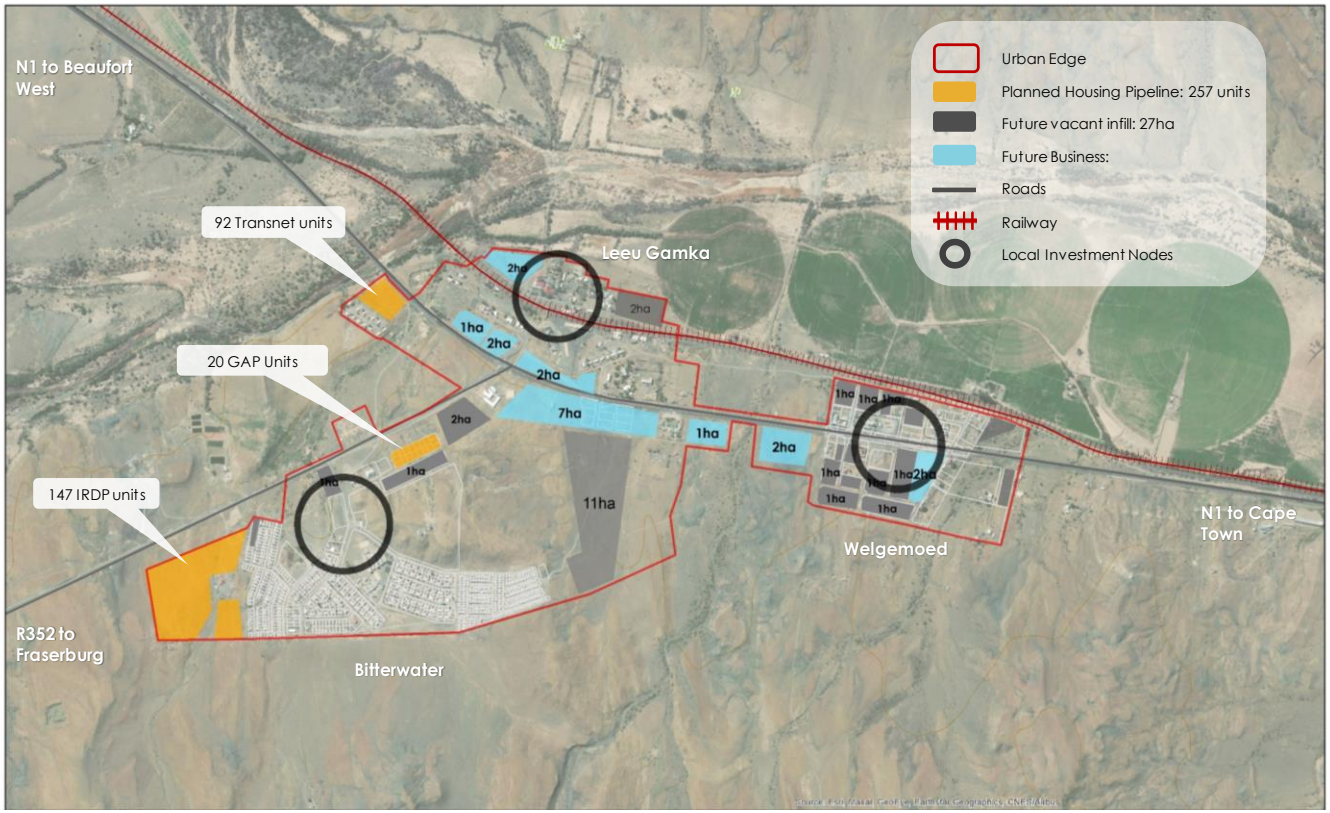
- 92 transnet
- 20 GAP
- 147 IRDP

All future vacant infill (grey) totals 27 ha which can accommodate 675 units at 25 du/ha. A total 18ha of land has been designated for future business, which only if there does become enough opportunity, should housing be pursued in this area.

In the medium growth scenario Welgemoed and Leeu Gamka will have **76** additional people and **20** additional households which will require **0.8** hectares of land.

In the medium growth scenario **Bitterwater** will have **266** additional people and **70** additional households which will require **3.10** hectares of land.

The 2020 Housing waiting list is **335** applicants. If this is considered the backlog, the total housing demand between 2020-2030 would be 20 + 266 + 335 = 425 units which would require 17 ha of land.



Area	Growth Rate %	Growth Scenario Rank	Base Population 2020	Base No. of Households 2020 (Household size 3.44)	Projected Population 2025	Projected No. of Households 2025	Projected Population 2030	Projected No. of Households 2030	Additional People 2020-2030	Additional Households 2020-2030	Land Required @ 25du/ha	2020 Housing Waiting List	2020-2030 Total Housing Demand	Land Required (ha) @ 25 du/ha
Bittewater SP	0.67	Low	2290	603	2368	623	2449	644	159	42	1.67	335	389	16
	1.1	Med			2419	637	2556	673	266	70	2.80			
	1.73	High			2497	657	2723	716	433	114	4.55		425	17
Welgemoed & Leeu Gamka SP	0.67	Low	654	172	676	178	699	184	45	12	0.48			
	1.1	Med			691	182	730	192	76	20	0.80		481	19
	1.73	High			713	188	778	205	124	33	1.30			

Figure 4.53: Leeu Gamka Town Land and Population Analysis 2020

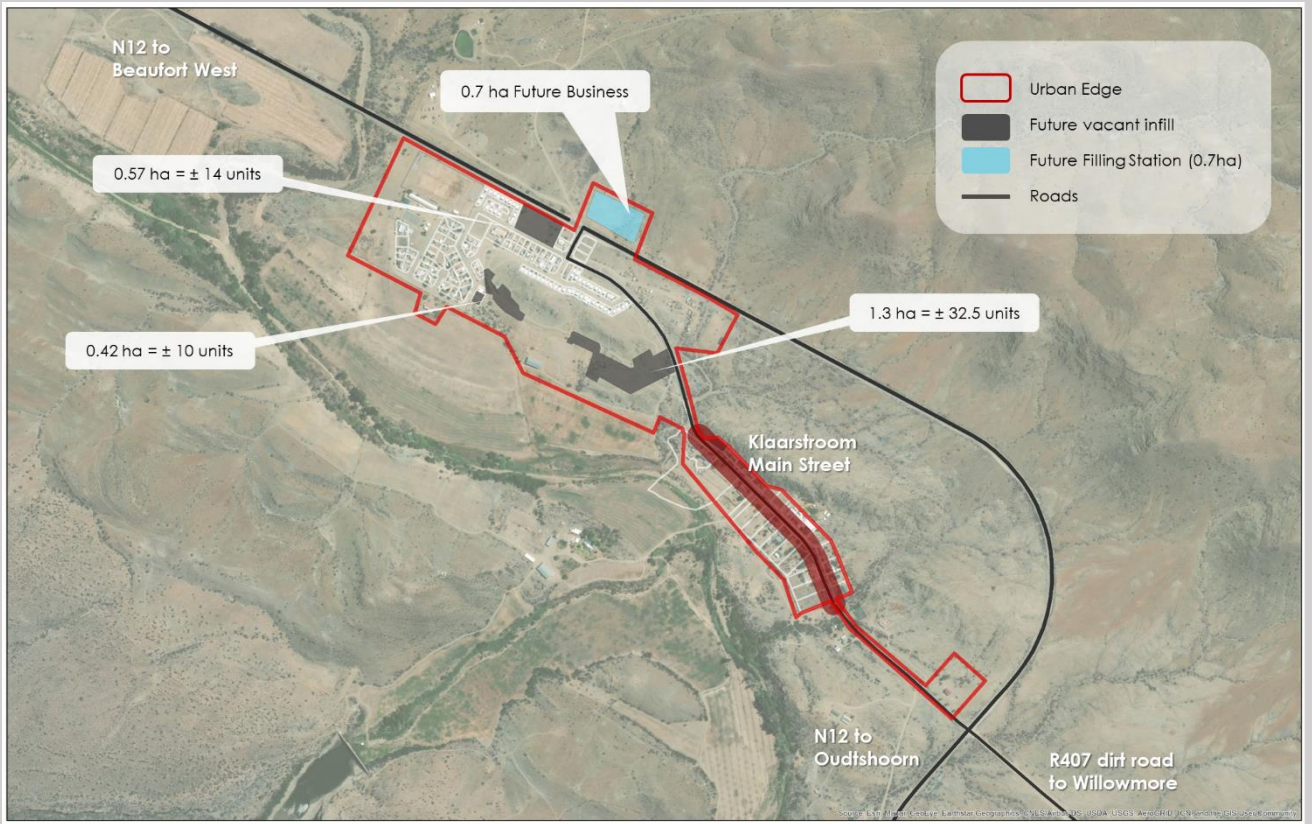
STRATEGY C: KLAARSTROOM

All future vacant infill (grey) totals 2.29 ha which can accommodate 56 units at 25 du/ha.

A total 0.7ha of land has been designated for future business, namely a filling station.

In the medium growth scenario Klaarstroom will have **75** additional people and **20** additional households which will require **0.79** hectares of land.

The 2020 Housing waiting list for Klaarstroom is **144** applicants. If this is considered the backlog, the total housing demand between 2020-2030 would be 20 + 144 = 164 units which would require 7 ha of land which is not available in this settlement. This is unviable for the what the settlement allows and therefore the housing waiting list for Klaarstroom must be scrutinised and cleaned.



Area	Growth Rate %	Growth Scenario Rank	Base Population 2020	Base No. of Households 2020 (Household size 3.44)	Projected Population 2025	Projected No. of Households 2025	Projected Population 2030	Projected No. of Households 2030	Additional People 2020-2030	Additional Households 2020-2030	Land Required @ 25du/ha	2020 Housing Waiting List	2020-2030 Total Housing Demand	Land Required (ha) @ 25 du/ha
Klaarstroom	0.67	Low	644	169	666	175	689	181	45	12	0.47	144	156	6
	1.1	Med			680	179	719	189	75	20	0.79		164	7
	1.73	High			702	185	766	201	122	32	1.28		176	7

Figure 4.54: Klaarstroom Land and Population Analysis 2020

POLICY C5: ASSET MANAGEMENT & INFRASTRUCTURE MAINTENANCE POLICY

Assets and infrastructure in the Prince Albert Municipality, consistent with national and provincial trends, are under severe strain in part due to historic underinvestment in maintenance, rehabilitation and renewal, diminishing budgets, aging assets and infrastructure, and a focus on the creation of new infrastructure rather than on the maintenance of existing infrastructure.

Given the above, the following sets out the asset management and infrastructure maintenance policy that applies to water and sanitation assets, roads and sidewalks, solid waste, building, storm water, and community facility assets.

The core objective of this policy is for PAM to focus on asset and infrastructure maintenance, in recognition that no further spatial development, or growth, can be accommodated without the commensurate focus on maintaining those assets and infrastructure that underpins existing urban growth and development.

Policy C2 Guidelines:

Both the CKDM and Prince Albert Municipality **must** prepare and implement **Asset Management and Infrastructure Maintenance Plans** that are responsive to their mandates and responsibilities (or delegated responsibilities)**.** These asset and infrastructure maintenance plans should:

1. Define **maintenance outcomes** desired per asset / infrastructure class;
2. Identify **all assets** in the Municipality and who is responsible for maintaining (i.e. **develop asset register**);
3. Identify **critical assets** based on the risk and impact of asset or infrastructure failure;
4. Determine the **maintenance options** available and select option that has the lowest life-cycle cost; and
5. Be prepared for any new capital investment infrastructure asset.

Greater detail is available on asset and infrastructure maintenance from various guidelines developed, such as the MFMA Local Government Capital Asset Management Guideline (2008), Guidelines for Infrastructure Asset Management in Local Government (2007) and International Infrastructure Management Manual (2006).

POLICY C6: A RESPONSIVLEY SKILLED POPULATION

Prince Albert will primarily be experiencing job opportunities involved in agri-processing, tourism and energy into the future, with the potential for oil and gas in the medium to long term. Prince Albert Municipality should seek to achieve sufficient, appropriately qualified technical and vocational skilled people to meet the needs of prioritised economic growth areas. The WCG has also identified the following critical occupations for which there is, or will be, high demand, but inadequate supply within **5 priority economic sectors**.

1. Oil and Gas,
2. Agri-processing,
3. Tourism,
4. Energy, and
5. ICT (Broadband).

It is worth noting that the COVID 19 pandemic has accelerated existing trends in technology, telework and automation which will have long lasting effects on how people live and work.

Policy C3 Guidelines:

- Promote people to participate in the tertiary economy – specifically in retail, trade, catering and accommodation (i.e. the tourism sector), business and social services;
- Promote people to enter and create employment opportunities in the **secondary (manufacturing) sector** which is currently barely registering any performance in the region.
- Engage the Department of Education and stakeholders who offer tertiary education and skills development regarding support for school-leavers who have not matriculated or seek vocational training.
- Investigate underutilised facilities can serve as locations for such training initiatives and how the multi-functionality of spaces will be managed.
- Potential Internet expansion through Space X Star Link (Rethink the need for online learning).
- The roll-out of the Green Economy and broadband programmes has the potential to enhance the transformation agenda in the direction of lowering the barriers to entry for businesses which are run by women whom are home-based, and geographically distant from traditional business centres.

4.6.4 STRATEGY D: PARTNERSHIP-DRIVEN GOVERNANCE AND ADMINISTRATION TOWARDS IMPROVED FINANCIAL AND NON-FINANCIAL SUSTAINABILITY AND RESILIENCE

The Prince Albert Municipality cannot, alone, address many of the social, economic and environmental issues and opportunities it faces. It requires cooperation and partnership not only with other spheres of government, but also partnerships with civic organizations, private sector business and the public at large to comprehensively address many of the challenges.

POLICY D1: SHARED SERVICE CENTRE FOR THE CENTRAL KAROO

Prince Albert Municipality, together with the Central Karoo is a sparsely populated region that can greatly benefit from 'bringing together' the experience, capabilities and finances of the 3 local municipalities (Beaufort West, Laingsburg and Prince Albert) under a single umbrella shared service centre for a range of functions, not least of which is the planning function as defined in SPLUMA, LUPA and the local municipal planning bylaws. Such shared service centres could also include provincial regional offices and expertise as well, if this is required.

A Shared Service Centre Model for the Central Karoo was developed in 2012 but not implemented because of lack of capacity and adequate resources to implement the communication mandate.

This must be implemented as a matter of priority, specifically for the town planning function, but not exclusively so. A shared service is required to split time between the municipalities, as per the proposed model.

POLICY D2: INTEGRATED PLANNING, BUDGETING AND IMPLEMENTATION

The WCG, together with the municipalities of the Western Cape, has implemented an Integrated Work Plan with the intention that all of government seeks to plan, budget and implement in a more coordinated, integrated and sequenced manner. This is in line with the Joint District Approach being used nationally.

Various platforms and engagements take place throughout the year in which integrated planning, integrated budgeting and integrated implementation are reported on and should take place. The Central Karoo DM should use these forums to ensure the implementation of its Integrated Development Plan and Spatial Development Framework.

Various annual engagements are set out in the Integrated Work Plan (2018), as shown in Figure 4.56, which in short are:

- Provincial Strategic Planning in July – ensuring provincial alignment at the strategic label;
- Provincial Top Management & Municipal Managers engagement in September – ensuring provincial and municipal planning engagement over strategic planning alignment;
- Integrated Municipal Engagements (IDP Indaba 1) in October / November – ensuring strategic and technical alignment between provincial government and municipal government;
- Provincial Government Medium Term Expenditure Committee (PGMTEC) 1 & 2 in November and January for provincial budget alignment; and
- Local Government Medium Term Expenditure Committee (LGMTEC) engagements in April / May to ensure municipal budget alignment.

The new district-based model, with the process outline in Figure 4.57, attempts to address the need for a capable and developmental state. The aim of a district-based approach, is to focus on regional collaboration in the 44 districts and eight metros nationwide, which will attempt to ensure that municipalities are properly supported and adequately resourced. The new district-based service delivery model will aim to break down the silos between the different spheres of government, in a bid to improve service delivery in the 257 municipalities across the country

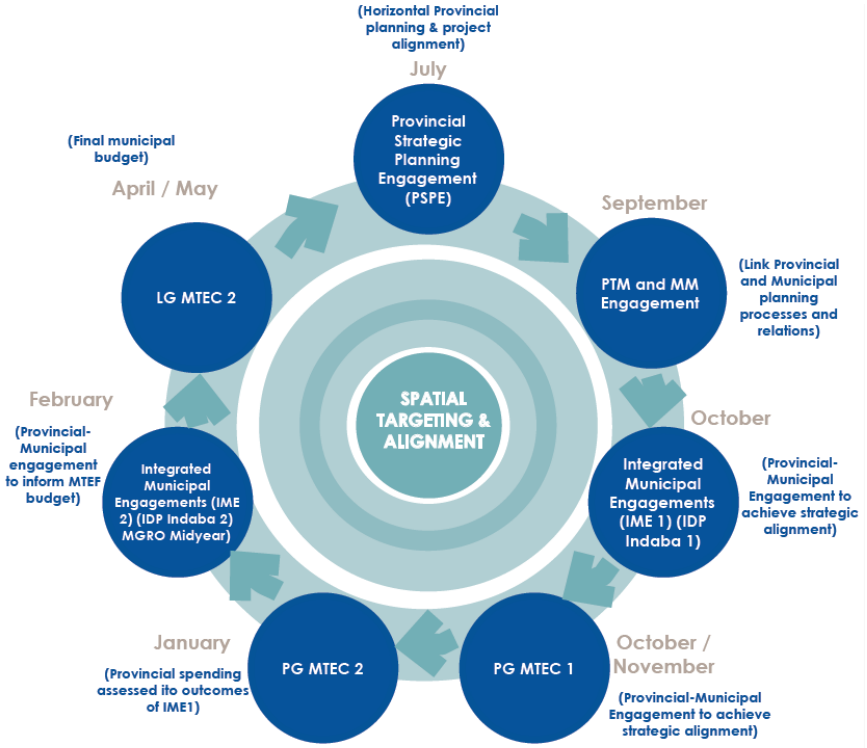


Figure 4.56: Diagram of various annual engagements are set out in the Integrated Work Plan (2018)

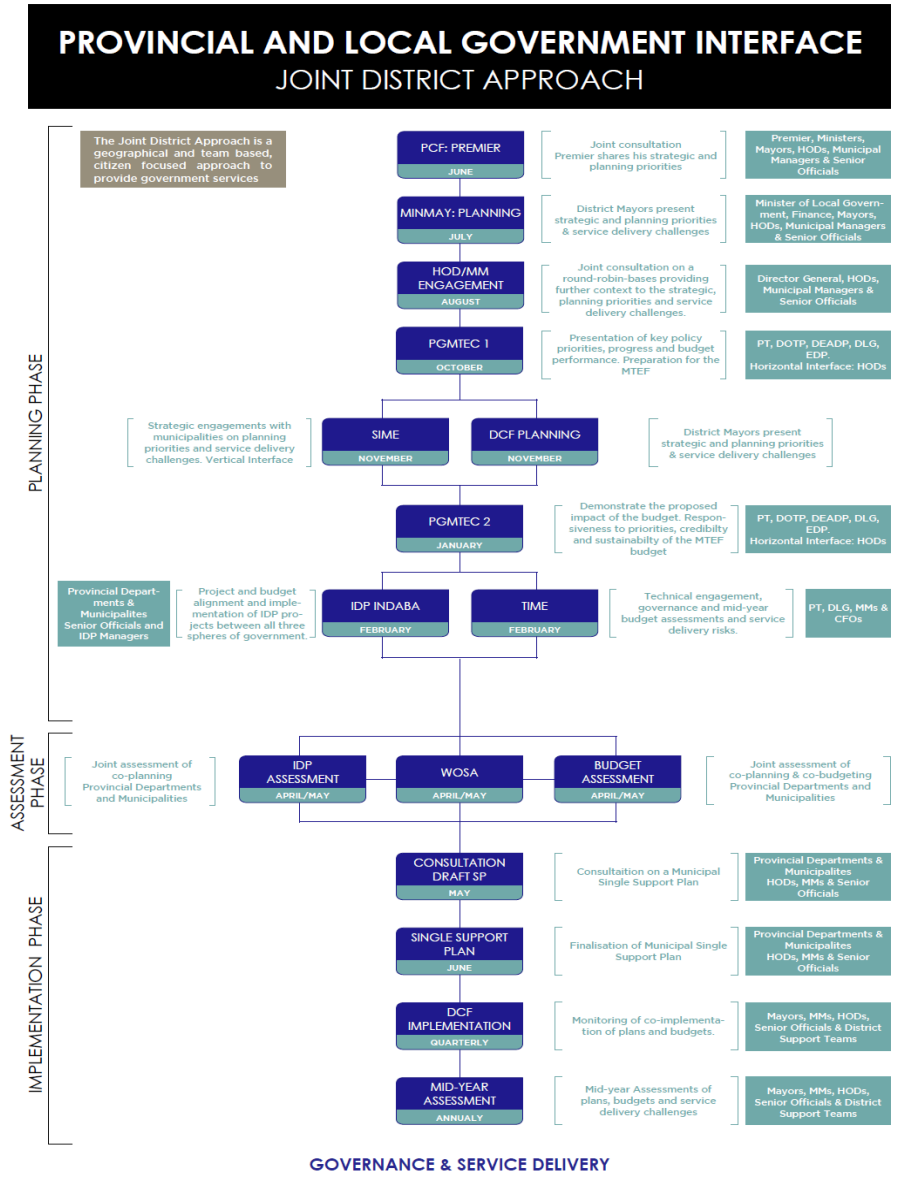


Figure 4.57: Diagram of various annual engagements are set out in the Integrated Work Plan (2018)

4.7 PRINCE ALBERT TOWN SPATIAL DEVELOPMENT FRAMEWORK 2020

Over and above being a guideline, the role of the MSDF is to also propose projects that are in support of the SDF. Table 4.8 shows the physical projects proposed from the 2014 Prince Albert Town SDF.

Table 4.8: Projects proposed from 2014 SDF

PROJECT	STATUS
New Municipal offices extension of Thusong Centre	Underway
Development of sports and recreation facilities between north-end and Prince Albert central	Funding to be committed
69 GAP residential development adjacent (West) of North-end to connect to Sports Precinct	Pipeline
Maintenance of internal roads and sidewalks is required, with additions and upgrades to the Non-Motorised Transport network proposed	Ongoing
Landscaping of entrance from the R407 (north) into Prince Albert	Ongoing
Reinforce Church Street as the activity street of the settlement by promoting intensification of architecturally and heritage appropriate developmen	Ongoing
Tree-planting and landscaping of Church Street and North-end	Ongoing
Extension of Mecuur Street	Still

Figure 4.58 shows the 2020 SDF Map for Prince Albert Town. The following important points can be made:

- There are updated 2017 Critical Biodiversity Areas base do on the new Biodiversity Spatial Plan.
- Green Network with continued tree planting, pedestrian and cycle lanes;
- A more contained urban edge to ensure that priority housing sites A, B and C (are developed first. The vacant infill land north of North End is last priority (15.4 ha);
- A heritage overlay zone (as shown in the black diagonal lines) is proposed. This overlay zone must be adopted as part of the municipal zoning scheme bylaw, guiding land use management through the sensitive regard for all applications within these areas;
- 2 local investment nodes and 1 emerging investment node for clustering of social facilities.
- Proposed street lighting for safer pathways;
- Investment programme to evaluate carrying capacity of the Dorps river
- Upgrade: Road Signage and Streets
- Development of Agri Parks hub and plantation in Prince Albert on the air strip and behind the EE Centre;

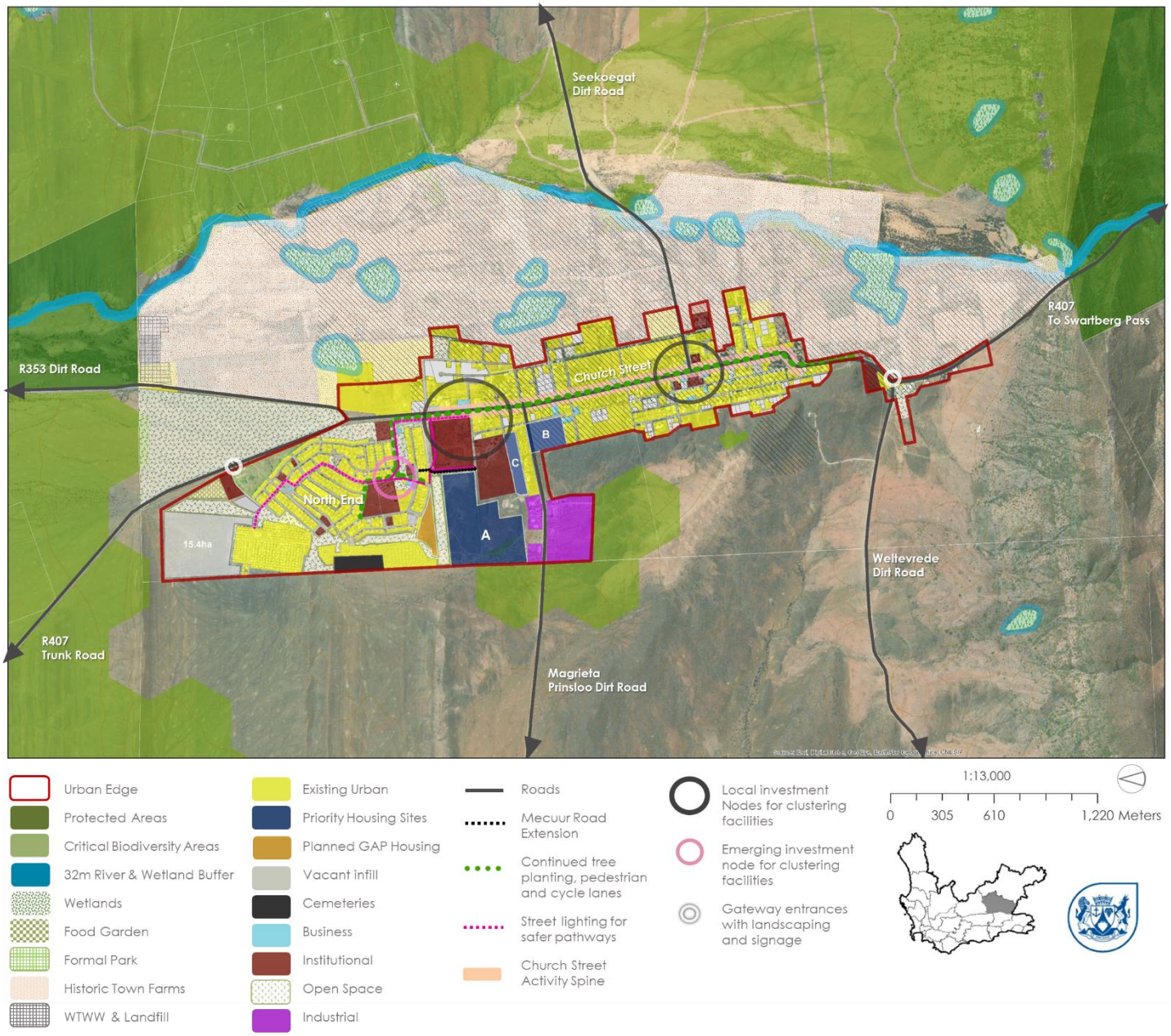


Figure 4.58: Prince Albert Town Areas Priority Areas for Investment Alignment

4.7.1 Spatial Categories to Guide Investment

Figure 4.59 across shows the '**spatial categories**' to guide in investment priority in Prince Albert Town.

New Development Areas:

- Sites A, B and C (Shown in yellow) to promote the spatial transformation of North End with the historic town and accommodate housing demand projections. Housing delivery must align to integration and regeneration zones;
- Integration Precinct

Upgrade Areas:

- North End (shown in red) to focus investment in infrastructure upgrading and public space upgrades.
- Lighting, pedestrian pathways and continued tree planting along Voor Street and Loop Street which links into Church Street.

Consolidation Areas:

- The traditional town centre of Prince Albert. This means that infrastructure renewal and maintenance are the priorities for this area, and limited infill and densification should be allowed without undermining the character and feel of the town

Long Term Development Areas:

- Infill of vacant land in Industrial Development Area to accommodate future demand and contribute to economic growth and employment opportunities.
- Land North of North End (last priority land).

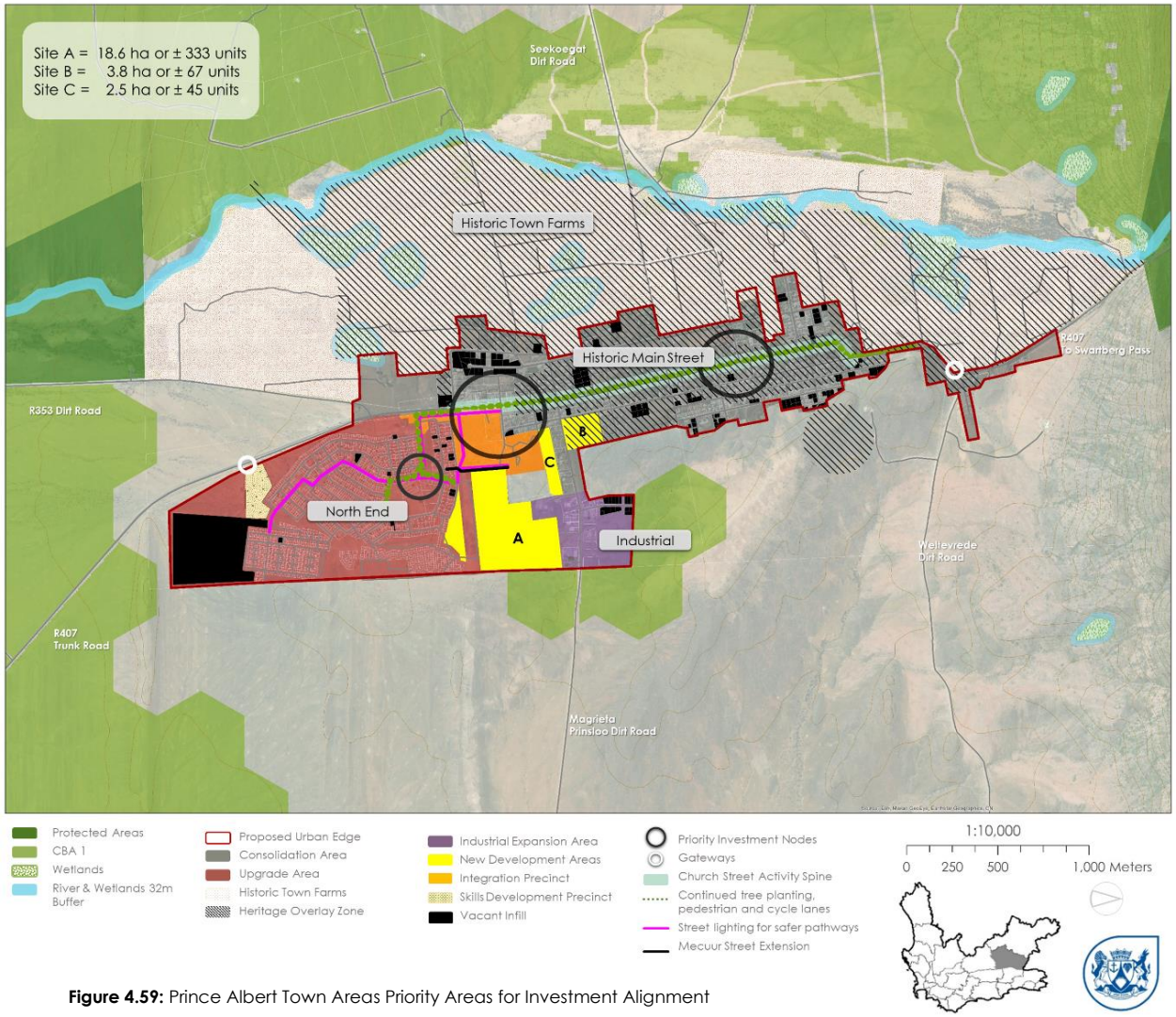


Figure 4.59: Prince Albert Town Areas Priority Areas for Investment Alignment

4.7.2 Catalytic Projects

The Integration Precinct: aims to reconnect the town of Prince Albert and promote spatial transformation as shown through the Reconstruction Framework (See figure 4.60).

The precinct consists of:

1. Extend Thusong Centre to house the council and finance offices
2. Sport and recreational sub-area (Funding through DCAS)
3. The current hospital
4. Housing Sites A, and C to not only accommodate housing demand projections, but to promote the spatial transformation of Prince Albert Town. These sites are well located to social and government facilities as well as job opportunity in the CBD.
5. Public space and safety imporvements (Amphitheatre, lighted walkways, landscaping and streetscape improvements;
6. Extension of Mecuur Street to Hospital.
7. New post office, ATMS, zebra crossing to SPAR

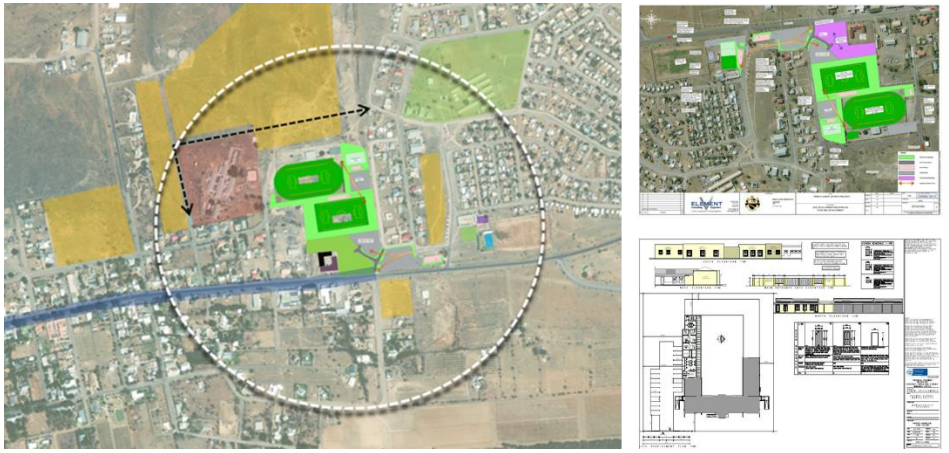


Figure 4.60: Map Showing Concept of Integration Precinct (Housing in Orange, Dotted Black Line Mecuur Street)

Skills Development Precinct: Continued enhancement of existing facilities (See Figure 4.61).

The precinct consists of:

1. The Environmental Education Centre (computer training facilities, Wi-Fi access, community hall, "Smart Garden") is linked up with a semi-formal park.
2. Proposed ECD centre: Local Prince Albert residents, with international financial support (from the Netherlands), approached the municipality for an ideal location for a proposed ECD centre. A possible site has been identified south of and adjacent to the Adult Park
3. POP centre: slightly outside the proposed hub is an existing Path-Out-of-Poverty (POP) centre currently also been used as an ECD centre.
4. Proposed driving school North of the EE centre

Further work can be done to establish a mini Library at the EE centre which can double up as space for AET classes.

Figure 4.61: Map showing Skills Development Precinct

4.8 LEEU GAMKA SPATIAL DEVELOPMENT FRAMEWORK 2020

The 2020 SDF for Leeu Gamka is similarly aligned to the 2014 SDF, which aims to encourage the growth of Bitterwater towards Welgemoed, allow for a degree of infill development, and to promote commercial, retail, light industrial and transport-related development adjacent to the N1 highway. Extensive residential development on both sides of the N1 should be discouraged as this could result in traffic-related dangers (i.e. people crossing the busy N1 highway more so than they already do). Projects emanating from the 2014 SDF specific to Klaarstroom included:

- Landscaping of town entrances (ongoing);
- Tree planting in Gousblom Street and landscaping at the railway station (ongoing); and
- Business and commercial (transport related) activities to be promoted to the west of the N1.

Figure 4.61 shows the Composite Spatial Development Framework for Leeu Gamka. All projects and principles emanating from the 2014 SDF remain the same. The following new points can be made:

- In this SDF, Leeu Gamka (the urban edge boundary) is a consolidation zone meaning infrastructure renewal and maintenance are the priorities for this area, and limited infill and densification should be allowed.
- The 147-unit IRDP project has been accommodated in the urban edge given its status in the project housing pipeline.
- 18ha of future commercial and transport and agri business related business expansion areas adjacent the N1 highway are proposed.
- Local Area Plans that aim to cluster social facilities must be developed for the 3 proposed investment nodes;
- All sporting facilities must be upgraded to include flood lighting, pavilions, shading, access control, fields and courts of netball and tennis
- Conclude formal transfer of Transnet houses to PAM;
- Extension of the High School (Potentially double up with AET, Youth Centre and creche);
- Extension of existing cemetery southward toward Welgemoed;
- Establishment of ablution facilities at cemeteries;
- Establishment of Community Safety Kiosks and lighting at nodes;
- Continued paving of all streets incl. Sidewalks & Speed humps and potential traffic light on N1 to calm traffic;
- Shelter for patients awaiting EMS.

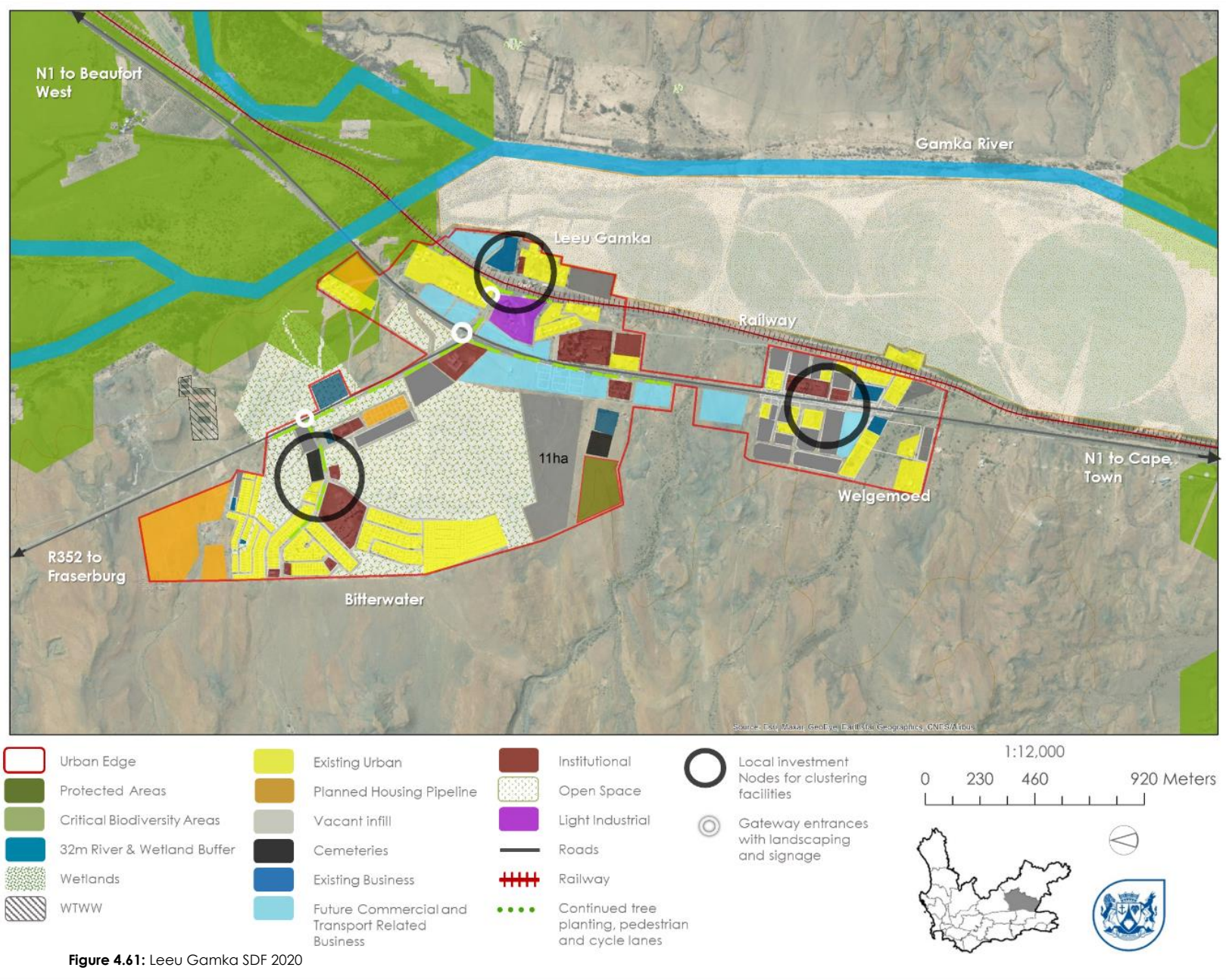


Figure 4.61: Leeu Gamka SDF 2020

4.9 KLAARSTROOM SPATIAL DEVELOPMENT FRAMEWORK 2020

The 2020 SDF for Klaarstroom is similarly aligned to the 2014 Klaarstroom SDF which = maintains that density of new developments should be as high as 25du/ha. The 1:50 year flood line adjacent to the river should be taken note of, and no development within this area allowed. The area north of the N12 which is earmarked for business development should accommodate a service station and transport related services. Projects emanating from the 2014 SDF:

1. Continue enhancing landscaping and signage at entrance points, which portrays the unique sense of place of Klaarstroom.
2. Continued Tree planting and landscaping of the main structuring elements of Klaarstroom.
3. Promote and enhance the tourism route between Klaarstroom and Willowmore, as well as the route to Meiringspoort.
4. New residential development between the historic and newer parts of the town.
5. Infrastructure for new service station planned for the northern side of the N12.

Figure 4.62 shows the 2020 SDF for Klaarstroom. All projects and principles emanating from the 2014 SDF remain the same. The following new points can be made:

- Klaarstroom (the urban edge boundary) is considered a consolidation zone meaning that infrastructure renewal and maintenance are the priorities for this area, and limited infill and densification should be allowed.
- Any additional burial space required should occur south of the existing cemetery.
- Settlement and mountain views must not be obstructed by any type of development
- Tree planting along the N12 to reduce visual impact of the sportsfield wall and to reduce impact of strong winds.
- Establishment of ablution facilities in main street/ Establish 40 km speed limit main road Klaarstroom
- Lighting along main pedestrian routes

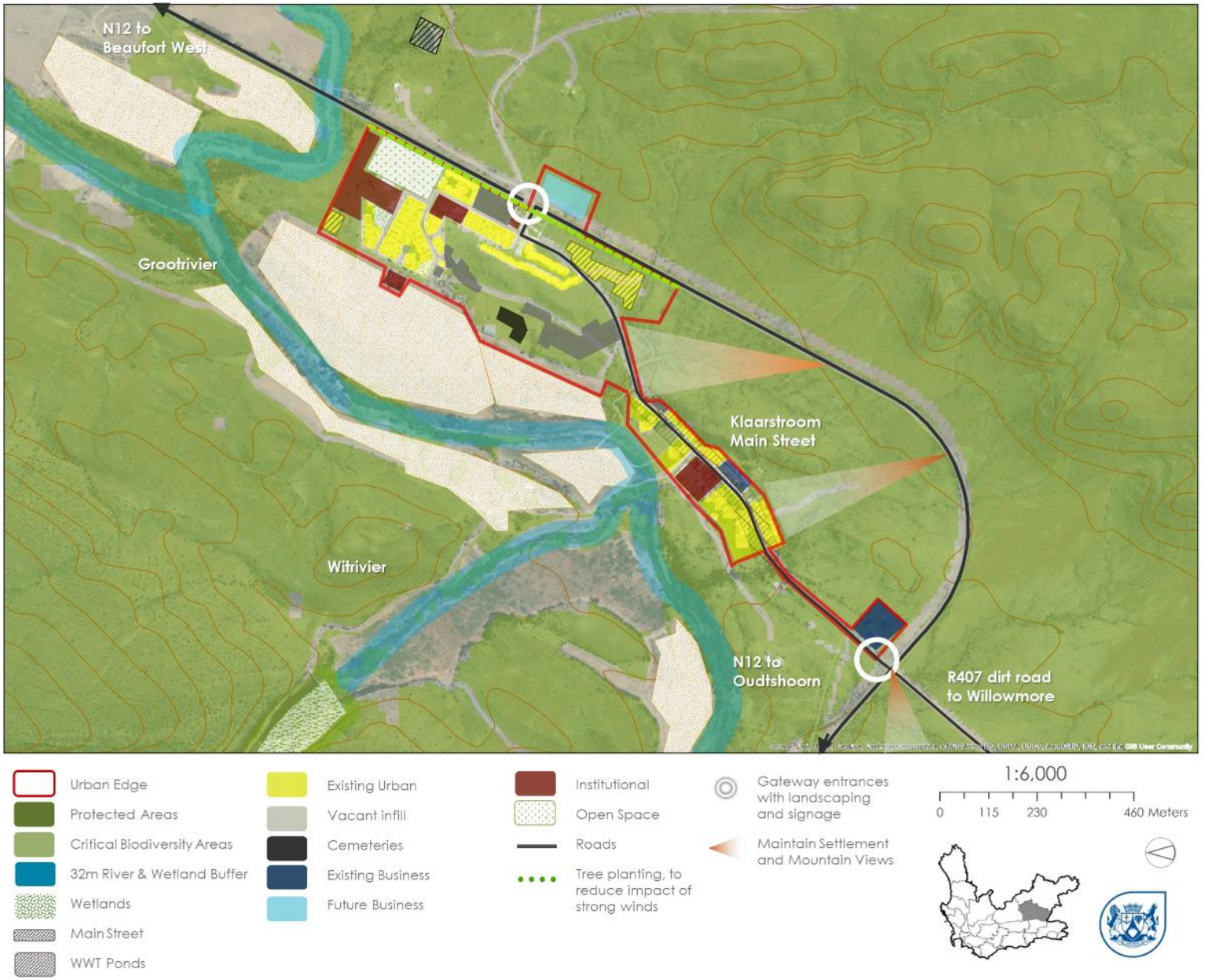


Figure 4.62: Klaarstroom SDF 2020

4.10 PRINCE ALBERT ROAD SPATIAL DEVELOPMENT FRAMEWORK

Figure 4.22 shows the Prince Albert Road 2014 SDF synthesis map while Figure 4.23 shows the 2014 SDF, which for the 2020 SDF, will remain unchanged from 2014.

Although future residential development is not encouraged, if required, 0.8ha of land is available. Transport related commercial activities should be accommodated adjacent the N1 (See red line in Figure 4.48) while local business and commercial activities should be accommodated at the identified lower order neighbourhood nodes.

Projects emanating from the 2014 SDF:

1. Develop Anglo Boer War Museum in the area earmarked for tourism development (to be developed)
2. Continued landscaping and signage at both gateways on the N1 (ongoing)
3. Create a focal entrance point at the railway station though aesthetic upgrading which includes architecture and landscaping (ongoing)
4. Signage and landscaping at the gateway to Prince Albert, which will encourage the passing traffic to visit the town of Prince Albert. This will enable the municipality to capitalize on the economic opportunity of the national road that crosses it (ongoing).

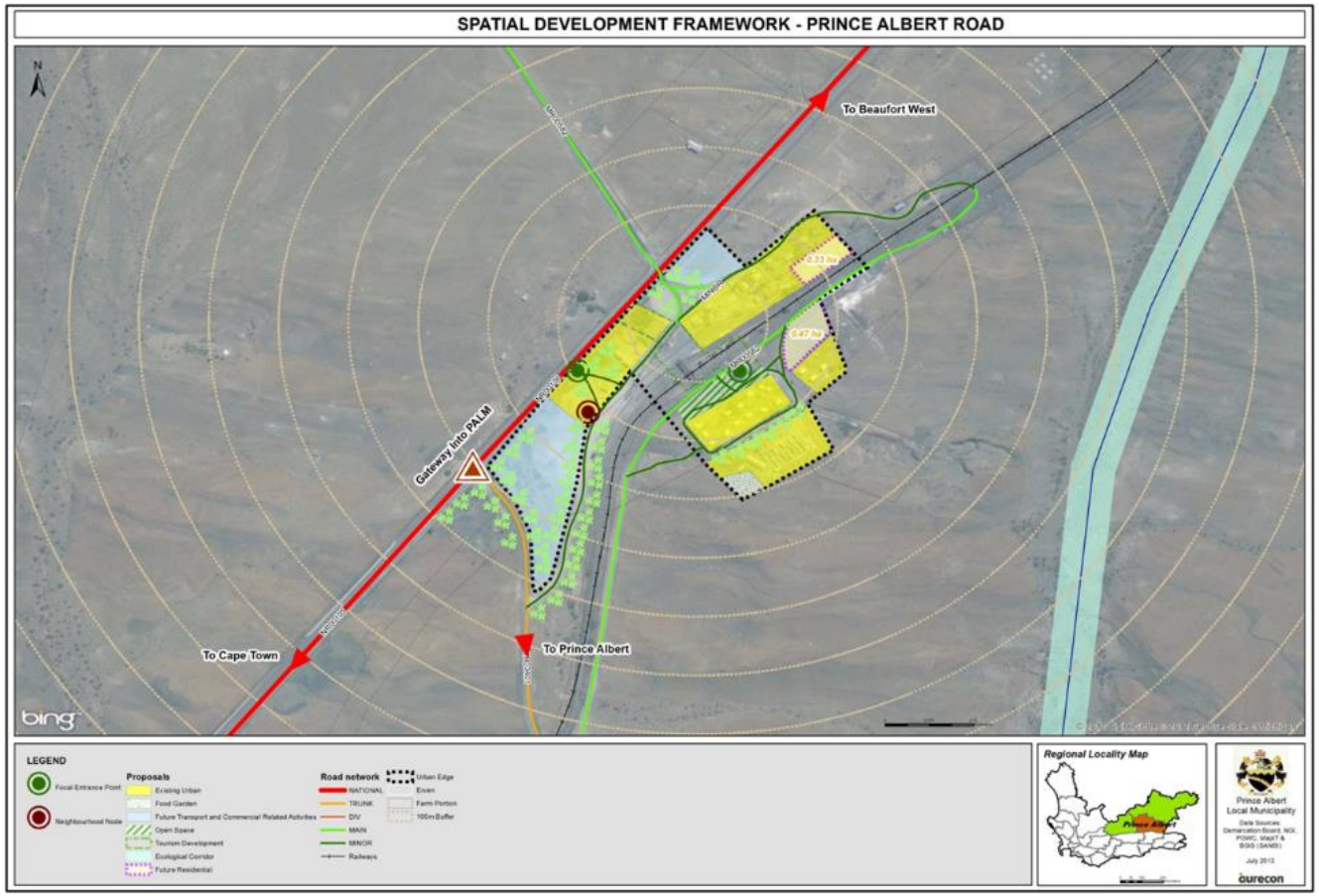


Figure 4.63: Prince Albert SDF 2014 to remain the same

4.11 PRINCE ALBERT MUNICIPALITY COMPSOSITE SPATIAL DEVELOPMENT FRAMEWORK 2020

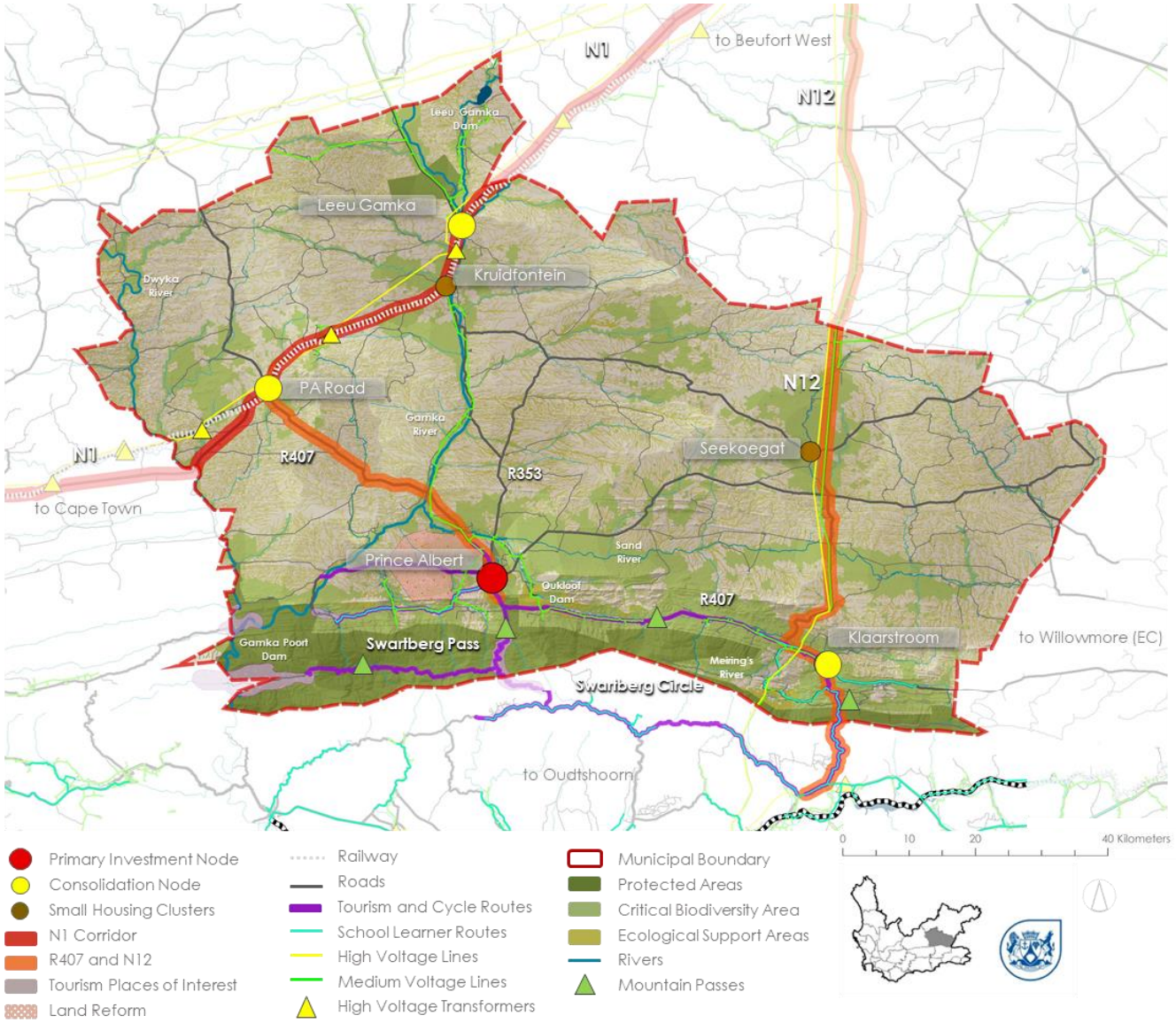


Figure 4.63: Prince Albert Municipality SDF 2020

4.12 PRINCE ALBERT CHAPTER 4 MSDF SPECIFIC PROJECTS

While the MSDF acts mainly as a guide to where investment from sector plans could be optimally located in relation to population forecasts and land and housing requirements, there are also several specific projects proposals. Table 5.4 below lists the municipal and district wide actions or projects emanating out of the policies set out in Chapter 4. The municipality will have to undergo a priority-setting exercise, and re-visit this list on an annual basis and as part of the IDP review process, to determine if new priorities emerge and if the priorities highlighted below remain priorities, or have been implemented

Table 5.4: Sector Plan Highlights and MSDF Input

MUNICIPAL SPECIFIC ACTION or PROJECT	BUDGET	TIME FRAME	ROLE-PLAYERS
Local Area plans for all local investment Nodes (3 in Prince Albert Town and 3 in Leeu Gamka. The aim should be to rejuvenate and invest in the clustering of needed services in primary investment nodes and historic cores of each town Prince Albert and Klaarstroom. Continue to make these appealing to tourists, business and attract investment into town centres by developing Town Improvement Plans.	Budget to be determined per town but basic cleansing and municipal services to be covered by operational costs of each local municipality Possibility for local area plans to be in-house by DEA&DP: RSEP/VPUU	2020 – 2025 and ongoing	Prince Albert Local Municipality Business chambers and local civic interest groups DEA&DP: RSEP/VPUU
Prince Albert Town heritage overlay zone (as shown in the black diagonal lines in Figure 4.13 in Chapter 4).	Cost of employment (in relation to land use management decision making). To be adopted as part of the development of a municipal zoning scheme bylaw	2020-2025	Prince Albert Local Municipality\ SAHRA
Prince Albert Town Integration Precinct consisting of: • Extend Thusong Centre to house the council and finance offices • Sport and recreational sub-area (Funding through DCAS) • Enhanced public spaces (Amphitheatre and safer streetscape improvements; • New Development Areas (GAP and BNG Sites A, B and C) • Extension of Mecuur Street to Hospital.	R 25 million + Business Plan and funding for extension of Thusong centre has been developed for the precinct by RSEP/VPUU	2020 – 2025 and ongoing	Prince Albert Local Municipality Business chambers and local civic interest groups DEA&DP: RSEP/VPUU DCAS CKDM Department of Human Settlements

MUNICIPAL SPECIFIC ACTION or PROJECT	BUDGET	TIME FRAME	ROLE-PLAYERS
• New post office, ATMS, zebra crossing to SPAR • Driving School			
Continued enhancement of existing facilities in the Skills Development Precinct: Current EE centre with additional area for Creche and Mini Library	Budget to be determined but will currently fall under operations and maintenance	2020 – 2025 and ongoing	Prince Albert Local Municipality DCAS WCG
Continued tree planting and landscaping at town entrance and the further roll out of well-lit pedestrian and cycle lanes (between North End and South End, between Klaarstroom West and East and Between Leeu Gamka, Welgemoed and Bitterwater)	Budget to be determined but includes the ITP NMT phased roll out plan	2020 – 2025 and ongoing	CKDM Prince Albert Local Municipality
Housing development of key priority sites shown in	As per HSDG Housing allocation. Rough cost to develop priority sites in Prince Albert Town is:	2020 – 2030 and ongoing	CKDM Prince Albert Local Municipality Department of Human Settlements
DISTRICT WIDE ACTION or PROJECT	**BUDGET**	**TIME FRAME**	**ROLE-PLAYERS**
Ensure that Spatial Planning Categories, based on the latest Western Cape Biodiversity Spatial Planning information, are applied in land use planning decision making within the Central Karoo as per Policy A1. This may require local SDFs to be amended to include new Critical Biodiversity Area data.	Cost of employment (in relation to land use management decision making)	Immediate and ongoing 2020 -2024	Central Karoo District municipality Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality Support from Department of Agriculture, Land Reform and Rural Development and Department of Environmental Affairs and Development Planning
Ensure that all efforts towards building water resilience in the Central Karoo, and responding to the persistent drought conditions, consider proposals of Policy A2 around building water resilience in the Karoo.	Look beyond the public sector, that is, at business and the broader society to implement the suggested initiatives listed under Policy B4	Immediate and ongoing	Central Karoo District Municipality Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality Provincial Department of Transport and Public Works National Department of Water and Sanitation

MUNICIPAL SPECIFIC ACTION or PROJECT	BUDGET	TIME FRAME	ROLE-PLAYERS
Establish a Central Karoo Shared Service Centre for municipal planning and possibly a GIS function, and potentially other functions, within the Central Karoo.	R375 000 establishment cost. R1.5million annual running cost (based on the Business Plan for the implementation of Shared Services in the Central Karoo)	2020 – 2025	Central Karoo District municipality Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality
Ensure application of Central Karoo and Prince Albert SDF composite map including associated Spatial Planning Categories, in large scale infrastructure or development projects in the Karoo (such as land use approvals for shale gas extraction).	Cost of employment	Immediate and ongoing	Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality
Ensure the District Municipality and all local municipalities develop and implement asset management and infrastructure maintenance policies and plans as per guideline C3 to ensure all infrastructure and assets are well maintained.	To be determined by functionaries, but to be done as part of engineering master plan development process		Central Karoo District Municipality Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality
For take up in the Integrated Transport Plan: Gather Gender disaggregated data from surveys on traveler experiences while cycling, walking and moving around in the District, to give insight about the realities and needs of people navigating between towns. Gender disaggregated data could analyses why men and women make trips to particular places at a particular time, which will provide a better understanding about functional relationships between settlements and larger towns and assist to respond to the transport needs of the people in a gender responsive manner.	As part of ITP process & budget	2020-2025	Department of Transport and Public Works Central Karoo District Municipality Beaufort West Local Municipality Laingsburg Local Municipality Prince Albert Local Municipality
Develop an urban design guideline for the Central Karoo that assists local municipalities in honouring, enhancing and building upon the unique architectural	R1million	2020 - 2025	Department of Environmental Affairs and Development Planning Central Karoo District Municipality Beaufort West Local Municipality

MUNICIPAL SPECIFIC ACTION or PROJECT	BUDGET	TIME FRAME	ROLE-PLAYERS
charm and tradition of the Karoo through its building plan and development management functions.			Laingsburg Local Municipality Prince Albert Local Municipality