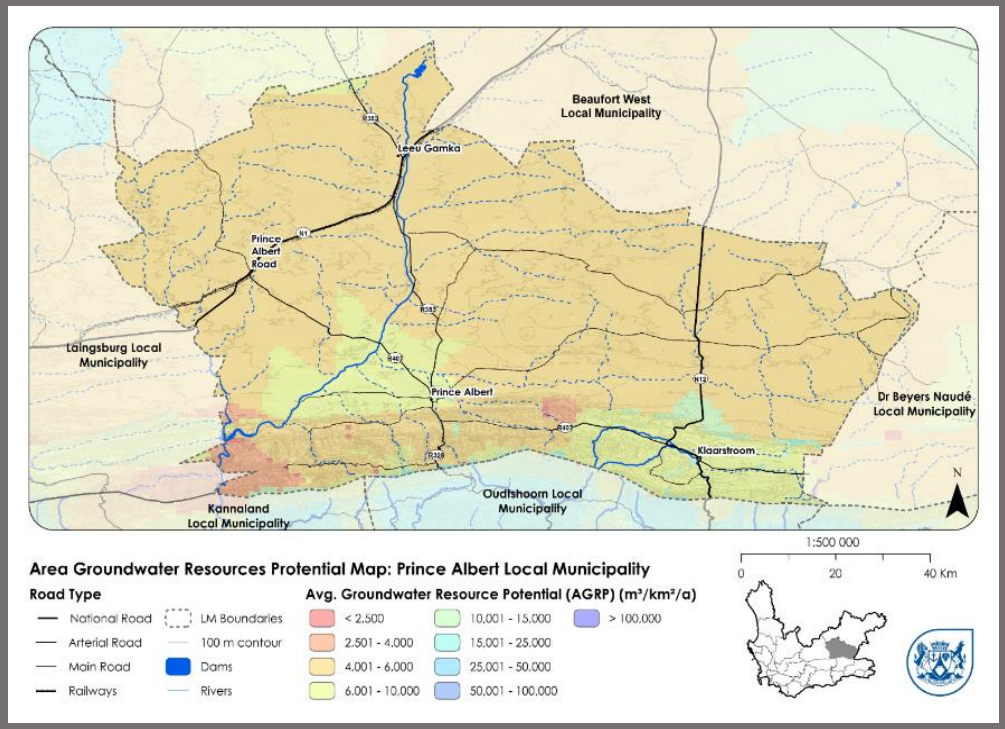
PRINCE ALBERT MUNICIPALITY: SPATIAL DEVELOPMENT FRAMEWORK

STATUS QUO ANALYSIS REPORT 2020



EXECUTIVE SUMMARY

This document presents the Prince Albert Municipality Status Quo Analysis which took place between 2018 and 2020 early. It was drafted by DEA&DP Spatial Planning resources. Given the length and time taken in this process, some of the information may already be outdated upon reading this document. However, information was updated in the Municipal Spatial Development Framework Final Draft 2021.

In summary, Prince Albert Municipality is still suffering from drought on top of the COVID 19 induced travel restrictions, which have severely impacted the tourism economy. The Municipality recognize that the constrained fiscal environment is expected to have a notable impact on individual households, with economic pressures intensifying and job losses increasing it is understood that poor households will find it more difficult to afford basic service. The Municipality will have to balance their relief programmes with improved debt collection.

Covid-19 brought several emerging risks, including increased pressure on cash flow due to a decrease in debt collection. The Municipality embarked on a debt relief programme, but the effect is still very limited, and the Municipality will carefully have to manage their expenditure going forward.

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1. INTRODUCTION

The purpose of this chapter is to provide an overview of the current state of development of the Prince Albert municipality, using the latest data and intelligence available, in order to derive the most pressing key spatial issues and opportunities that exist within the municipality.

2. BIO-PHYSICAL AND NATURAL ENVIRONMENT ASSESSMENT

2.1 NATURAL LANDSCAPE

The topography within the municipal area mainly consists of gently undulating plains (See Figure 2.1). There are three types of geological formations occurring within the Prince Albert Municipal area. The three formations are the Adelaide, Bokkeveld and Witteberg which run from north to south as illustrated in Figure 2.2. The settlements of the region, except for Klaarstroom, are located on the flat Adelaide formation. Klaarstroom, however is located on the Bokkeveld group, which creates the geological conditions for the beautiful Meiringspoort pass through the Swartberg Mountain range. In terms of mineral resources, gold, plastic clay, gypsum, phosphorus and uranium are found within the municipal area (See Figure 1.3.). It is noted however that these minerals are not currently being mined. A single opencast gravel mine is currently operating approximately 8 km to the south of the town of Prince Albert. The sustainable and environmentally friendly mining of these untapped minerals should be considered. It is recommended that the municipality conduct a feasibility analysis to determine the impact of mining on the natural resources and other sectors in the Municipality.

Shale gas exploration within the Central Karoo basin has become an increasingly important consideration for Government. Several companies intend to explore shale gas within the Karoo region, and this has become a contentious issue among environmentalists, farmers, local residents and various government and non-government institutions.

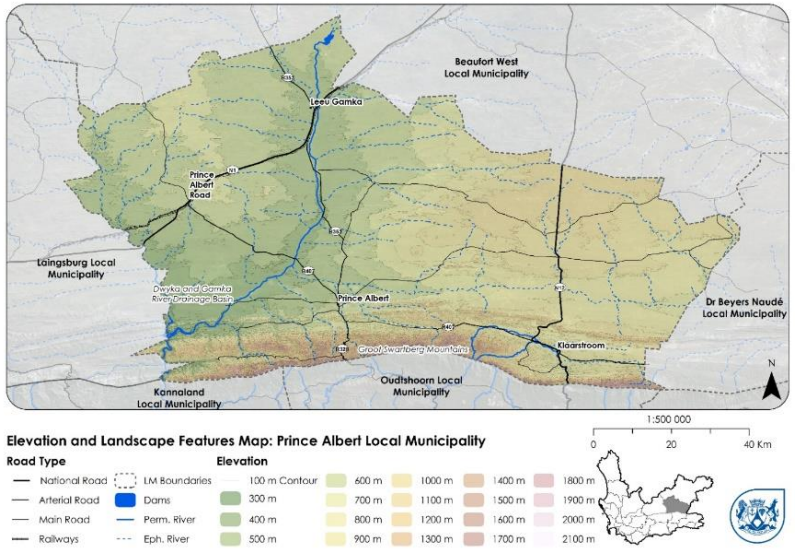


Figure 2.1: Elevation and Landscape Features Map of PAM

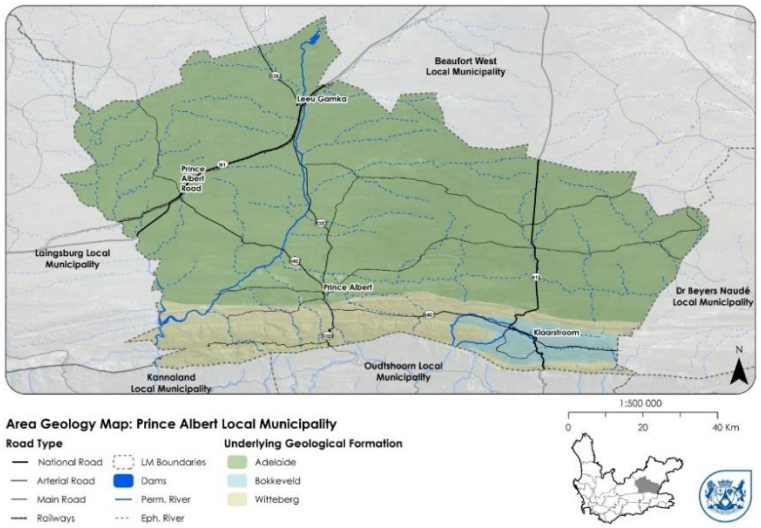


Figure 2.2: Area Geology Map of PAM

Major challenges associated with fracking or hydrologic fracturing, which is only one component of the entire shale gas exploration and exploitation process:

- Use of scarce water;
- contaminated ground water;
- increased traffic volumes;
- increased housing demand;
- deterioration of transport infrastructure.

The proposed shale gas exploration area within the Prince Albert Municipal area is depicted in 'crosshatching' in the northern portion of the municipality (See Figure 2.3). Should the proposed shale gas exploration through fracking acquire approval from the relevant competent authorities, an important consideration for the municipality will be to protect the ground water resource and ensure that areas of critical biodiversity value are protected from such activity.

Figure 2.4 shows that most of the **soil clay content and depths** within the Prince Albert Municipality are less than 450mm in depth and the rest of the municipal area has soil depths ranging from 450mm to 750mm. Soil depths greater than 750mm generally occur along river tributaries. This is where the most fertile soils are found within the municipal area, hence the land in most part is used for agricultural purposes.

The **implications** are that the areas with greater soil depths are more arable and should be protected from inappropriate development. It should also be considered in all instances that the Prince Albert municipal area is vulnerable to wind erosion due to the climatic condition in the region. Inappropriate farming practices could also perpetuate the rates of erosion in the area. The municipality has a clay content of less than 35% which has a low ability to retain and supply nutrients.

Landscape typologies occurring in the Central Karoo District and the Prince Albert municipal area are the escarpment/plateau, foothills/undulating plains and mountain ranges. It is also characterised by a flat upland plateau where various agricultural activities occur. Cultivated agricultural land and fertile soils mainly occur along rivers.

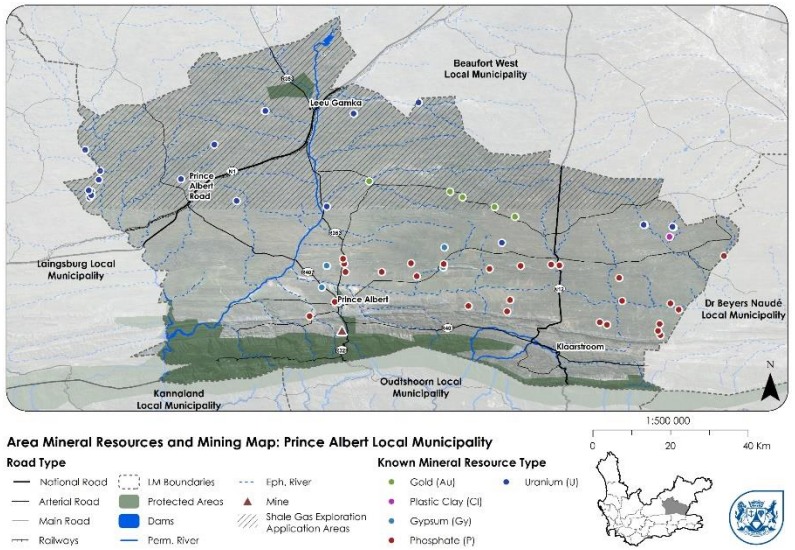


Figure 2.3: Area Mineral Resources Map of PAM

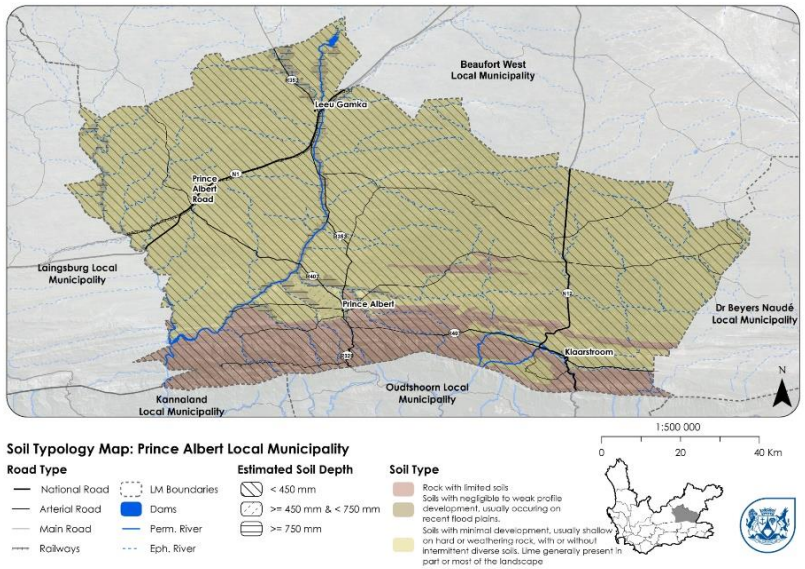


Figure 2.4: Soil Typology Map of PAM

Regarding scenic assets, the Prince Albert Municipal area consists of one primary scenic route (R407), three secondary scenic routes (R353, R328 and the N12) and the Swartberg Mountain Pass (PSDF, 2014).

A few scenic landscapes of high significance are under threat and require strategies to ensure their long-term protection. These include:

- Rural landscapes of scenic and cultural significance that are situated in close proximity to the town of Prince Albert are under pressure for development (such as town farms);
- Landscapes under pressure for large scale infrastructure development such as the proposed shale gas extraction in the Northern parts of the Prince Albert municipal area;
- Historical mountain passes are vulnerable to falling into disrepair, or alternatively inappropriate repairs and upgrading (such as Swartberg Pass).

The implication of the landscape character and scenic assets for the Prince Albert Municipality is that these assets are significant and should be protected from inappropriate development and land use change. Retaining the essential character and intactness of wilderness in the Swartberg Mountain range, rural and urban areas in the face of fragmentation through unstructured urbanisation and commercial agriculture must be achieved.

The Heritage and Scenic Resources: Inventory and Policy Framework for the Western Cape contains guidelines on Natural Landscapes and for Rural Landscapes of Significance. The Prince Albert MSDF proposals should seek to align with these guidelines. Specifically, the cross-sections shown in Figure 2.6 illustrate the various landscape features, some of which are worthy of protection (such as the Swartberg mountain range and passes), as well as the landscape typology – being 'Die Vlakte' – on which most agricultural and settlement activities take place.

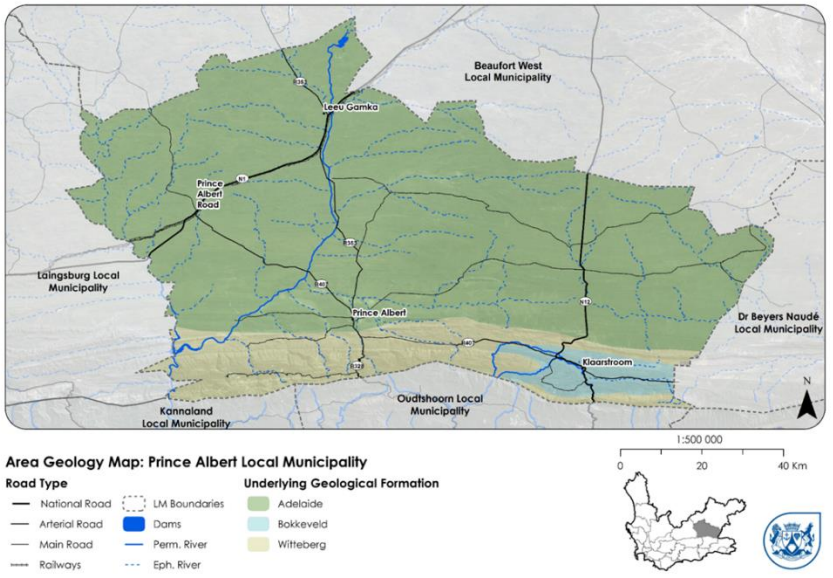


Figure 2.5: Geology Map of PAM

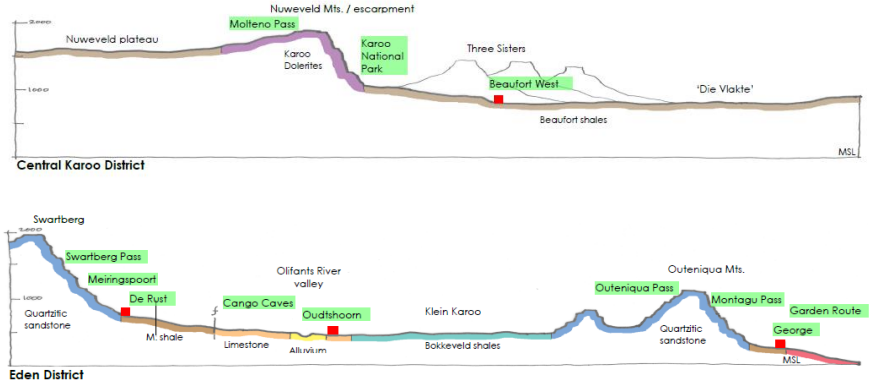


Figure 2.6: Landscape Typology Cross section of Central Karoo and Eden Districts

2.2 CLIMATE AND CLIMATE CHANGE

Data in this section is derived from the South African Weather Services (SAWS). The municipal area is a semi-arid region. Precipitation is highly variable, ranging from between 0mm and 100mm of rainfall per annum in the flatter and low-lying areas, and up to 600mm in the Swartberg mountains which feed the river systems (such as the Dorps River) of the municipality. Prince Albert Town receives an average of 204mm of rainfall per year, with most occurring during mid to late summer.. By 2035, the projections are suggesting a 5% decline, but the uncertainty is +/- 10%. Figure 2.7 illustrates the annual precipitation rates over the different parts of the Prince Albert municipal area – and the spatially variable rainfall pattern.

PAM receives the lowest rainfall (10mm) in December and the highest (30mm) in March. Average midday maximum temperatures range from 17.2 C in July to 31.2 C in January. The region is the coldest in July (3.3 C) on average during the night. January is the warmest month and the coldest months are June and July.

Climate-related impacts such as drought, flooding, snowfall, wind, fires and extreme heat are not new in the Central Karoo District but are likely to be exacerbated, as well as increase in frequency and severity.

Prince Albert declared a drought in all of its areas in October 2017. This drought declaration is still applicable at present (2021), putting agriculture and available water resources as well as the general environment under pressure.

Drought mitigation initiatives include: Drilling of boreholes, increasing water storage capacities, continuous monitoring of water demand and leak detection and repair programmes to protect the already scarce water resources. Due to the additional expense of installing water and energy saving appliances and connections, it is recommended that the municipality explore co-funding alternatives to incentivise developers to mainstream the installations and not simply pass the additional cost to the end user (consumer). The municipality is also considering the development of a building by-law that will enforce water and energy saving appliances and connections. It is noted that rural communities are most affected by and vulnerable to the effects of climate change.

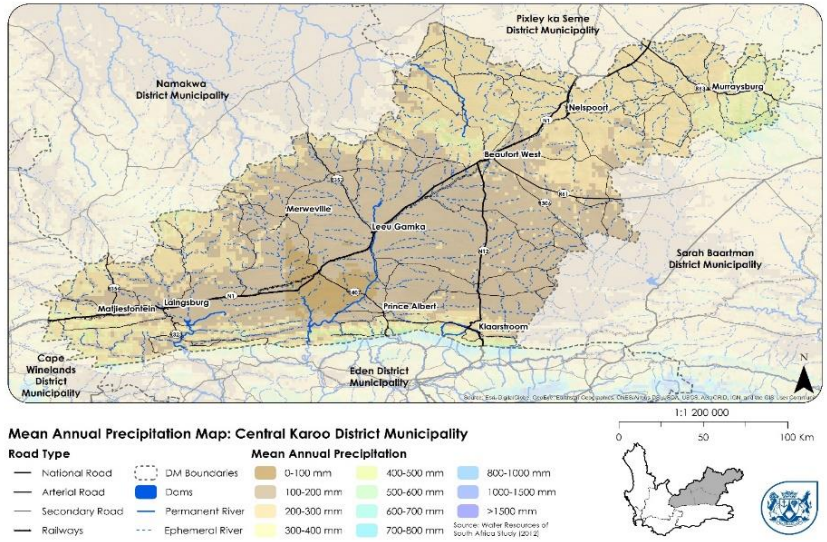


Figure 2.7: Annual Precipitation of CKDM

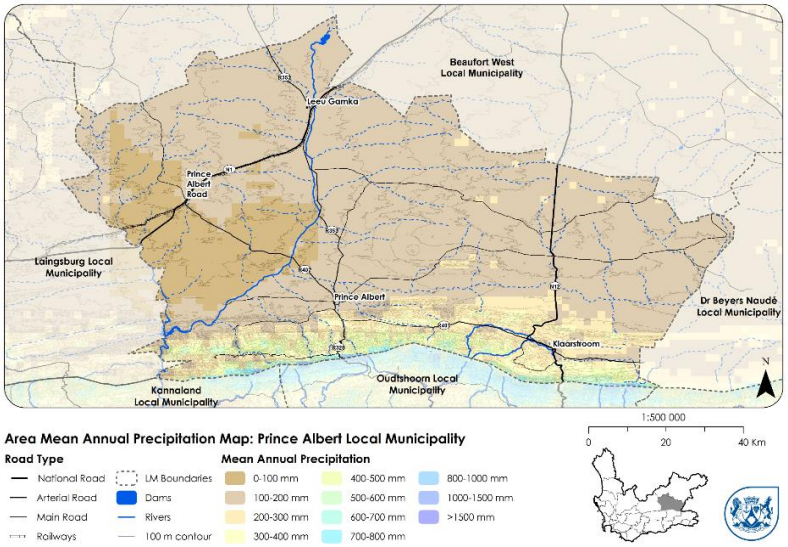


Figure 2.8: Annual Precipitation of PAM

2.3 WATER RESOURCE (HYDROLOGY)

As a result of the semi-arid nature of the region and increased water demand linked to economic growth, urbanisation and climate change, the water resources in the area are under great threat. Freshwater ecosystems consist of rivers, watercourses and wetlands, and form an important basis for ecological infrastructure.

The primary source of water for urban use in Prince Albert is ground water, whilst the Dorps River (a surface water source) provides approximately 10.4% of the municipality's water needs. The main catchment area for this river is the Swartberg Mountain Range.

There are various other surface water sources within the municipality (such as the Leeu Gamka Dam, Oukloof Dam, Gamkapoort Dam, Gamka River and various river tributaries), which serve the surrounding agricultural activities in the area. Figures 2.9 and 2.10 illustrate the availability of ground water resources, the distribution of rivers, tributaries and dams within the Prince Albert Municipal area.

According to SANBI's 2011 National Freshwater Ecosystem Priority Areas project, the vast majority of river conditions within the Municipal area were classified as being in a natural or largely natural state with few modifications. The Gamka River and its tributaries were classified as moderately modified. The Meirings River was classified as largely modified and the condition of three (3) river tributaries were classified as not being intact.

It is important to passion this SDF within the context on the NSDF 2050 which classifies the Karoo area as an Arid Innovation Region which will require National, Provincial and even International/Private Sector resources to be tapped into to come up with innovative water security and Smart Agri solutions/funding/investment.

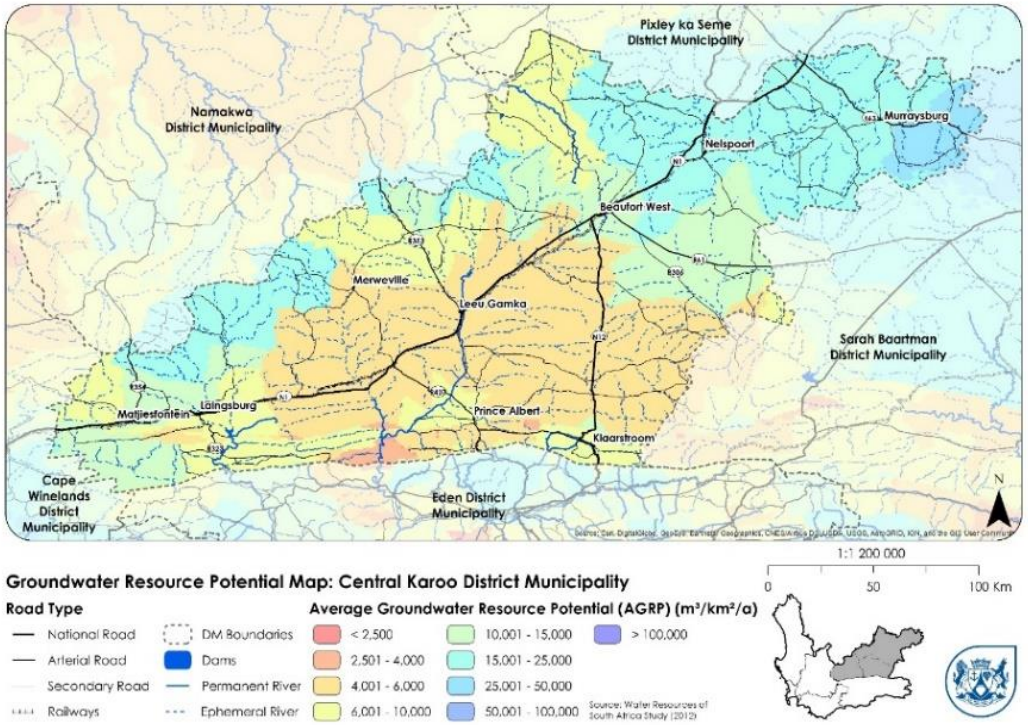


Figure 2.9: Groundwater Resources Potential Map for CKDM

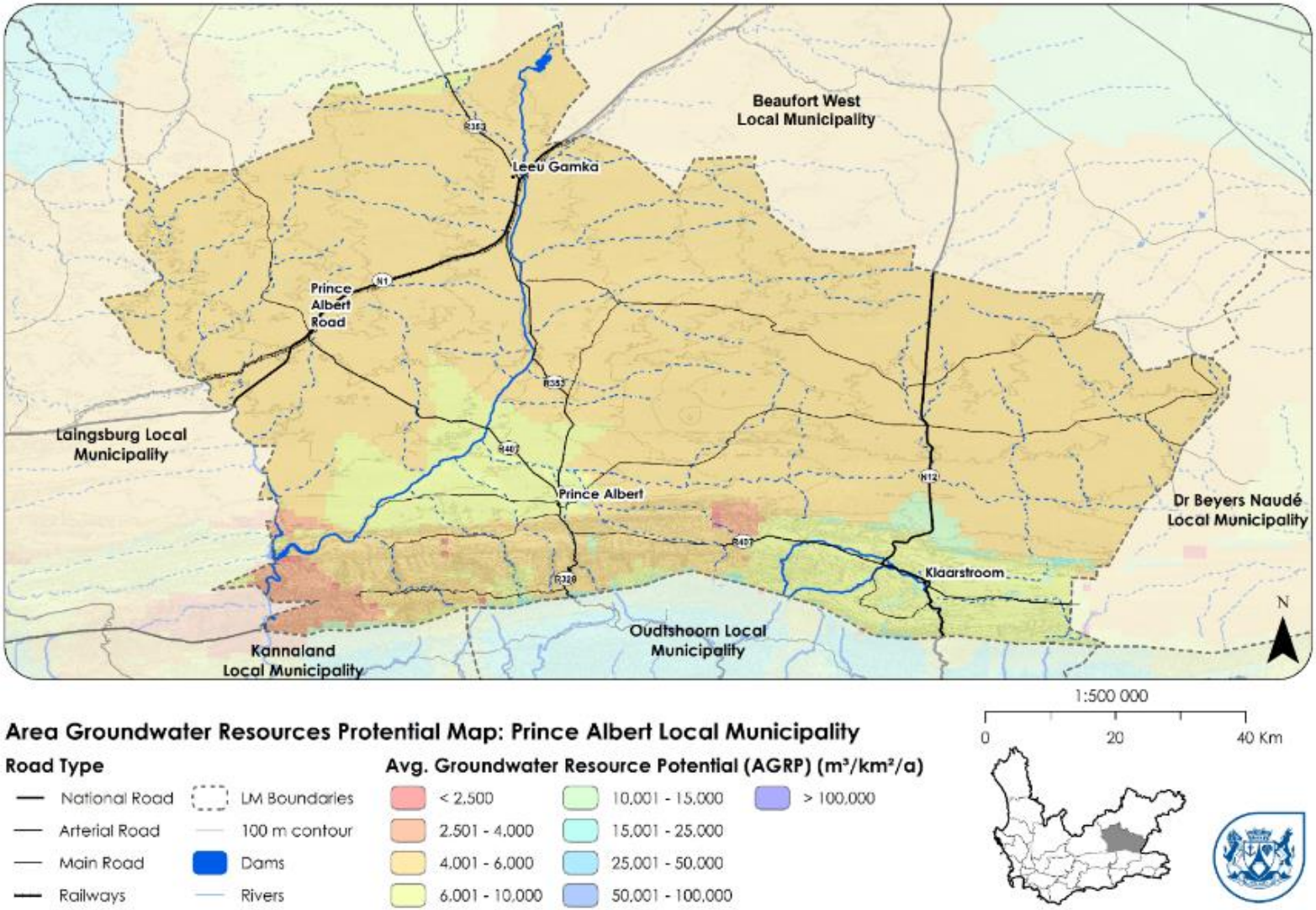


Figure 2.10: Groundwater Resources Potential Map for PAM

There are various **biomes** present in the municipality. These include the Albany Thicket, Azonal Vegetation, Fynbos, Nama-Karoo and Succulent Karoo. As illustrated in Figure 2.11, the Nama-Karoo Biome covers the largest part of the Prince Albert Municipal area. This biome is grassy dwarf shrubland which is highly erodible. The Swartberg Mountain is covered with the Fynbos biome on its northern side.

The main **vegetation type** in the area is the Gamka Karoo, followed by the Succulent Karoo. In the pristine areas of the Gamka Karoo, dense stands of spekboom occur. Shrubs are also abundant, stem and leaf-succulents are often prominent, and the grass component is poorly developed, with *Cenchrus ciliaris, Ehrharta calyncina, Eragrostis plana* and *Sparobolus fimbriatus* occasionally abundant after good rains. The Swartberg mountain range consists of Swartberg Sandstone Fynbos and Shale Fynbos. Traces of Koedoesberge-Moordenaars Karoo and Gamka Thicket vegetation types are also found.

During 2017, CapeNature as the custodian of Biodiversity in the Western Cape, together will other relevant stakeholders, have developed the **Western Cape Biodiversity Spatial Plan (WCBP)**. Included in the WCBP is the Biodiversity Spatial Plan Map of biodiversity priority areas, accompanied by contextual information and land use guidelines that make the most recent **biodiversity information available for use in land use and development planning**, environmental assessment, and natural resource management. The plan replaces all previously published biodiversity informants to strategic forward planning and as such the Prince Albert SDF biodiversity section is updated in accordance with the WCBSP.

Prince Albert has two **Protected Areas**, namely the Swartberg Nature Reserve and the Henry Kruger Private Nature Reserve to the North of Leeu Gamka. Figure 2.12 illustrates the Protected Areas, Critical Biodiversity Areas (CBAs), Ecological Support Areas (ESPs) and Other Natural Areas (ONAs) found within the municipality.

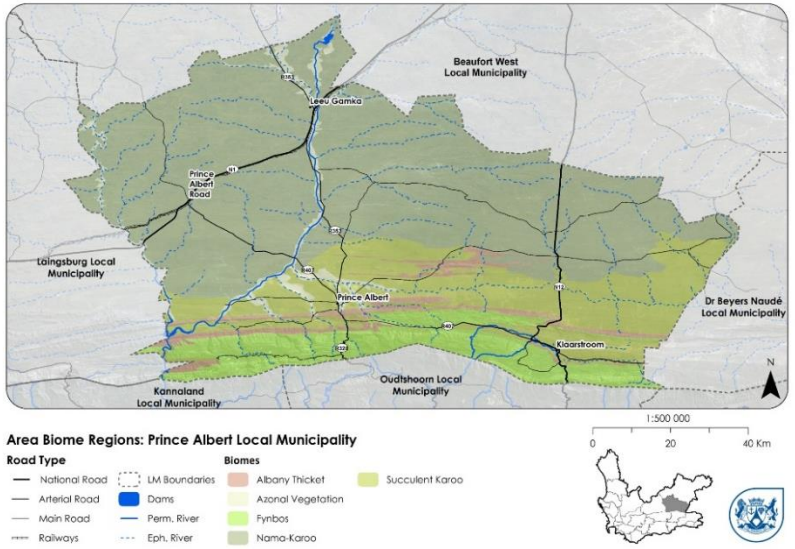


Figure 2.11: Area Biomes for PAM

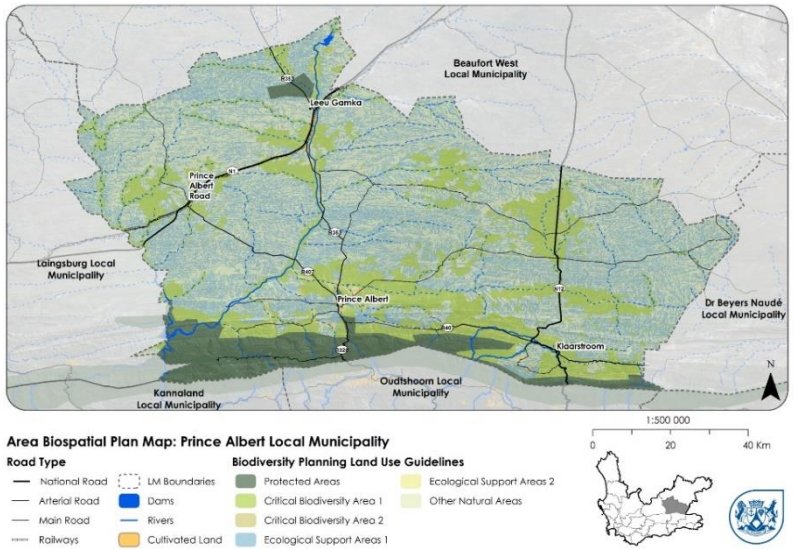


Figure 2.12: Area Bio spatial Plan for PAM

2.4 AGRICULTURAL RESOURCES

Agricultural activity in the area includes a variety of vegetables (largely for seed production), deciduous fruit, vineyards, olives, lucerne and livestock. Livestock farmed in the region includes ostriches, goats and sheep, whilst the area also boasts many well-established game farms. Agricultural properties (Town Farms) adjacent to the town of Prince Albert are currently under pressure from urban development. Many of these farms have significant heritage and food security value and are also a tourist attraction in the area (See Figure 2.13).

The Central Karoo District Rural Development Plan, 2015 (CKRDP) developed by the National Department of Rural Development and Land Reform, has identified the following potential agricultural projects, for which feasibility studies and water source investigations are largely needed:

- Upgrading of the existing Abattoir, existing dairy, leather tannery (Leeu Gamka) and food gardens in Klaarstroom and North End, Prince Albert;
- Extension of the Weavery;
- Development of a Fruit Drying Facility with communal plantations;
- Pomegranate project in Leeu-Gamka;
- Vegetable Enhancing Facilities in Prince Albert;
- Development of a Seeding Production Facility in Prince Albert;
- Expansion of the existing Onion Seed and Olive Production Facility in Prince Albert;
- Development of a new Dry Fruit Facility or Project in Leeu-Gamka; and
- Development of an Agri-Processing Facility in Prince Albert.

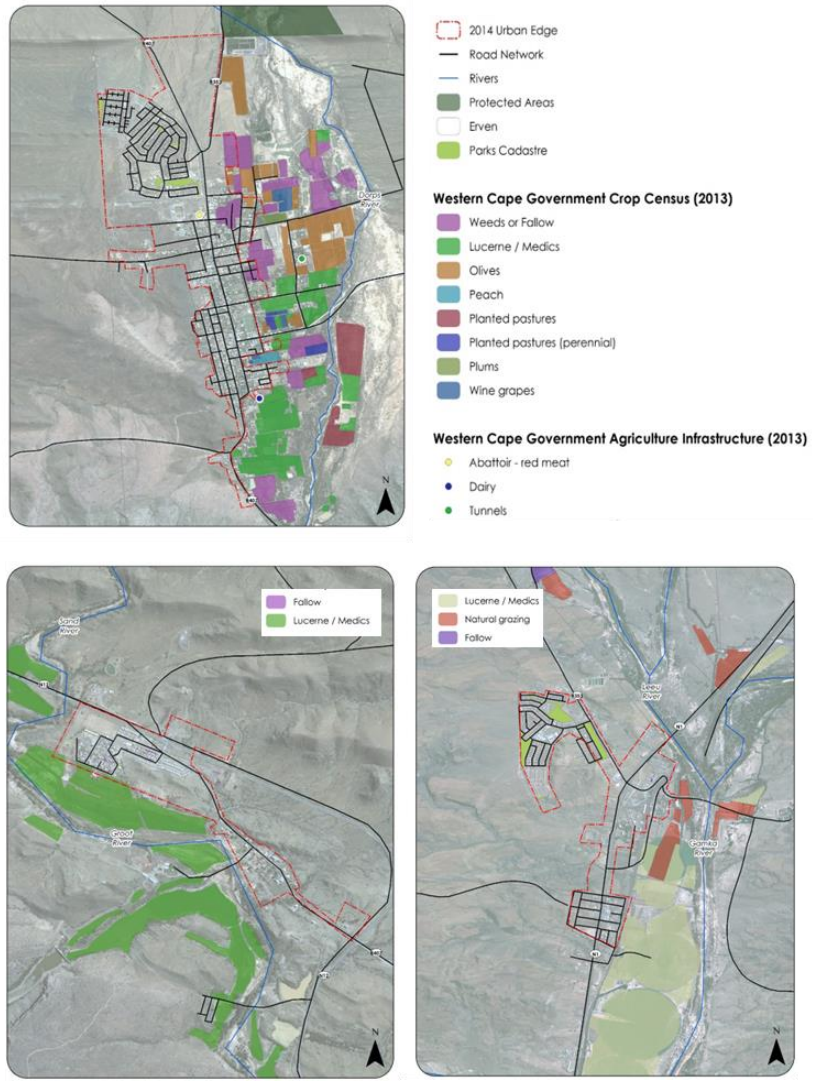


Figure 2.13: Agricultural types in PAM Towns

3. REGIONAL AND LOCAL SOCIO-ECONOMIC CONTEXT

3.1 POPULATION AND HOUSEHOLD TRENDS

In 2019, the CKDM was estimated to have a population of **73 218** with **19 905** households, with prince Albert Municipal area consists of **14 069** people and **4183** households (**19.2%** of **18.6%** respectively of the CKDM). As shown in Figure 3.2 the total population of Prince Albert Municipality is expected to add an additional **617** people between 2019 and 2024. The population growth rate of 0.67% and a household growth rate of 1.7% per annum on average is used in the MERO, 2019 report.

As shown in Figure 3.3, Prince Albert Town (made up of Prince Albert and North End) has the largest population concentration, followed by Leeu Gamka (made up of Leeu Gamka and Bittewater). Figure 3.1 shows the 2011 Census number of people per hectare (colours) and annual average household income (dots) per enumeration area in Prince Albert Town. The functionality and well-being of the non-urban population (**3 299** people) will have a direct impact on the pressure felt by urban areas (**10 889** people), particularly North End and Bittewater.

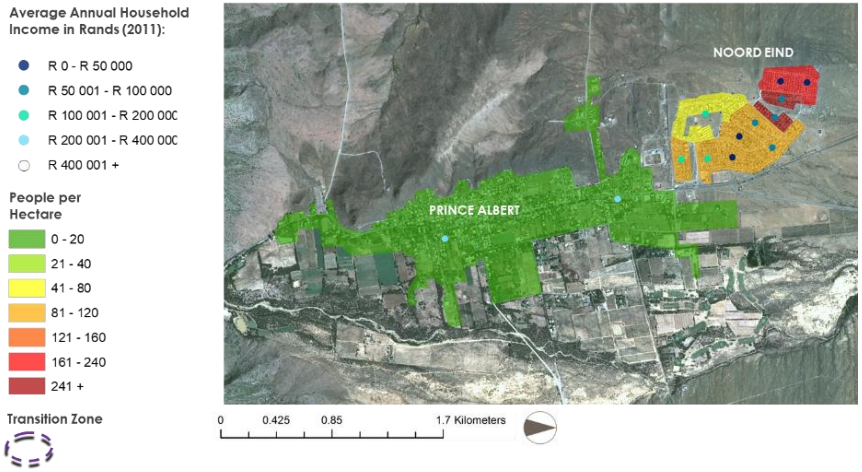
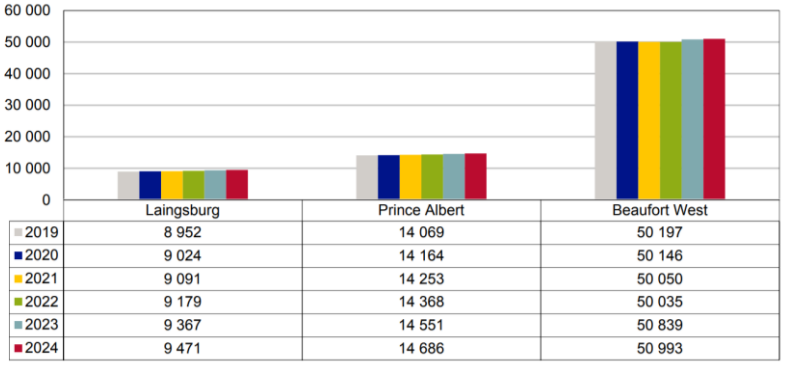


Figure 3.1: View of North End Prince Albert Town



	Laingsburg	Prince Albert	Beaufort West
2019	8 952	14 069	50 197
2020	9 024	14 164	50 146
2021	9 091	14 253	50 050
2022	9 179	14 368	50 035
2023	9 367	14 551	50 839
2024	9 471	14 686	50 993

Figure 3.2: PAM Population Projections (Source: MERO, 2019 from DSD, 2019)

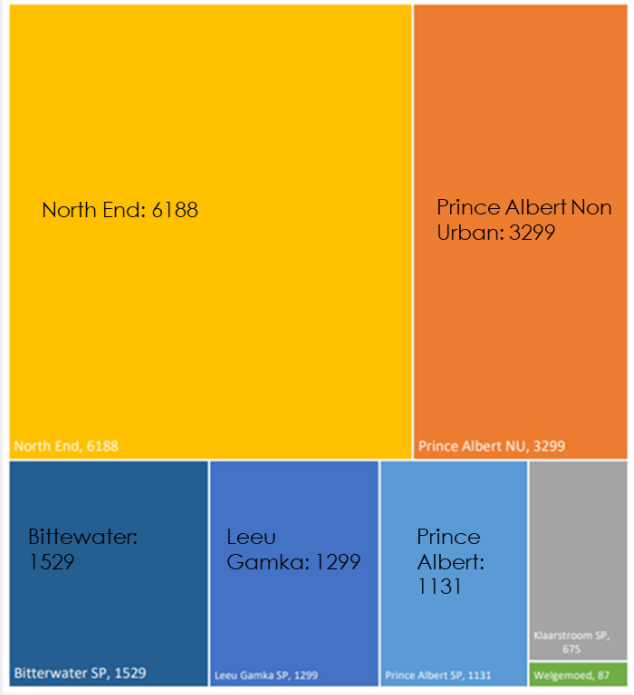


Figure 3.3: 2019 Socio-Economic Profile of Prince Albert According to Sub-Place (Source: DoTP Situation Report 2019/20)

3.2 ECONOMY AND EMPLOYMENT TRENDS AND FORECASTS

In 2017, the economy of the Central Karoo District Municipality (CKDM) was, in total, valued at **R3.0 billion** (in current prices) and contributed **0.5%** to the **GDPR** of the Province. Beaufort West has the largest economy in the CKDM, accounting for **69.9%** of the District's GDPR. Prince Albert and Laingsburg municipal areas contribute **16%** and **14.1%** respectively.

Three key sectors in the Prince Albert Municipal area are community services (**27%**); finance (**19%**); and agriculture (**17.2%**). The largest contributing sectors to overall employment are agriculture (**46.4 %**), community services (**14.4%**) and the construction (**6.5%**) sectors. Figure 3.4 shows the MERO 2019 Prince Albert sectoral GDPR and employment contribution trend for 2008 - 2017 (%).

The tertiary sector made the largest contribution of **R310.4 million** to PAM's GDPR (in current prices) and employed **2 154** persons. Construction activities generated **R36.7 million** of the GDPR of the secondary sector in 2017. In addition, the sector employs a greater proportion of the workforce in the secondary sector. However, due to the estimated decline in the GDPR of the construction sector by **4%,** the secondary sector incurred a net decline in GDPR by **0.6%** in 2018.

The agriculture, forestry and fishing sector has the largest workforce across all industries, employing **1 351** persons. However, the trend shows that there were **net job losses** (438) between 2008 and 2017. This is largely due to jobs shed between 2008 and 2010, which were not offset by additional jobs created between 2012 and 2013, and in 2015.

The decline in the workforce of the agriculture, forestry and fishing sector post- 2015 is linked to the persistent drought and electricity shortages which had a negative impact on the sector. Furthermore, it is estimated that the agriculture, forestry and fishing sector contracted by **2.2%** in 2018. This sector is one of the economic drivers in the Prince Albert municipal area, and its poor performance is likely to have a negative influence on the municipal economy. Diversifying economic activities by, for example, promoting tourism, can make the local economy more resilient to external and internal shocks affecting the agriculture, forestry and fishing sector.

	GDPR			Employment		
Sector	R million value 2017	Trend 2008 - 2017	Real GDPR Growth 2018e	Number of jobs 2017	Trend 2008 - 2017	Employment (net change) 2018e
Primary Sector	**106.9**	**3.8**	**-2.2**	**1 351**	**-438**	**-22**
Agriculture, forestry and fishing	106.9	3.8	-2.2	1 351	-438	-22
Mining and quarrying	-	-	-	0	0	0
Secondary Sector	**65.0**	**2.3**	**-0.6**	**298**	**31**	**0**
Manufacturing	15.3	1.3	4.4	42	-5	-3
Electricity, gas and water	13.0	3.6	3.6	11	5	0
Construction	36.7	2.5	-4.0	245	31	3
Tertiary Sector	**310.4**	**3.3**	**1.2**	**2 154**	**612**	**52**
Wholesale and retail trade, catering and accommodation	70.6	1.6	-4.0	637	133	4
Transport, storage and communication	40.8	2.6	2.5	105	35	0
Finance, insurance, real estate and business services	38.7	4.6	2.7	199	73	15
General government	105.8	4.6	2.5	553	161	12
Community, social and personal services	54.5	3.1	3.0	660	210	21
Total Prince Albert	**482.3**	**3.2**	**0.2**	**3 803**	**205**	**30**

Source: Quantec Research, 2019 (e denotes estimate)

Figure 3.4: Prince Albert sectoral GDPR and employment contribution, 2017 (%) (MERO, 2019)

From a labour absorption perspective, the GVA contribution of the finance (**19%**), community services (**27.0 %**) and trade (**12.8%**) sectors outweigh their overall employment contributions (**5.7, 14.4** and **6.4%**), implying that these sectors are quite capital intensive. The inverse is true for the agriculture sector which is much more labour intensive (**46.4%** of formal labour force) relative to its overall GVA output (**17.2%**).

The overall impact of **COVID-19** and the resultant **lockdown** on the economy of Prince Albert is likely to be quite harsh, with GVA contracting by **14.9** % by the end of the first year (year 1), while the CKDM economy will contract slightly less by 14.3% across the same period. Both economies will recover, but still register a net GVA loss of **5.6 %** and **5.2%** respectively for Prince Albert and the broader CKDM.

In the first 12 months following the lockdown which began on 27 March 2021, overall employment losses in Prince Albert will amount to **7.9%** and be more severe at **9.6%** across the broader CKD. Employment is expected to make a

significant recovery in year -2 of the post-lockdown period, but will not yet be enough to get to return to the pre-lockdown employment level.

In terms of **sectoral impact,** the sectors where GVA will be hardest hit by the pandemic over the initial 12-month period are tourism (**84.1%**), construction (**40.7%**) and mining (**20.3%**). In terms of employment, most job losses will come from the tourism (**60.0%**), construction (**25.9%**) and informal (**12.7%**) sectors.

In terms of **municipal revenue impact**, the knock-on effect of the lockdown measures and general restrictions placed on the regional economy will create a massive strain on municipal finances. The explicit link between the core revenue stream of a municipality and the overall economic performance of a region is best captured through the economic implications (sector performance and employment prospects) of expansion/contraction of GVA and anticipated consumption of municipal services. This implies that as disposable incomes decline across a specific region, the knock-on effect will be absorbed by lower than normal demand for basic services, an increase in the number of households that need to be subsidized with free basic services, and an increase in households that are unable to pay for property rates and services consumed.

Given the shutdown of industrial activity, especially in the sectors of manufacturing, construction and trade, the overall consumption of this key line item (electricity and to a lesser extent water) is sure to constrain municipal finances in the short-term, with annual projections severely impacted in this regard.

	Total GVA in 2019	Post 1-2 months GVA loss	Post 3-6 months GVA loss	Post 7-12 months GVA loss	Net GVA loss	Net loss as a % of sub sector	Net loss as a % of total GVA	Post 13 - 24 months GVA loss	Net loss as a % of GVA
Tourism	34 395	4 159	11 007	13 758	28 924	84.1%	4.3%	17 198	50.0%
Agriculture	114 927	4 331	3 831	850	9 012	7.8%	1.4%	2	0.0%
Mining	34	3	3	1	7	20.3%	0.0%	2	5.8%
Manufacturing	15 360	898	989	449	2 336	15.2%	0.4%	1 058	6.9%
Electricity	5 769	78	131	58	267	4.6%	0.0%	288	5.0%
Construction	77 674	5 826	10 323	15 472	31 620	40.7%	4.7%	7 767	10.0%
Trade	85 445	4 043	4 076	4 481	12 599	14.7%	1.9%	5 526	6.5%
Transport (incl telecomms)	26 755	1 545	788	430	2 763	10.3%	0.4%	-209	-0.8%
Finance (finance, insurance, real estate and other services)	126 725	2 129	2 112	2 423	6 664	5.3%	1.0%	5 182	4.1%
Community services (Public admin, defence, health & social work, other community services)	180 016	1 253	2 644	1 628	5 525	3.1%	0.8%	477	0.3%
	667 101	24 265	35 903	39 550	99 718			37 291	
		3.64%	**5.38%**	**5.93%**	**14.95%**			**5.59%**	

Figure 3.5: 12-month GVA Forecast (Source: DoTP Situation Report 2019/20)

	Total employed in 2019	Post 1-2 months Employment loss	Post 3-6 months Employment loss	Post 7-12 months Employment	Net Employment Losses	Net employment loss % of subsector	Net loss as a % of total Employment	Post 13 - 24 months Employment loss	Net loss as a % of Employment
Informal	555	29	31	11	71	12.7%	1.5%	4	0.8%
Tourism	212	17	49	61	127	60.0%	2.7%	51	24.0%
Agriculture	2 193	4	18	5	27	1.2%	0.6%	0	0.0%
Mining	1	0	0	0	0	4.4%	0.0%	0	2.1%
Manufacturing	86	1	2	1	4	4.2%	0.1%	2	2.3%
Electricity	30	0	0	0	0	0.7%	0.0%	1	1.8%
Construction	307	18	23	39	79	25.9%	1.7%	15	4.8%
Trade	302	3	7	9	18	6.1%	0.4%	9	2.9%
Transport (incl telecomms)	96	1	1	2	4	4.1%	0.1%	1	1.2%
Finance (finance, insurance, real estate and other services)	269	1	2	3	6	2.3%	0.1%	5	1.9%
Community services (Public admin, defence, health & social work, other community services)	680	1	14	21	37	5.4%	0.8%	4	0.6%
Total	4 731	74	147	153	373			92	
		1.56%	**3.10%**	**3.23%**	**7.89%**	**-7.9%**		**1.93%**	

Figure 3.6: 24-month Employment Forecast (Source: DoTP Situation Report 2019/20)

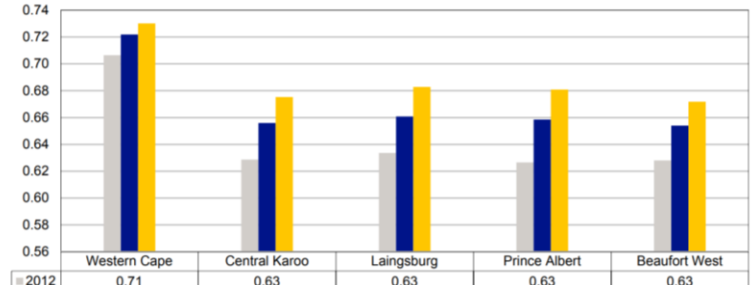
3.3 SOCIO-ECONOMIC CONDITIONS

As of 2018/19, Prince Albert Municipality is generally well serviced in terms of basic services and has a relatively low rate of crime, although drug-related crimes are relatively high per capita (See Figure 3.8).

Prince Albert has 5 schools, of which 4 are equipped with a library. The proportion of no-fees schools remains at **80%**. Prince Albert experienced significant progress regarding the matric pass rate between 2017 and 2018. The share of matriculants who passed increased from **69.2 %** in 2016 to **89.7%** in 2018, as per the MERO – although this differs with the graphic in Figure 3.8. However, the drop-out rate for learners in Prince Albert that enrolled from Grade 10 in 2014 to Grade 12 in 2016 was recorded at **48.1%**. High levels of school drop-outs are influenced by a wide array of factors, including socio-economic factors such as teenage pregnancies, poverty, indigent households and unemployment.

Prince Albert Municipality has 2 fixed clinics, 2 mobile/satellite clinics and 1 district hospital. These are the Klaarstroom Satellite Clinic, Leeu Gamka Clinic, Prince Albert Clinic, Prince Albert Hospital, Leeu Gamka Ambulance Station and the Prince Albert Ambulance Station. These facilities can be seen in Figure 3.9 on the following page.

Figure 3.7 shows the Human Development Indexes per municipal area in the CKD between 2012 and 2018. It is positive that the HDI is improving year-on-year despite the low levels of income and poor economic growth in the region.



	Western Cape	Central Karoo	Laingsburg	Prince Albert	Beaufort West
2012	0.71	0.63	0.63	0.63	0.63
2015	0.72	0.66	0.66	0.66	0.65
2018	0.73	0.68	0.68	0.68	0.67

Source: IHS Markit, 2019

Figure 3.7: HDIs per municipal area, Central Karoo District, 2012 - 2018

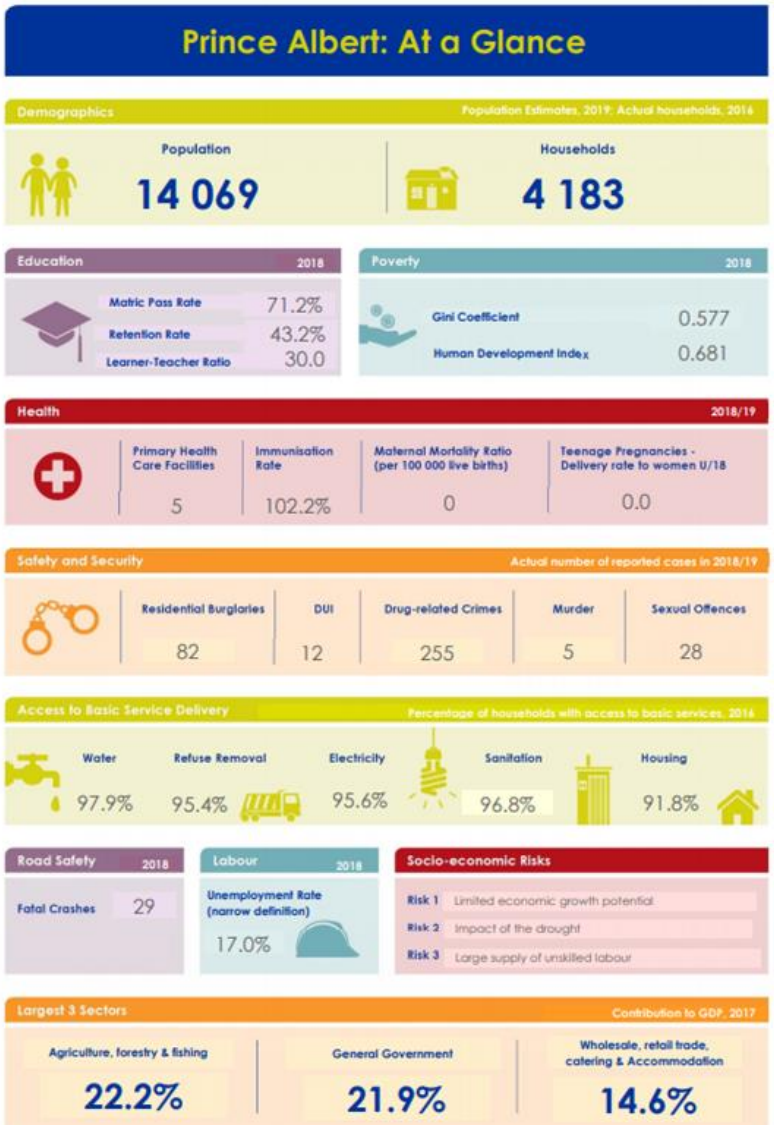


Figure 3.8: PAM 2019 Socio Economic Profile (Source: DSD 2020)

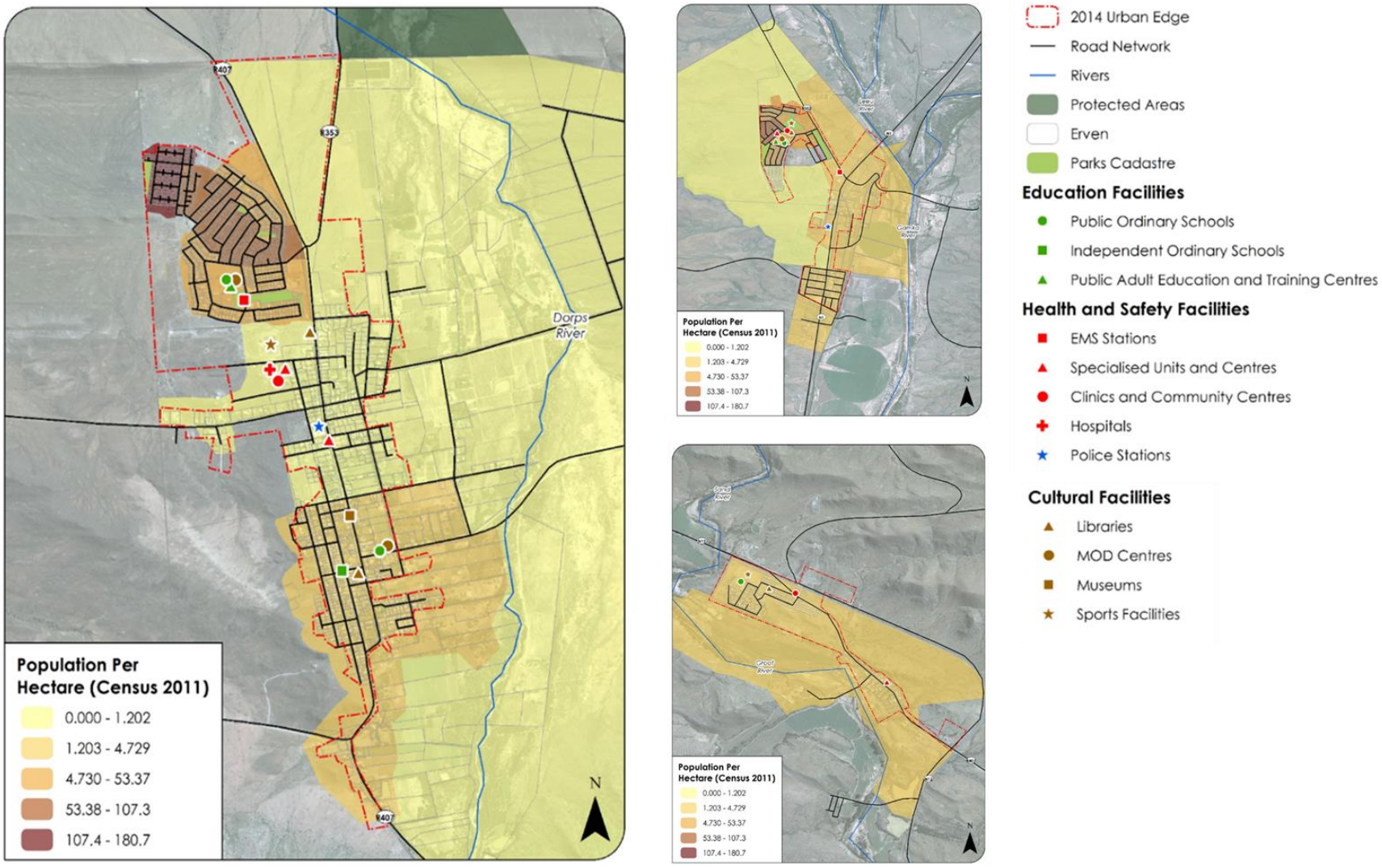


Figure 3.9: PAM Social Facilities overlaid with number of people per town

3.4 PROPERTY MARKET

Figure 3.11 shows the average sale of Price Prince Albert Town each year between 2011 and 2020. The average sale price increased from 2008 to 2019 although the number of sales has remained stagnant

Figure 3.10 shows the number of properties on the market in Prince Albert Town, which increased from **119** to **140** between April and July 2020. The average asking price **R 3 453 846**. It is not clear whether houses on farms or small holdings are also factored in these figures. The highest number of properties which were on the market during this period was 114 in February 2018. Figure 3.12 shows the number of properties on the market by number of bedrooms. The 3 bedroom properties are the highest typology.

In terms of the agricultural land property market, variations in land prices may be attributed to water availability, farms size, current use and carrying capacity. According to SAfarmerstraders.co.za, on the 9th of May 2018 there was a total of **35** farm properties on the market in the Prince Albert Municipal area at an average asking price of **R 13 132 615**.

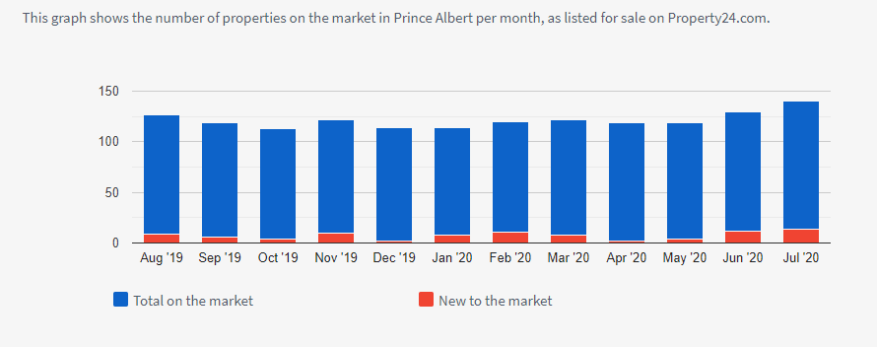


Figure 3.10: Properties on the Market as listed on Property24.com Aug 2019-July 2020 (Source: Property 24)

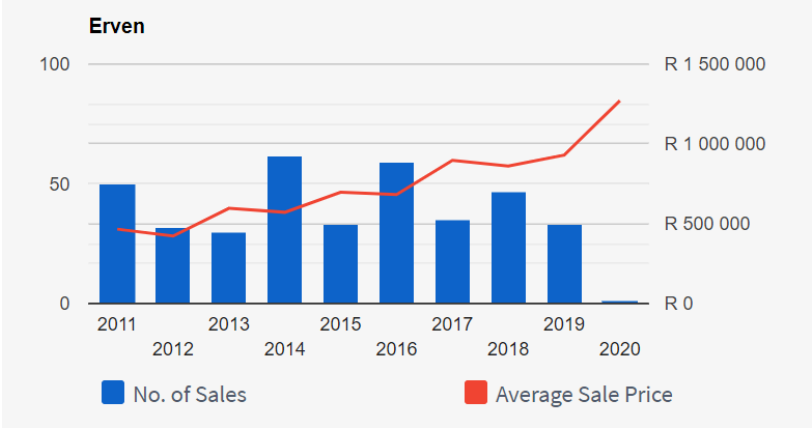


Figure 3.11: Average sale Price of Erven and Section Title Units sold in PAM (Source: Property 24)


This table shows the number of properties on the market, by number of bedrooms, in Prince Albert per month, as listed for sale on Property24.com.

No. of Beds	Feb '20	Mar '20	Apr '20	May '20	Jun '20	Jul '20
0 bed *	43	42	39	41	47	47
1 bed	1	1	1	0	0	0
2 bed	18	17	18	18	19	22
3 bed	32	36	35	34	35	38
4 bed	14	16	16	16	17	19
5+ bed	12	10	10	10	12	14
All	120	122	119	119	130	140

* Please note: Properties with 0 bedrooms will include vacant land and commercial property.

Figure 3.12: Number of properties on the market by number of bedrooms (Source: Property 24)

3.5 MUNICIPAL FINANCES

Prince Albert generates 56.93% of its own money whilst it receives 43.07% from the equitable share of taxes and grants from National Government (Municipalmoney.gov.za).

The bar chart in Figure 3.12 shows how much of a municipality's income it can generate itself (through property rates, service charges, and other sources), compared with how much it receives as transfers and grants from national government. The more a municipality can generate its own income, the more self-sufficient it is.

In 2019, Prince Albert generated (see Figure 3.13):

- R3.4 million from property rates;
- R22.4 million from service charges;
- R0.5 million from rental income;
- R3 million from interest and investments;
- R3.7 million from fines;
- R0.2 million from agency services;
- R43.8 million from government transfers for operating expenses;
- R12.4 million from government transfers for capital expenses;
- R5.3 million from 'other' sources.

Some of the largest expenditure items in 2019 included (see Figure 3.14):

- R12 million on electricity;
- R26 million on governance, administration, planning and development;
- R18.6 on housing;
- R2.3 million on waste management;
- R3.8 million on wastewater management.

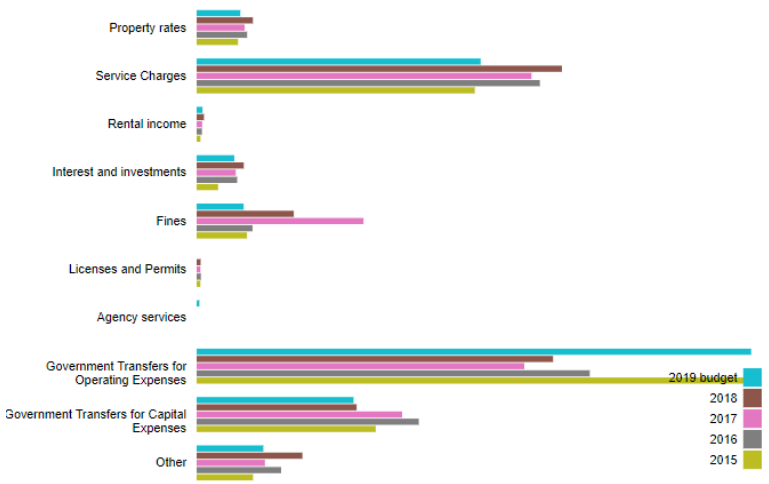


Figure 3.13: PAM Generated Income (Municipalmoney.gov 2019)

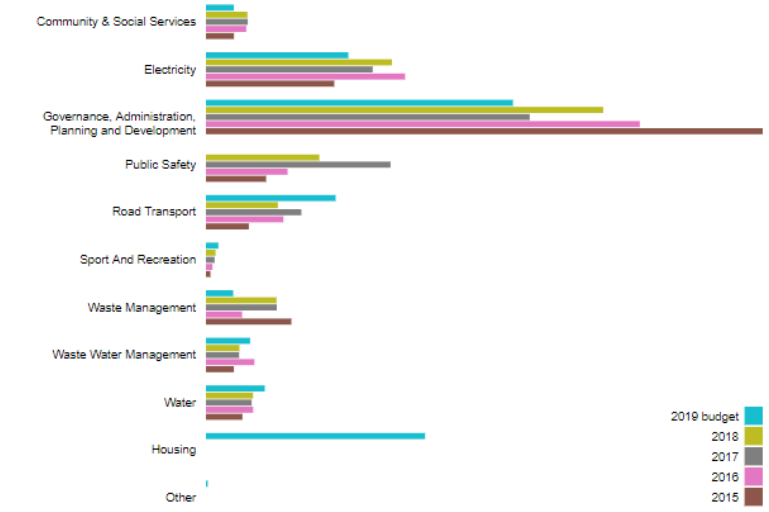


Figure 3.14: PAM Expenses (Municipalmoney.gov 2019)

3.6 TOURISM

Prince Albert town is the primary centre for tourism activity within the municipality. Figure 3.14 shows the Tourism Places of Interest in the municipality. Tourist attractions in the region are associated with heritage, adventure and ecotourism.

Prince Albert forms part of the Klein Karoo Wine Route and has numerous game farms and protected areas which collectively attract both national and international tourists to the region.

Areas of natural beauty for tourists include:

- The Swartberg Mountain Range;
- Gamkaskloof and Groot Swartberg Nature Reserves, Swartberg, Gamkaskloof and Meiringspoort passes;
- hiking, trail running and mountain biking;
- The olive festival;
- Thirteen national monuments.

The Prince Albert 2017 – 2022 Integrated Development Plan (IDP) has identified various Tourism Projects for implementation. These are outlined below:

- The Tourism Sector Support Project;
- The Development of a Tourism Strategy;
- The Neighbourhood Revitalisation and Urban Design Project;
- The Branding and Marketing Project;
- The Youth Entrepreneurship Mentoring Scheme;
- The N12 Treasure Route.

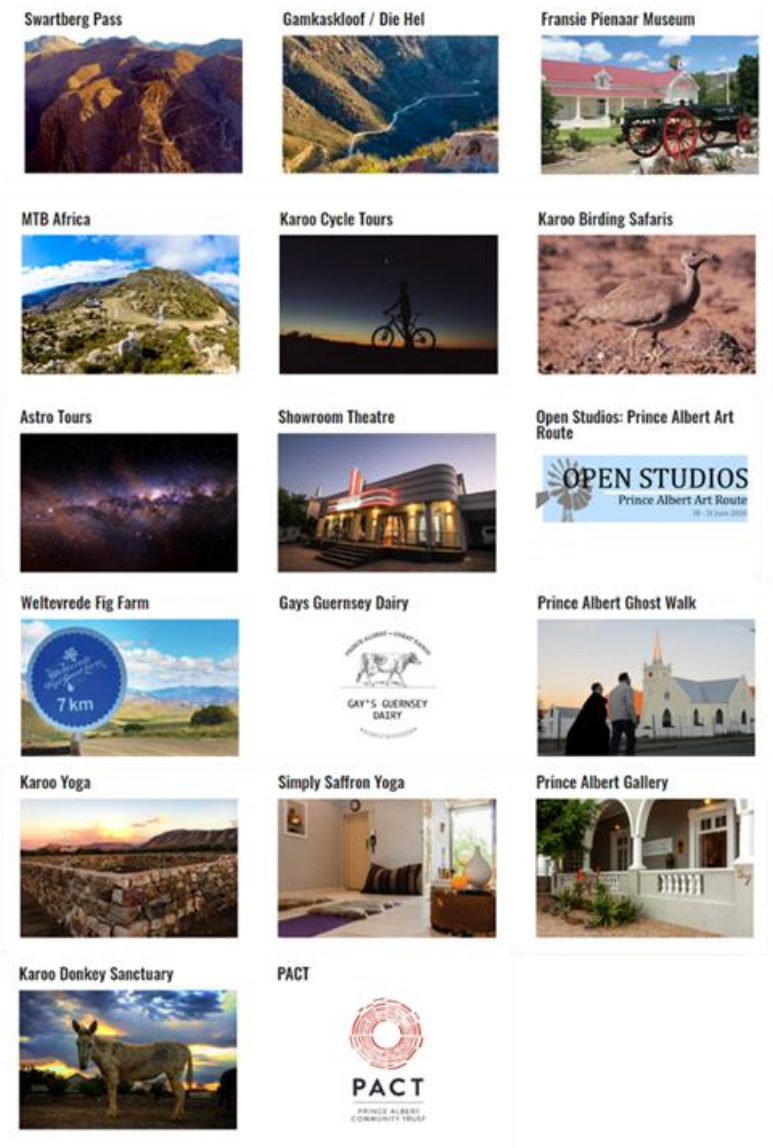


Figure 3.14: Tourism Places of Interest as Per PAM Tourism website

3.7 LAND REFORM & RURAL DEVELOPMENT

The NDP targets, amongst other things, the development of a more inclusive and integrated rural economy. Its rural strategy is based on land reform, agrarian transformation, livelihood and employment creation, and strong environmental safeguards. Land reform and rural development, the responsibilities of National Government, are also on the PSDF's spatial agenda as they have an important contribution to make to rural transformation. Overall, the evidence suggests that the pace of land reform in the province has been slow, and that there has been limited employment of underutilised state, provincial and municipal land as well as commonage to date. Strategies to develop small scale farmers are yet to produce results at scale.

Figure 3.15 sets out the DRDLR Agri-Park components including the enlarged FPSU catchment areas (60km) applicable in the Central Karoo and reference to the Rural Nodes (CRDP Wards), the location of the proposed Agri Hub in Beaufort West, and Farmer Production Support Units in Laingsburg, Merweville, Prince Albert and Murraysburg. Figure 3.16 displays the Land Reform Projects per type in PAM.

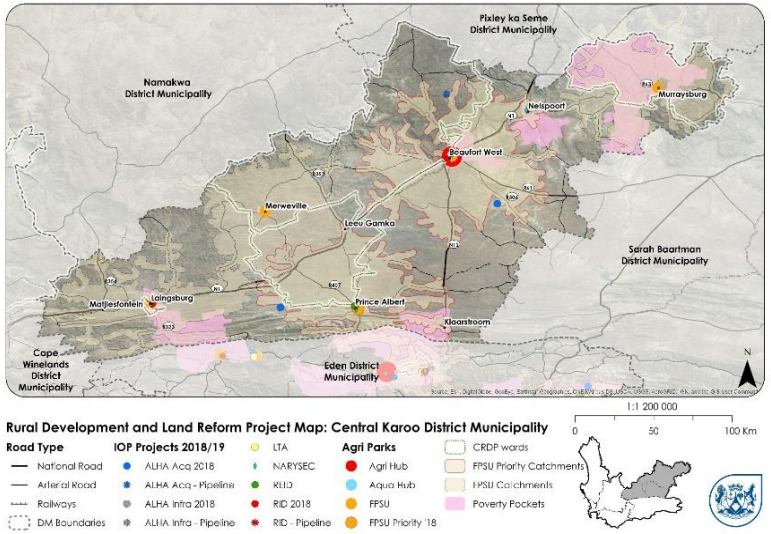


Figure 3.15: Rural Development & Land Reform Projects on CKDM

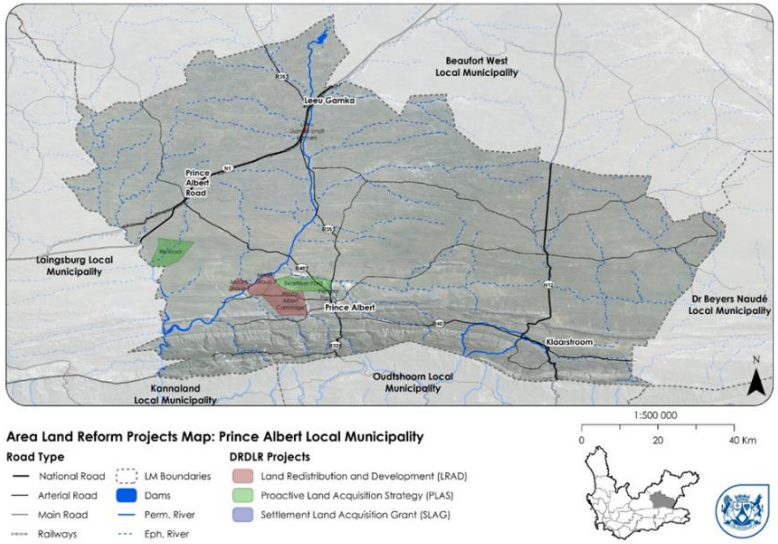


Figure 3.16: Area Land Reform Projects in PAM

4. BUILT ENVIRONMENT ASSESSMENT

4.1 URBAN SETTLEMENTS AND SETTLEMENT HIERARCHY

Population is a crucial factor in determining the hierarchy of settlements in a region and deciding how to target levels of service provision. Figure 4.1 shows the Settlement Hierarchy Map for CKDM.

Based on the CSIR Guidelines, Prince Albert is a major rural settlement which offers some medical, educational, commercial and administrative services to the surrounding farming communities. Minor rural settlements like Prince Albert Road, Klaarstroom and Leeu Gamka offer very limited services and are usually structured around farming, railway, or transport activities within the Municipal area.

Figure 4.2 illustrates the Settlement Hierarchy for the Prince Albert municipal area. It should be noted that the PSDF (2014) identifies both Prince Albert (the town) and Klaarstroom as Secondary Regional Service Centres and Leeu-Gamka as a Rural Settlement, however this lack of differentiation between Prince Albert and Klaarstroom is problematic at this scale, and hence Prince Albert (the town) is identified as the Major Rural Settlement whilst the other settlements in the municipality are identified as Minor Rural Settlements. This assists in determining hierarchy for the allocation of facilities, and services.

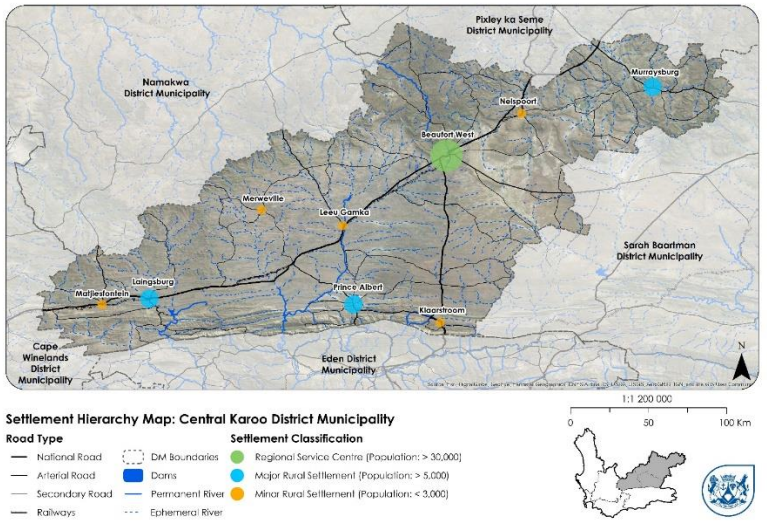


Figure 4.1: Settlement Hierarchy Map for CKDM

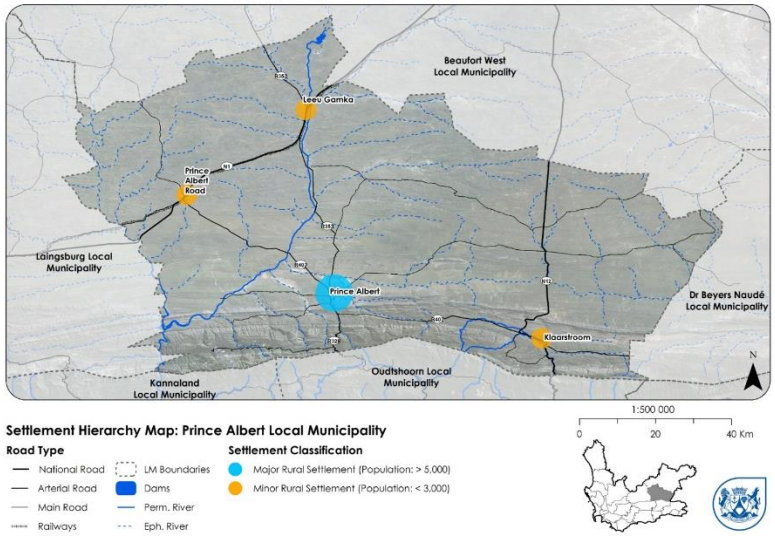


Figure 4.2: Settlement Hierarchy Map for PAM

4.2 HOUSING

Housing need refers to the total housing need according to the backlog and projected forecasts. Housing demand refers to the ability of a household to afford a house via subsidy, bank loan or own funds.

The following sets out the number of persons on the housing waiting list (as at June 2020):

Prince Albert Municipality: 1201

- Prince Albert Town: 718
- Leeu Gamka Town: 335
- Klaarstroom Town: 144
- Prince Albert Road 4

Figure 4.3 shows the 5-year housing Delivery Plan for the Central Karoo District and Figure 4.4 on the following page shows the housing delivery pipeline in space. In the **2018/2019** financial year, the Department of Human Settlements built 143 units in Prince Albert. In **2019/20/21**, they planned to build 208 units in Prince Albert. However, given the COVID 19 related budget cuts, the recent 2019-20 – 2023/24 HSDG 5-year delivery plan shows no budget for housing in Prince Albert Municipality.

A strength related to housing in Prince Albert has been that the low population growth rates and low prevalence of existing informal dwellings have made it easier for the competent local and provincial authorities to keep on top of housing demand. However, budget cuts in conjunction with rising population growth rates could threaten this fragile equilibrium.

5 YEAR DELIVERY PLAN Post-GAAC 10 July 2020 2019/20 - 2023/24 HSDG	PROGRAMME	2020/2021			2021/2022			2022/2023			2023/2024		
Average Site Cost (R'000)	60	SITES SERVICED	HOUSES BUILT	FUNDING R '000	SITES SERVICED	HOUSES BUILT	FUNDING R '000	SITES SERVICED	HOUSES BUILT	FUNDING R '000	SITES SERVICED	HOUSES BUILT	FUNDING R '000
Average Unit cost (R'000)	130												
CENTRAL KAROO DISTRICT													
Beaufort West		0	0	300	0	0	0	0	0	1,000	0	0	2,811
Beaufort West S1 (814) (798)	IRDP												
Beaufort West G2 GAP (67)	IRDP												67
Beaufort West S7 (624) IRDP	IRDP												624
Beaufort West G1 GAP (120)	IRDP												120
Beaufort West Kwamandlenkosi Mud Houses (18)	IRDP		0	0									
Murraysburg Toilets	IRDP			0									
Murraysburg Housing Upgrades	IRDP			0									
Murraysburg (300)	IRDP			300						1,000			2,000
Laingsburg		0	0	0	0	0	0	0	0	0	0	0	0
Laingsburg Site G (1000) IRDP	IRDP												
Prince Albert		0	0	0	0	0	0	0	0	0	0	0	0
Prince Albert (451) (ph1 243)	IRDP												
Prince Albert (451) (ph2 208)	IRDP												

Figure 4.3: HSDG 5 year delivery plan as at 10 July 2020

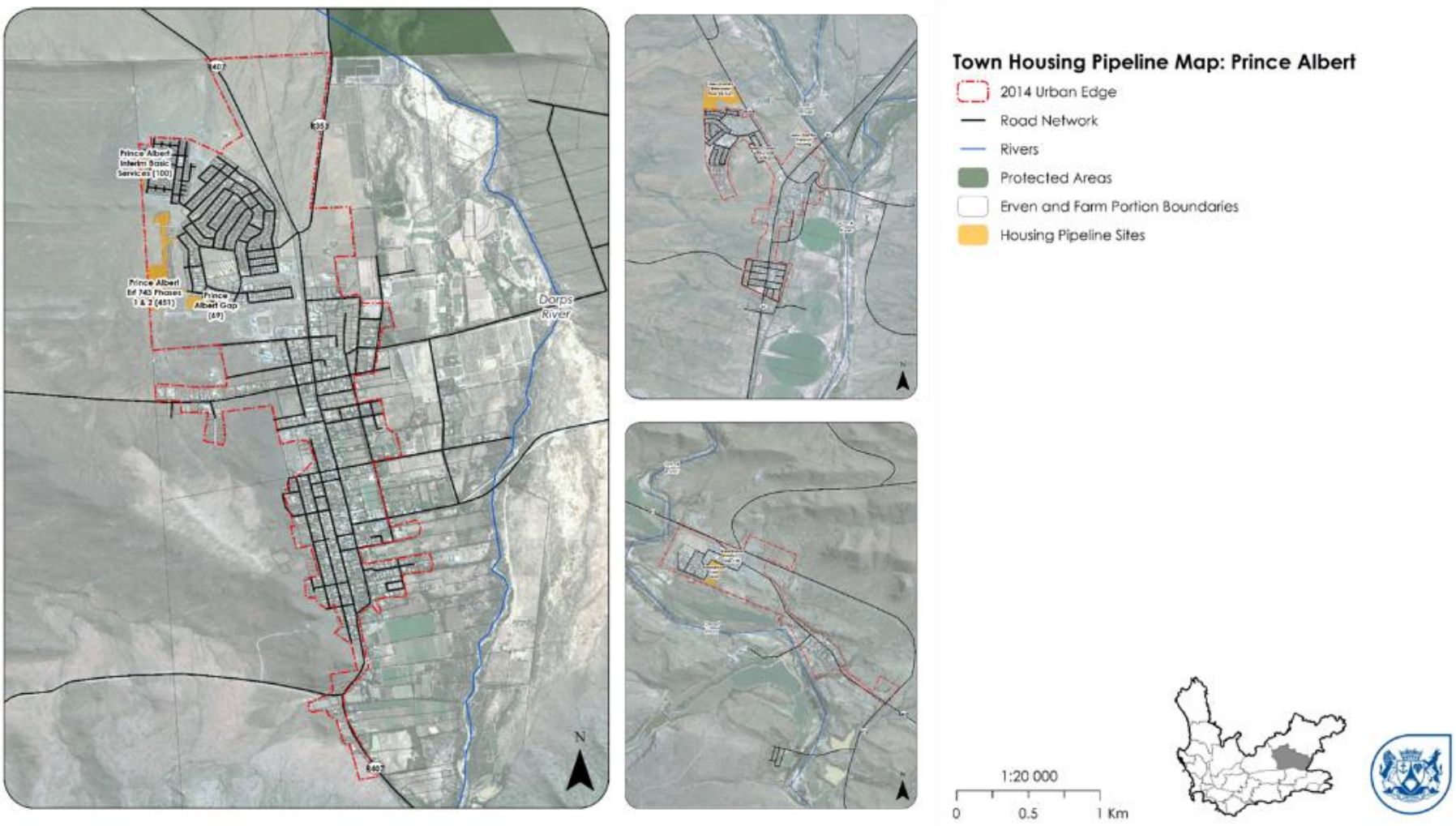


Figure 4.4: Planned HSDF Pipeline Projects (Erf 743 Phases 1 and 2 are complete

4.3 ROAD, RAIL & PUPLIC TRANSPORT

4.3.1 Road Network

The N1 and N12 are 'lifelines' to the economy of the municipality, and hence their condition is important. The Integrated Transport Plan (ITP) for the Prince Albert Municipality (2015-2019) shows that the municipal road is made up of a combination of national, provincial and municipal roads, of which **15%** of the total road length is surfaced as illustrated in Figure 4.5. Key information from the ITP 2019/2024, which is in draft format, show the following:

N1

- Major key district connector between Beaufort West and Laingsburg;
- 63 kilometres through the municipal area;
- maintained by SANRAL;
- average of 2596 vehicles trips per day (46% heavy vehicles).

N12 (TR034)

- 67 kilometres through the municipal area;
- connects with the R407(TR03401) in Klaarstroom and provides access to the town of Prince Albert;
- national road designation, but also considered as a trunk road. Therefore, maintained by the Western Cape Provincial Government;
- averages 872 vehicles per day during 2013 of which 201% were heavy vehicles. The road condition is very poor to fair.

R407 (TR03401)

- Connects with the N1 in Prince Albert Road. The road further runs through the town of Prince Albert, across the Kredouw Pass connecting to Klaarstroom where it follows the N12 for 7 kilometres and then towards Willowmore.

Other important roads in Prince Albert include:

- R353 (TR07301), which runs to the north of Leeu-Gamka towards Fraserburg. The length of road from the N1 to Fraserburg is 19.2km;
- the R328 gravel road from the R407 through the Swartberg Mountain Range leading to Oudtshoorn, which is 16 kilometres in length;
- the 44 km R353 gravel road from the town of Prince Albert to the N1 on the north.

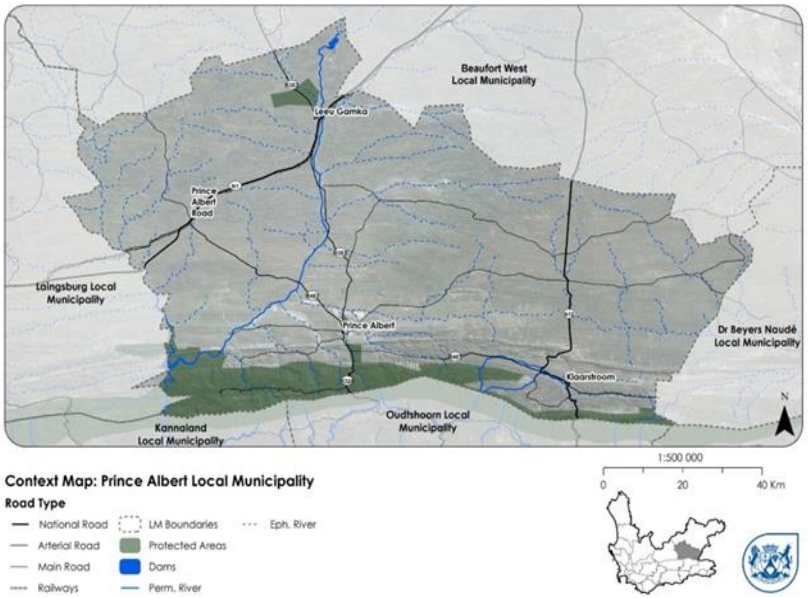


Figure 4.5 Roads Context Map of PAM

4.3.2 Rail Network

The majority of rail freight movement in the Prince Albert municipal area is along the N1 (Cape Town and Gauteng corridor) and is primarily cross-country movement. Approximately 20 million tonnes of freight per annum are carried through road and rail, of which 85% is road freight and 15% is on rail. This places significant pressure on the road upkeep and creates conflict between cars and trucks.

4.3.3 Public Transportation

No regular public transport services exist in the Prince Albert municipal area. Unscheduled and irregular long-distance intra-provincial mini-bus taxi services provide access to Oudtshoorn, George, Worcester, and Cape Town.

The only passenger rail service in the Municipality is provided by PRASA's Shosholoza Meyl, operating between Cape Town and Johannesburg (it operates between Cape Town and Queenstown, departing on Thursdays and returning on Saturdays). The train does not stop at Prince Albert and Leeu-Gamka for passenger boarding or alighting purposes. Prospective passengers must travel to Beaufort West to make use of these services.

Long distance bus operators have scheduled daily stops in Prince Albert Road with connections to Cape Town, Kimberley, Bloemfontein, Durban, Johannesburg and Pretoria.

4.3.4 Learner Transportation

Learner transportation is provided by the Western Cape Department of Education from the rural settlements to three schools – namely 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.

4.3.5 Air transport

There is one landing strip/airfield in Prince Albert. It is primarily used by light aircraft for tourism and leisure purposes. The airstrip is situated on the northern side of the town of Prince Albert between the R328 and R353.

4.3.6 Non-Motorised Transportation

Walking is a primary transport mode to access services and facilities within settlements. In Prince Albert (the town), a significant number of learners walk to and from school via Church Street. The pedestrian walkways provided along the road reserve are narrow and often result in learners walking in the street. This situation presents a road safety risk for learners and other road users.

The ITP for Prince Albert indicates that the municipality has implemented phase one of its non-motorised transport plan which links the primary school in North End with the Thusong Centre in Church Street. The second phase entails linking up the Thusong Centre with the secondary school. Phases three and four are planned for implementation as and when funding becomes available. Figure 4.6 illustrates the various phases of the Non-Motorised Plan for Prince Albert.

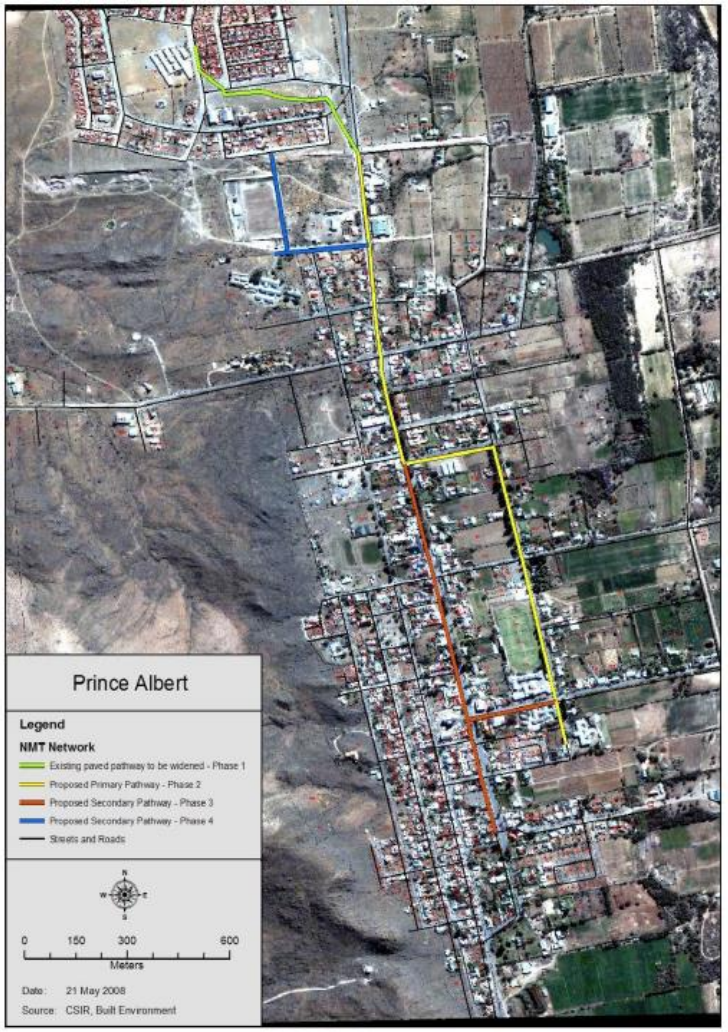


Figure 4.6: Phased implementation of the Non-Motorised Transport Plan for Prince Albert (source: Prince Albert ITP, 2015-2019)

4.4 INFRASTRUCTURE SUPPLY AND STATUS

Given the pressing drought conditions, and the development of a Central Karoo Drought Response and Action Plan (2018), this section sets out the water infrastructure projects that have been identified for the Prince Albert Municipal area. Figures 4.7 to 4.9 show the water infrastructure plans for Prince Albert Town, Bitterwater and Klaarstroom. Below is the state of water production in each town:

4.4.1 Prince Albert Town

- Nine Production boreholes;
- fountain – 20 hours a week as well as 10 of irrigation water on a 24/7 basis;
- four raw storage dams – 2.4 Ml;
- reservoirs – 4.0 Ml;
- demand – 1.5 Ml/day;
- supply – 1.9 Ml/day.

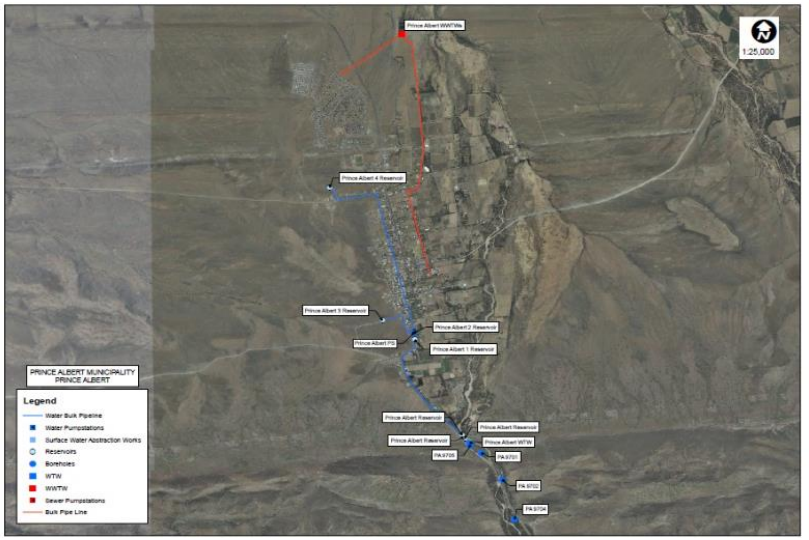


Figure 4.7: Water Infrastructure in Prince Albert Town

4.4.2 Leeu Gamka

- Two production boreholes – one belonging to Transnet;
- four newly drilled boreholes, one to be equipped in 2018/19;
- Transnet can also supply water in a crisis;
- one reservoir;
- supply meets demand.

4.4.3 Klaarstroom

- Two production boreholes close to each other;
- four newly drilled boreholes, one to be equipped in 2017/18;
- two reservoirs – 0,1kl and 0.2 kl;
- supply meets demand.

4.4.4 Prince Albert Road

- One production borehole – Transnet;
- one reservoir – 50 kl;
- Supply meets demand.

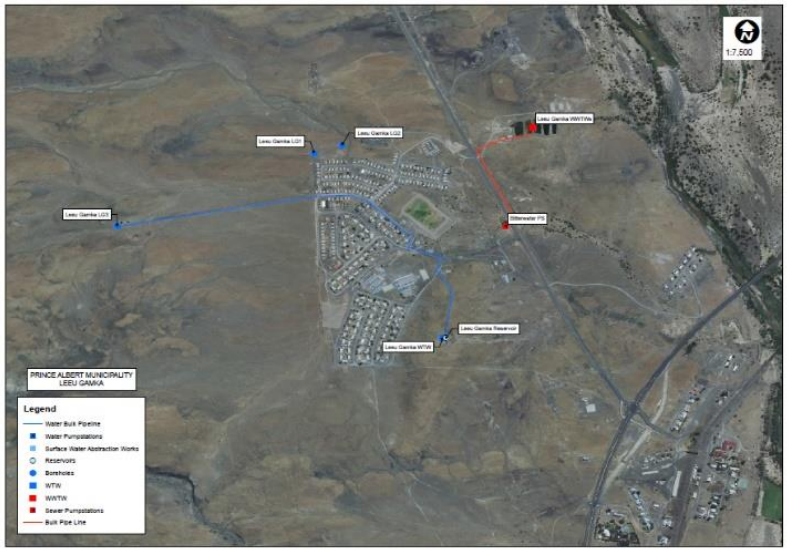


Figure 4.8: Water Infrastructure in Bitterwater/ Leeu Gamka

4.4.5 Water Projects in Prince Albert

1. Additional reservoir on the North End side of Prince Albert must be established;
2. borehole to be drilled at Noordeinde in Prince Albert;
3. build diversion structure in river with gabions for irrigation furrow in Prince Albert 2018/19;
4. four data loggers to be installed at Prince Albert in various boreholes to monitor water levels as well as one at Leeu Gamka;
5. equipping boreholes in Klaarstroom, Prince Albert and Leeu Gamka-2017/18;
6. package plant to take Fluoride out of Transnet borehole water in Leeu Gamka – 2018/19;
7. future projects might be drilling of two boreholes and package plant near Noordeinde Prince Albert;
8. off stream dam for fountain water in Prince Albert;
9. bulk water meters to be installed also on boreholes in all towns.

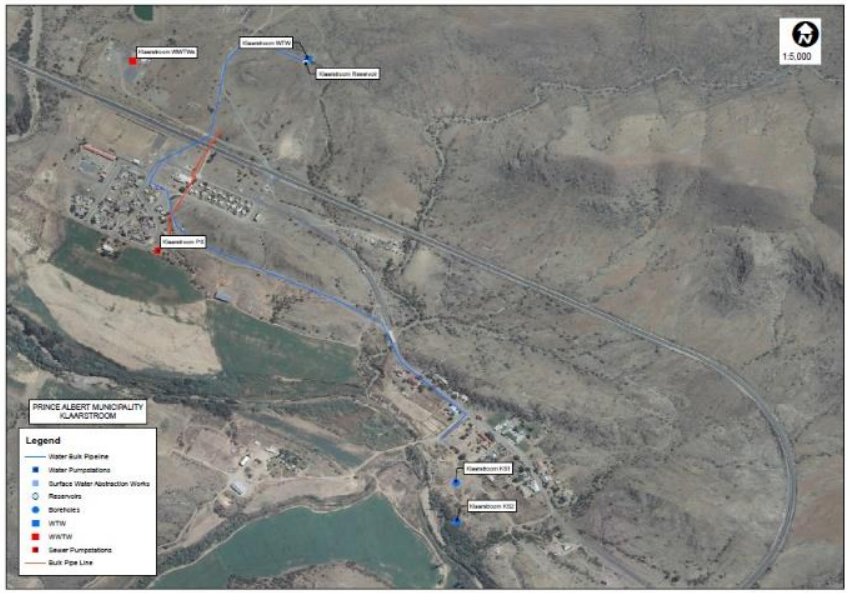


Figure 4.9: Water Infrastructure in Klaarstroom

4.4.6 Key Water Project Achievement in Prince Albert 2018-19

1. Re-allocated MIG allocation towards water resource management;
2. telemetric system to monitor water facilities;
3. restriction of the water use to 90 litres per person per day reduced daily demand from nearly 2.2 ML to 1.3 ML per day in Prince Albert Town,

4.5 ENERGY AND ELECTRICITY

The Electricity Master Plan is dated 2016/17. This needs to be re-evaluated and updated based on recent developments in the renewable energy sector and the Municipal Energy Resilience plan from WCG. The load forecast is derived from the percentage annual household growth increase from the 2014 SDF. The existing load on the Prince Albert network is in the order of 2.5MW and is expected to grow to between 3.5 and 5.5 MW by 2030.

With the expected load growth in the future, the above deficiencies will be more prominent. Voltages just below steady-state criteria are also expected to continue. These are further worsened by the large development expected at the North End

There are high and medium voltage powerlines running along Leeu-Gamka and Klaarstroom. Only medium voltage powerlines connect the town of Prince Albert.

Powerlines form part of the national power grid and have several substations which branch out to supply energy to various settlements and rural areas (farms).

The proportion of households with access to electricity in Prince Albert was **96.8%** in 2016. Alternative energy sources within the municipality include gas, paraffin, wood, coal, animal dung and solar.

Climate conditions within the municipality present an opportunity for solar energy generation projects and the use of renewable energy sources should be explored and encouraged by the municipality.

In Klaarstroom and Leeu-Gamka, electricity is directly supplied by ESKOM, thus impacting on revenue collection.

The municipality needs to conclude a credit collection agreement with SALGA. Illegal electricity connection within residential areas remains a concern.

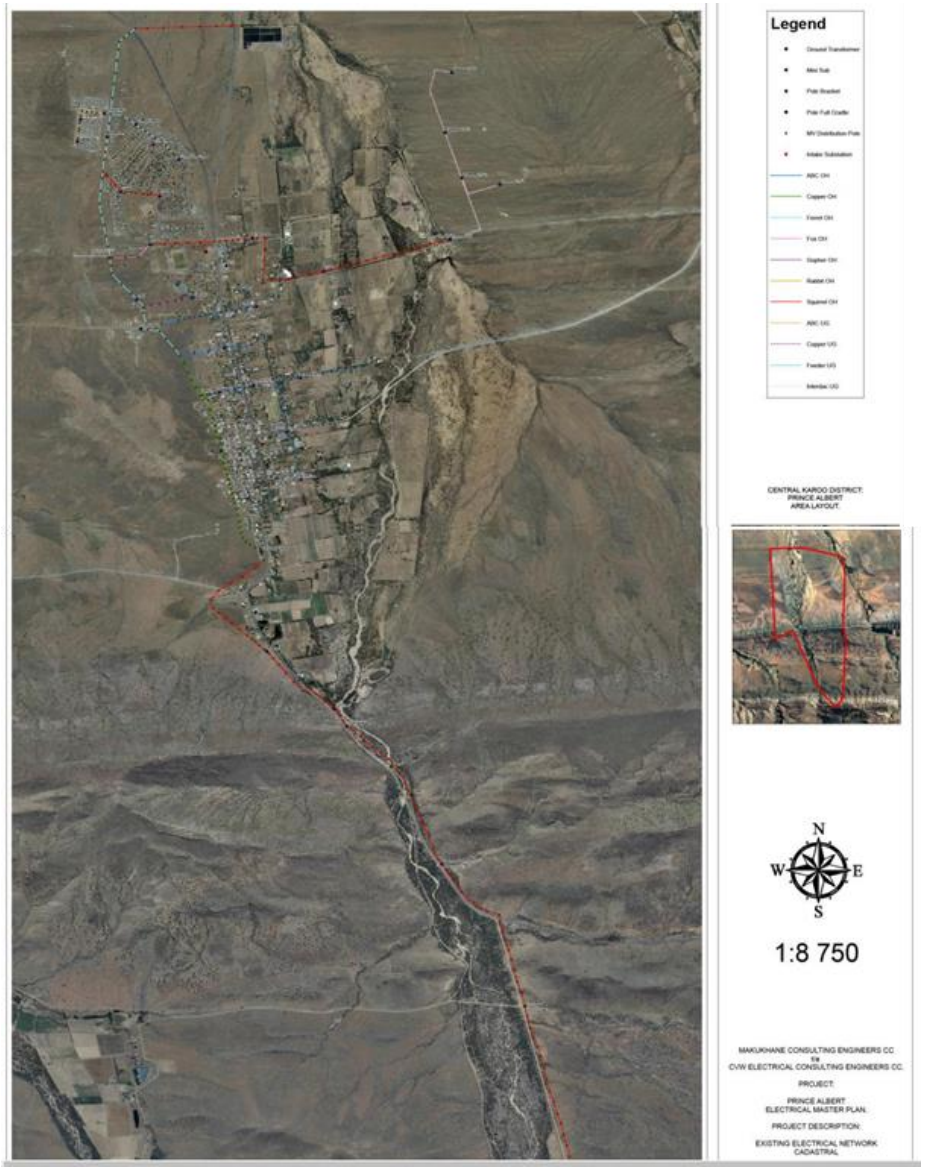


Figure 4.10: Electrical Infrastructure in Prince Albert Town

4.6 WASTE INFRASTRUCTURE

Waste in Prince Albert is collected at weekly intervals with three waste removal vehicles, a small truck for the collection of refuse, another small truck for the collection of garden refuse and a tractor for the removal of domestic waste in Leeu- Gamka.

There are five existing waste mini-transfer stations for garden waste disposal in the North End of Prince Albert. These facilities have been fenced and are not designed nor intended for household waste. Unfortunately, illegal dumping still proves to be a challenge in some of the areas.

The Prince Albert Municipality has three operational and licenced Waste Disposal Facilities (WDF). These are situated in Prince Albert, Leeu-Gamka and Klaarstroom. The poor condition of these Waste Disposal Facilities is concerning. Areas which require urgent attention at these facilities relate to storm water management, windblown litter and access control.

There are several very specific challenges which require several systems to be in place in order to deliver an effective waste management service. These broadly include the following:

- Mismanagement and illegal dumping at waste disposal facilities;
- lack of awareness, training and funding for infrastructure as well as operational and maintenance costs;
- the co-disposal of garden waste with household waste results in limited landfill space;
- there are no mechanisms in place for record keeping of waste generated;
- there is no groundwater monitoring at WDFs.

The municipality should determine the suitability of programmes for their specific needs and should utilise the most appropriate systems for the municipal area. These programmes include the following:

- Promoting integrated waste management within communities, schools, businesses and other institutions within the municipality;
- establishing and implementing an accurate waste quantification system;
- capacitating waste managers in the public and private sectors with regard to the basic principles of sound waste management;
- ensuring that Integrated Waste Management functions are executed in an environmentally and socially acceptable manner;
- maintaining source separation of waste within all areas of the municipality;
- finalising the recovery of recyclable organics and builder's rubble.
- ensuring compliance of all waste disposal facilities with license conditions;
- establishing integrated waste management facilities;
- developing an integrated waste management By-law;
- promoting Safe handling storage, transportation and disposal of hazardous waste;
- addressing funding constraints of waste management authorities;
- improving funding for waste management services.

The municipality must include the cost for additional infrastructure required to increase a **20%** diversion from landfill disposal facilities by 2020 for all towns within the municipality.

To ensure infrastructure compliance until 2030, the Prince Albert Municipality should make provision for additional disposal airspace and therefore should construct a 12-year cell in compliance with a Class B liner in terms of the 2013 Norms and Standards at a cost of approximately **R14 876 357.00**.

The municipality must develop its 3rd generation Integrated Waste Management Plan, which must be approved by Council. This plan should include a detailed implementation plan and budget to ensure that funding is allocated for rehabilitation and establishment of integrated waste management facilities. The municipal IWMP is the vehicle or blueprint of the municipal strategic plan towards implementing integrated waste management within the municipality.

4.7 BUILT HERITAGE

The Prince Albert Cultural Foundation (PACF), the Prince Albert Heritage Inventory (2009-2011) and the Heritage and Scenic Resources: Inventory and Policy Framework for the Western Cape, 2013: Heritage resources include:

- All graveyards

  There are five cemeteries, consisting of two in Prince Albert, two in Leeu-Gamka and one at Klaarstroom Weltevrede at the entrance point to the town of Prince Albert where graves are very close to the road. The DRC graveyard is at risk from floodwater erosion. The Khoekhoen-type graves on Trientjiesriver Farm are on municipal property which is currently used by previously disadvantaged farmers. New cemeteries are needed for all settlements in the Municipality.

- Water furrow system

  The water furrow is indicated on the updated 2018 version of the Prince Albert Heritage Inventory, which is available from the Prince Albert Cultural Foundation.

- Historic Town Farms, (70 ha of fertile and arable soil)

- 13 proclaimed monuments (See Figure 4.11 and 4.12)

- The Swartberg Pass is another heritage resource (Grade 1. National) within the municipal area. It requires constant monitoring after periods of heavy rainfall

- Geological, rock art, archaeological, historical and built resources, throughout the district of which most are privately owned (protected to a certain extent in terms of the NHRC legislation)

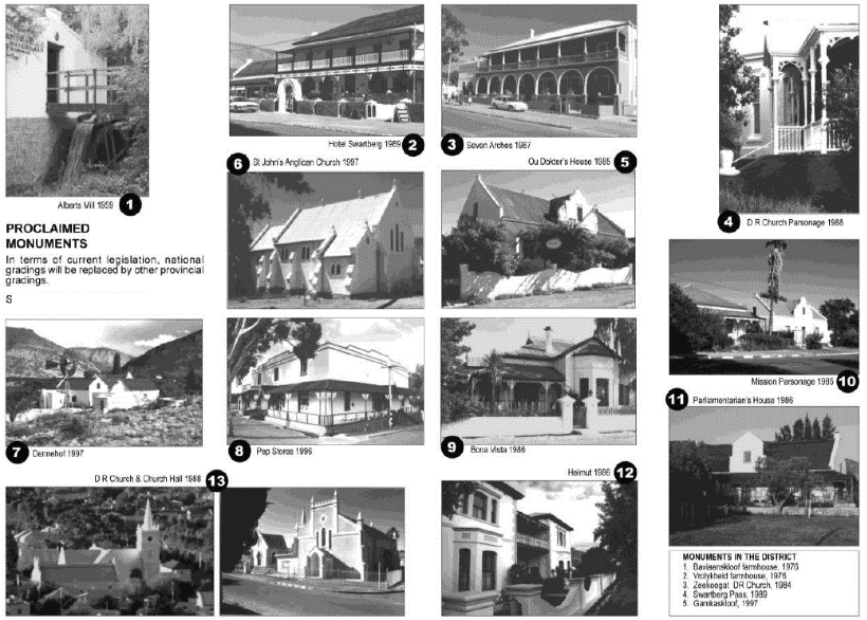


Figure 4.11: Heritage Resource Inventory for PAM

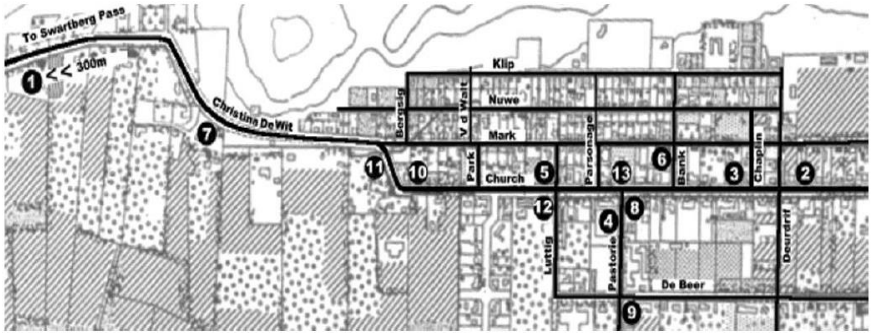


Figure 4.12: Heritage Resource Inventory for PAM

5. DISASTER RISK AND COMMUNITY BASED RISK ASSESSMENT (CBRA)

The **Disaster Risk Assessment** and **Risk Register** was completed for PAM in 2019. The highest risks are drought, disruption of water supply, floods, wild fires and road accidents. These exist along with the recent shock and prolonged risk of the COVID 19 pandemic and the associated economic effects of the lockdown.

The Spider chart in Figure 5.1 shows the vulnerabilities of each settlement in PAM per the CSIR Green Book Adaptation Actions 6 composite indicators (2019). A high vulnerability score (close to 10) indicates a scenario where an undesirable state is present. Factors causing this can include low access to services, high socio-economic vulnerability, poor regional connectivity, environmental pressure or high economic pressures.

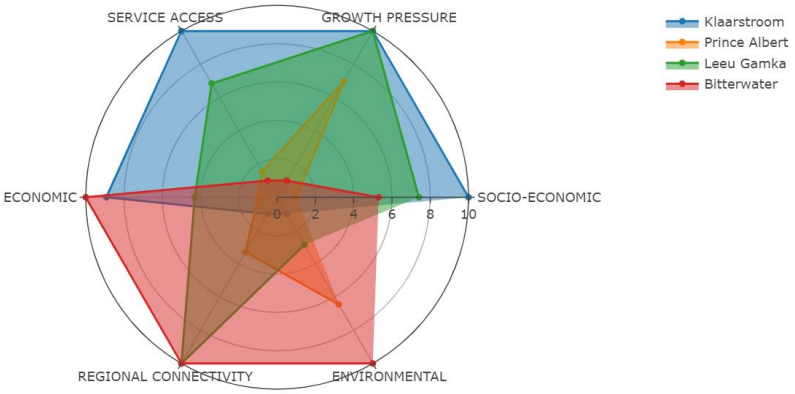


Figure 5.1: Settlement Vulnerability of PAM (2019)

Figures 5.2 to 5.4 show the hazard profiles for each town. The town of Prince Albert is considered least vulnerable to climate change, although still vulnerable in general (with considerable growth pressures) whilst Klaarstroom and Leeu-Gamka / Bitterwater have considerable vulnerabilities relating to service access, economic activity and connectivity.

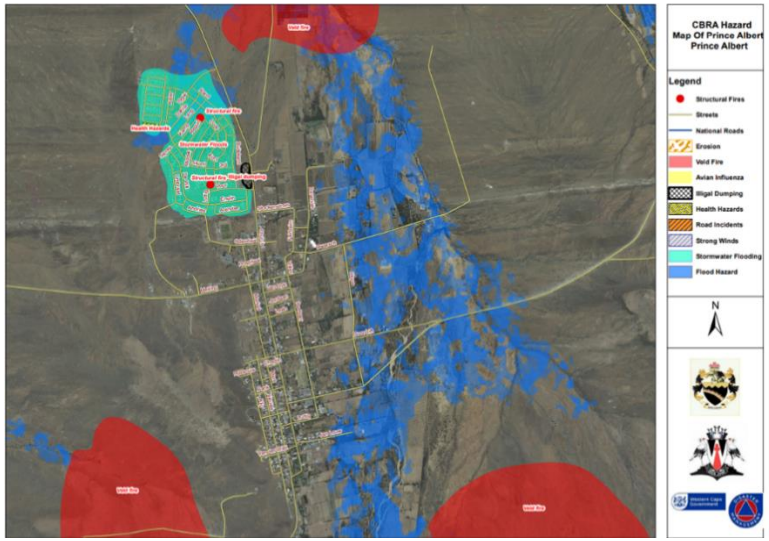


Figure 5.2: CBRA Hazard Profile for Prince Albert

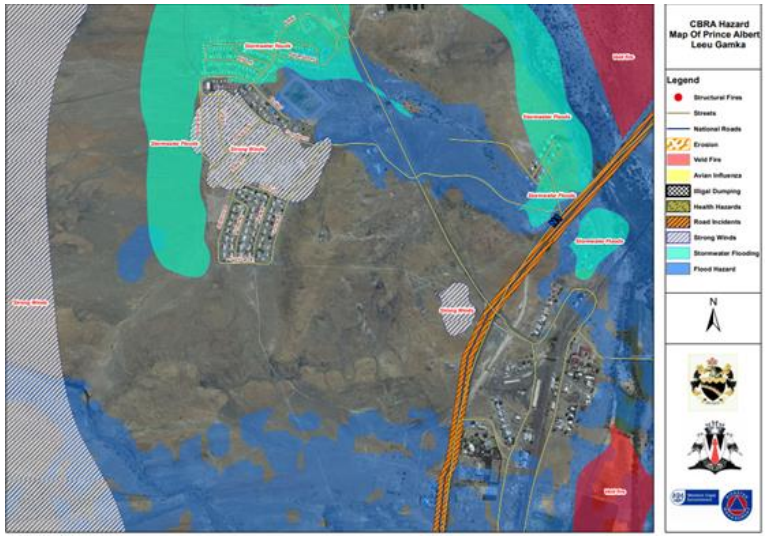


Figure 5.3: CBRA Hazard Profile fort Leeu Gamka

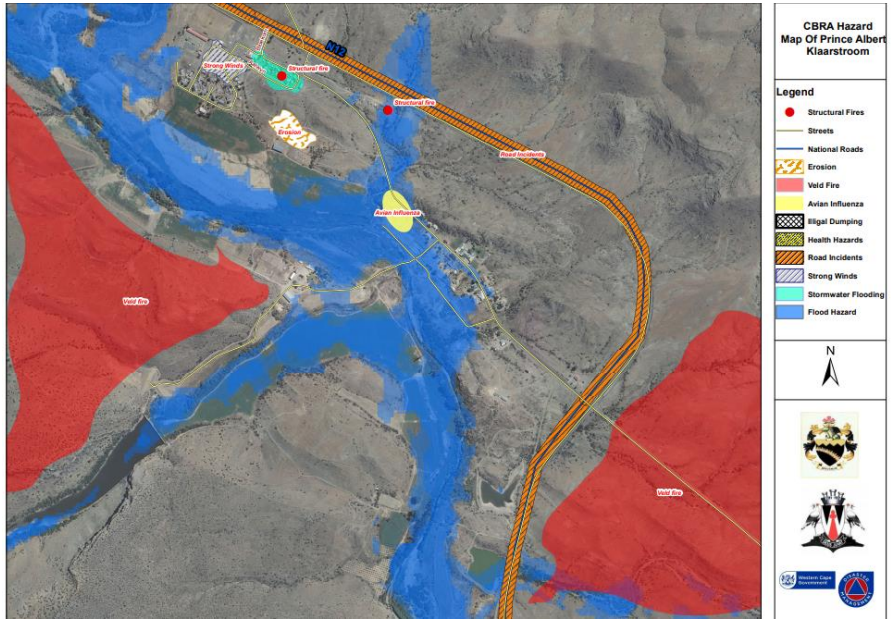


Figure 5.4: CBRA Hazard Profile fort Klaarstroom

The **Community Based Disaster Risk Assessment (CBRA)**, was done in November 2017 and held in Prince Albert, Leeu Gamka and Klaarstroom. The sessions were well attended. The following were key issues from the assessment:

5.1 FLOODING

5.1.1 Prince Albert

The following problems occur in Prince Albert Town:

- Problematic supercritical flowing stormwater. Channels are often too shallow and have sharp direction. Water continues its initial flow path into properties and onto the roads (Buitekant and Kronkel Weg);
- Ponding in Botterblom and Dahlia Streets;
- due to the topography and gradient, water generally runs down from the West;
- Prince Albert South relies on roads to drain the stormwater away;
- Church Street has a lot of open driveways and little or no curbs on the lower side of the road. During severe storms, stormwater bypasses the channels or furrows in Church Street and flows across the road into properties causing extensive flooding damage; and
- the flash flood in 2017 damaged Swartberg Pass and Meiringspoort was also closed to traffic for some time.

5.1.2 Klaarstroom

The following problems occur in Klaarstroom:

- Does not have sufficient capacity to convey stormwater away from the settlement. Some local flooding occurs due to supercritical flow – stormwater flows on Aalwyn Street into properties on other side of street (Bloekom Street);
- flooding is generally experienced during heavy rain periods and some summer months (Particularly January);
- the water runs down and ponds at the cemetery location. This also causes soil erosion and is a concern amongst residents;
- 40 informal structures have been built in the middle of drainage paths which is the cause for regular flooding in that area;
- the low-lying bridge indicated on the map is identified as a flood hazard;
- poor conditions, slopes and gradients of channels;
- poor drainage in open spaces between households;
- poor maintenance of existing stormwater infrastructure which cause blockages of inlets and outlets.

5.1.3 Leeu Gamka

The following problems occur in Leeu Gamka:

- Main storm water problems are the culverts in Aster Street;
- supercritical flow from the channels in the new housing development portion of the Leeu Gamka. Water is said to run down from the West in Botteblom Street and pond around area between Gnaap and Aalwyn Street;

- The storm water infrastructure at Leeu-Gamka Primary school fails to absorb heavy rain and ponding is also an occurrence;
- other streets where storm water flooding is an occurrence are: - Pepperboom Street; Gousblom Street; areas below Springbok Street; ambulance station area; the back area of the Police Station where a river line exists;
- there is also a concern regarding riverine flooding risk due to the two rivers passing Leeu-Gamka, namely the Koekemoers and Gamka Rivers respectively.

5.2 DROUGHT

The DoA, in collaboration with Agri Western Cape, have ringfenced R40 million for struggling farmers with drought schemes and animal feed donations. The local municipality's disaster risk manager and the DoA's sustainable resource manager (usually Landcare) assist the DoA in this regard. These drought schemes can only be in a payment form to the farmer's local cooperation and the farmer needs to apply with all relevant original documents to the DoA. In addition, to qualify for financial support, the farmer will have to make a financial contribution to the drought scheme.

5.3 WIND DAMAGE

5.3.1 Leeu Gamka

Leeu-Gamka lies mainly in an open plain, exposing most of the town to strong winds. Several structures have been damaged in the past, one of which was the local Primary School. There is a safety concern regarding this matter.

5.3.2 Klaarstroom

Wind damage occurs every few years (+- 5 years). It has caused structural damage in the past between Skool and Bloekom Roads.

5.4 VELD AND STRUCTURAL FIRES

5.4.1 Prince Albert

The main veld risk comes from the Swartberg Mountain and Pass; the last veld fire almost damaged the reservoir. The town only has a limited amount of fire trucks;

The Wastewater Treatment Works situated North of the town is a health risk should a wildfire occur in close proximity. Two structures burnt down in the past in Doringboom and Alwyn Roads.

5.4.2 Leeu Gamka

There is a veldfire risk along Koekemoers and Gamka River due to high fuel loads generated by alien invasive species Fluitjiesriet (*Phragmites australis*). A lack of Fire Services within the area is a massive problem. Response from Prince Albert is said to be very poor and the landfill site is also considered a fire risk.

5.4.3 Klaarstroom:

Areas that were damaged in the past include Witrivier (a farm in Klaarstroom).

5.5 EARTHQUAKES

Leeu Gamka has historically experienced smaller scale earthquakes, 2-2.5 on the Richter scale.

5.6 ROAD ACCIDENTS

The following issues have occurred:

- Kudu accidents along N12;
- highest accident rates on the N1, Leeu Gamka and Dwyka;
- the R407 and N12 also have high accident rates;
- the N1 stretch along Prince Albert Road has been dubbed the "road of death";

- pedestrian accidents at Leeu Gamka occur along the N1. Residents cross the N1 to draw cash at the Shell Garage ATM. Contributing factors include lack of street lighting and a lack of truck stops close by.

5.7 SEWERAGE

Sewerage blockage is an annual occurrence in Prince Albert North-End.

5.8 ELECTRICITY

Electricity supply disruption is a reality especially during severe storms and associated strong winds. This is a problem experienced throughout the municipality and was mentioned at all workshops. The cause of the problem is apparently aging infrastructure.

5.9 HEALTHCARE FACILITIES

5.9.1 Prince Albert

Service at the hospital and clinic is said to be good, however issues exist around the 'waiting period' at the reception. Women in labour are sent to Oudsthoorn. Another issue was raised around the lack of transportation services for the elderly and disabled.

5.9.2 Leeu Gamka

Staff at the clinic are under pressure. There's only one nurse who works until 3pm. This limits the number of people she can accommodate during working hours. A doctor is only present on Thursdays. For the rest of the week, residents need to travel 58km to Prince Albert of Beaufort-West to seek medical assistance. Issues have decreased after the construction of the ambulance station in the town.

5.10 EDUCATION FACILITIES

There is a need to establish a secondary school in Leeu-Gamka that will provide education to the learners of Prince Albert Road, Leeu-Gamka and Merweville. At present, children must be transported to Beaufort-West at huge cost to both government and parents. The vast travelling also undermines quality of life and increases the risk of road fatalities. It is understood that there is no funding to build an additional school building, but consideration should be given to build extra classrooms for the existing school and to accommodating secondary learners there.

The high cost of travel to and accommodation in educational facilities outside the boundaries of the municipality makes further education unaffordable. It encourages early drop-out in schools as students realise their parents will not be able to pay for further studies and they will be limited to first-entry jobs. This situation limits residents' employment and income generating opportunities as low skills levels imply low remuneration. Many of the young people who cannot afford the cost of higher education end up as participants in the Expanded Public Works Programme or Community Works Programme. This provide a safety net against poverty but leaves these people with no real potential of developing marketable skills in the employment sector.

6. SYNTHESIS OF REGIONAL ISSUES AND TRENDS EMANATING FROM THE STATUS QUO

6.1 REGIONAL ISSUES

The following are cross-cutting regional spatial issues identified in relation to the desired spatial policy outcomes. The issues are also highlighted in the composite map that follows (Figure 6.1).

6.1.1 Biodiversity, Extraction & Climate Change

- Critical Biodiversity Network, transport infrastructure network, water resources and agricultural resources of the region are threatened by the prospect of mineral resources extraction (both shale gas and uranium mining).
- The highest-rated risks in the Disaster Risk Register, due largely to an unstable climatic future and drought, are flash floods, fires, disruption of water supply and road accidents (N1 Leeu Gamka – PA Road);
- knock-on effects of climate change include increasingly poor soil nutrient retention, limited agri-potential, job shedding and reduced GDP in the primary sector, potential in-migration to towns and an exacerbation of existing conditions;
- a heavy reliance on groundwater abstraction and current usable groundwater potential is low. Currently there is no aquifer recharge study;

6.1.2 Human Settlements

- The 2019-2024 HSDG 5-year delivery plan shows no budget for housing in Prince Albert Municipality. There is competition from high order investment nodes like Beaufort West for housing;
- Beaufort West (Highest order), Prince Albert and Laingsburg are the primary regional service centres. However, the economy and people of Prince Albert Town are closer linked to Oudtshoorn and the neighbouring Garden Route District. These settlements need to **focus on infrastructure maintenance**, appropriate infrastructure expansion and gearing the settlements to experience a degree of population and economic growth, leveraging their economic assets, which in the case of Beaufort West and Laingsburg is their positioning along the N1. In the case of Prince Albert, this is its positioning at the foothills of the Swartberg Mountain Pass;
- the urban settlements of Leeu Gamka and Klaarstroom are **lower order settlements** that provide basic services and access to basic goods. Whilst these urban centres also suffer from socio-economic challenges, their growth potential is limited and capacity for expansion undesirable;
- accessibility is generally poor between settlements and higher order facilities;
- the Municipality's **sense of place, heritage and tourism assets** both in its landscape quality in the rural areas as well as its underutilised urban heritage potential can be undermined or eroded by poor development decisions and land use practices.

6.1.3 Infrastructure

- Infrastructure is ageing (WTWW and storm water);
- pedestrian pathways and public transport infrastructure within settlements are inadequate to accommodate the need;
- **waste and waste management** is a concern, with the need to explore regional or other sustainable waste solutions in dealing with the generation of waste;
- the **rail asset** of the region is underperforming and PA Road and Leeu-Gamka are not considered tourist stops.

6.1.4 Social, economic, financial and administrative

- The Prince Albert municipal area is forecast to have a **population growth** rate of 0.67% and a household growth rate of 1.7% per annum on average. The total population of Prince Albert is expected to add an additional 617 people between 2019 and 2024;
- **poverty levels**, unemployment, inequality, teenage pregnancy, domestic abuse, drug abuse, youth unemployment, high dropout rate and social grant reliance are all risks;
- more educated people tend to move to higher order investment nodes;

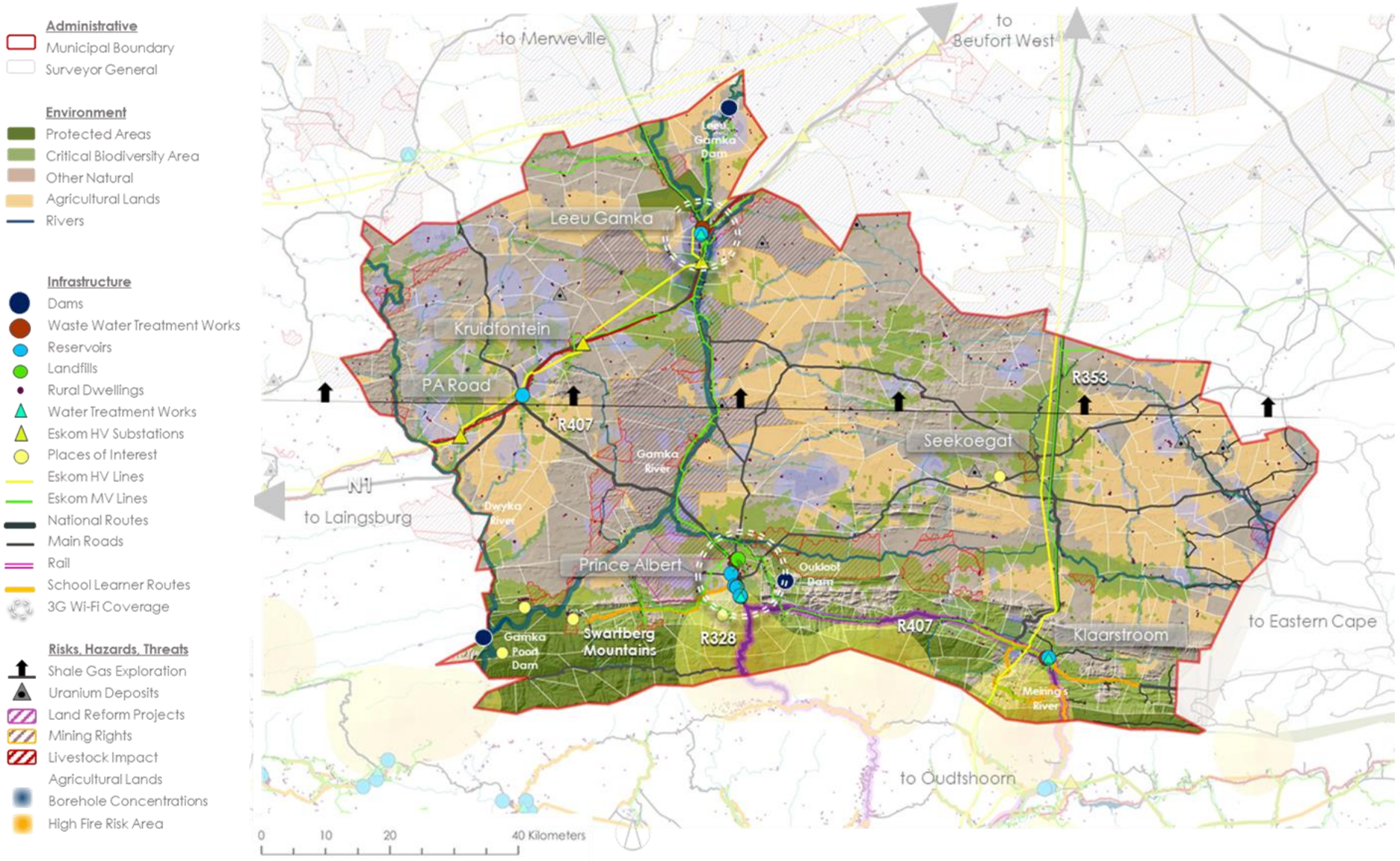


Figure 6.1: Map of PAM regional issues emanating from the SDF Status Quo

- the **financial sustainability** of Prince Albert Municipality is being eroded by government budget cuts at national and provincial levels. Maintenance backlogs in infrastructure are deepening, non-payment for services is increasing and many farms don't contribute to the municipal income base;
- Klaarstroom & Leeu-Gamka are supplied directly by ESKOM, impacting on municipal revenue collection;
- **COVID 19** Lockdown measures and subdued restrictions placed on the regional economy will impact municipal finances, creating lower than normal demand for basic services, an increase in the number of households that need to be subsidized with free basic services, and an increase in households that are unable to pay for property rates and services consumed;
- **South Africa's overall GDP** is expected to decline by at least 5.1% and up to 7.9% in 2020. This will lead to major setbacks in addressing poverty, unemployment and inequality;
- the number of houses up for sale increased in Prince Albert Town, from 119 to 140 between April and July 2020.

7. REGIONAL OPPORTUNITIES FROM THE SDF STATUS QUO

The opportunities are listed in the thirteen points below and illustrated spatially in Figure 7.1.

1. **Scenic and Heritage Assets, Conservation Areas, Game Farms** and **Agricultural Town Farms** within the municipality can be better leveraged to support tourism & eco-tourism, the green-economy, and job creation. All towns can enhance their heritage assets, main streets and entrances to the towns through appropriate urban design and urban renewal interventions.

2. The **stabilising population** growth rate means that government has an opportunity to attend to backlogs in the delivery of services and facilities.

3. The **primary and secondary sectors** of the economy are currently small and have significant scope for long term growth if these sectors become desirable for investors to expand operations therein. There is also opportunity to diversify the economy to the secondary and tertiary sectors.

4. Improve **education outcomes**, partly through improved teacher: student ratios and providing good quality foundational phase through to tertiary education opportunities. This could equip persons in the region to exploit the emerging opportunities that present themselves as the economy grows and diversifies towards a tertiary sector economy.

5. **Shale Gas Exploration and Uranium Mining** could present an opportunity for the municipality to stimulate economic growth and job creation.

6. **Agricultural beneficiation** and value-add can be enhanced, however the sector is vulnerable to drought, is currently shedding jobs and is generally underperforming.

7. **Renewable energy production** can be up scaled in the region and create downstream opportunities.

8. Focus on shared services, rationalisation and improved efficiencies such as regional or other sustainable waste solutions in dealing with the generation of waste.

9. Potential **Internet expansion** through SpaceX Star Link (this means rethinking the need for an online learning centre like the E-Centre. There is also scope to rethink around online financial transactions, communications and work from home and rural lifestyle offerings). The Star Link constellation will eventually comprise of 12 000 + Starlink satellites orbiting the earth. SpaceX intends to provide satellite internet connectivity to underserved areas of the planet, as well as to provide a competitively priced service to urban areas.

Figure 7.1: Map of PAM regional opportunities emanating from the SDF Status Quo

1. **Improved teacher: student ratios** and providing good quality foundational phase through to tertiary education opportunities could equip persons as the economy diversifies towards a tertiary sector which currently consists of wholesale and retail trade, catering and accommodation (637 jobs), community, social and personal services (660 jobs), general government (553 jobs), finance, insurance, real estate and business services (199 jobs) and transport, storage and communication (105) jobs.

2. Focus **spending on infrastructure maintenance** and repairs and if there is national investment in the existing road and rail systems, this will bring connectivity opportunities to Leeu Gamka and PA Road.

3. **Marketing** Prince Albert as a region for social distance friendly eco-tourism

4. **Upskilling** in areas of combatting weaknesses, such as firefighting, tourism and conservation.

8. CONCLUSION

This status quo report was first drafted in 2017/18 and then further updated in early 2020. Upon reading, some of the information will have become updated and will require updating when there is an SDF amendment.

In summary, the competitive advantage of the economy of Prince Albert Municipality is dependent on its natural resource base and the functioning of this economy is directly linked to the availability of water and the health of the ecological systems. Hence the protection and enhancement of the environment, specifically water is one of the main strategies of this MSDF. This must be accompanied by a transition to green infrastructure, renewable energy and a biomass economy in a way that does not impact on municipal financial sustainability.

PAM is struggling to maintain its existing infrastructure network, without considering expansion of this network. PAM is therefore prioritizing the current road and water network more cost-effectively. The aim is to protect and improve infrastructure, with a specific focus on water resources and roads and to secure collaboration on services with the District.

The overall impact of COVID-19 and the resultant lockdown on the economy of Prince Albert is likely to be quite harsh, with GVA contracting by 14.9 % by the end of the first year (year 1), while the CKDM economy will contract slightly less by 14.3% across the same period. Both economies will recover, but still register a net GVA loss of 5.6 % and 5.2% respectively for Prince Albert and the broader CKDM.

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