

## 4. MUNICIPAL ANALYSIS

### 4.1 INTRODUCTION

The status quo of the Municipality is analysed within the three overarching Spatial Themes as discussed in **subsection 3.2**, and as illustrated in the table below.

**Table 4.1: Spatial Themes and Analysis Categories**

	Built	Socio-Economic	Biophysical
<b>Themes and Elements</b>	<ul style="list-style-type: none"> <li>- Transport and movement systems</li> <li>- Engineering infrastructure</li> <li>- Settlement patterns</li> <li>- Housing and informality</li> <li>- Land availability: vacant, underutilised land and land with potential for redevelopment</li> <li>- Energy</li> </ul>	<ul style="list-style-type: none"> <li>- Economic trends</li> <li>- Population statistics</li> <li>- Income levels</li> <li>- Health statistics and facilities</li> <li>- Education statistics and facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Geology and soils</li> <li>- Topography and slopes</li> <li>- Climate</li> <li>- Vegetation and biodiversity</li> <li>- Water resources</li> <li>- Drainage</li> <li>- Climate change</li> <li>- Agriculture</li> <li>- Mining</li> </ul>

### 4.2 UNDERSTANDING THE BIOPHYSICAL ENVIRONMENT

#### 4.2.1 Geology and Soils

The geological area comprises of the Bokkeveld Group, which is predominantly made up of mudstones. After the Cape Supergroup had been folded into the

Cape Fold Mountains, these soft mudstones readily washed away from the mountain tops and only remain in the valleys. Here they form the fertile soils on which the vineyards and fruit orchards of the Western Cape flourish with the help of irrigation from the rivers that have their sources in the surrounding mountains.

A variety of soil types can be found within the TWKM area, with Glenrosa and Mispah soil types being the most dominant. Glenrosa soil is gravelly, has yellow topsoil, and with weakly weathered subsoil, it dries out fairly quickly. Mispah can generally be characterised as being shallow and rocky, which in turn is porous, meaning that this soil type does not retain water efficiently. Soils are a mix of predominantly shale-derived clays with some sandstone-derived sands and alluvial sand deposits from the Palmiet River. The clays predominantly support agriculture while the sandstone derived soils support fynbos.

#### 4.2.2 Topography and Slopes

The topography within the TWKM area can be described as a mixture of plains and hills, with patches of steep slopes and mountainous areas. The Riviersonderend Mountain range forms the northern municipal boundary and are undeveloped due to the steep slopes and rough terrain. In addition to this, the Kleinrivier Mountains has similar characteristics. This mountain range essentially forms part of the southern municipal border. The other predominant high-lying area is the Swartberg Mountains located in Caledon.

The farmlands situated between Caledon and Riviersonderend have a relatively gradual slope. In contrast, the area west of Caledon can be characterised by much deeper valleys with steeper slopes of which the bulk is made up of the Groenlandberg Nature Reserve. Mountain catchments in the study area include

the:

- Hottentots-Holland Mountain Catchment Area;
- Riviersonderend Mountain Catchment Area;
- Hawequas Mountain Catchment area.

#### 4.2.3 Climate

The prevailing Mediterranean climate is synonymous with wet winters and warm to hot, dry summers. This climate also allows for many outdoor activities prevalent within the Municipality that contribute to the tourism sector and an important role in the production of fruit for export from the TWKM region.

The majority of the rainfall occurs between the months of May and August. The areas surrounding the Groenlandberg Nature Reserve experience an increased amount of rainfall (Grabouw, Botrivier and Vyeboom farms with an average amount of 900 mm annually). In contrast, the eastern part of the municipal area (Riviersonderend) experiences less rainfall, with an average annual rainfall of 337 mm.

#### 4.2.4 Vegetation and Biodiversity

The TWKM area consists mainly of two broad vegetation types, namely Renosterveld and Fynbos. The following vegetation types are found within the Municipality (Mucina & Rutherford, 2006<sup>1</sup>):

1. Kogelberg Sandstone Fynbos (CR);
2. Overberg Sandstone Fynbos (CR);
3. South Sonderend Fynbos (LT);

4. Hawequas Sandstone Fynbos (VU);
5. Western Coastal Shale Band Vegetation (LT);
6. Boland Granite Fynbos (VU);
7. Elgin Shale Fynbos (CR);
8. Greyton Shale Fynbos (EN);
9. Western Rûens Shale Renosterveld (CR);
10. Central Rûens Shale Renosterveld (CR);
11. Rûens Silcrete Renosterveld (CR);
12. Cape Lowland Freshwater Wetlands (LT);
13. Cape Lowland Alluvial Vegetation (CR).

The sandstone fynbos vegetation types are located within the mountain ranges in the western, southern and northern parts of the Municipality, which include the Kogelberg, Hottentots Holland, Groenlandberg, Babylonstoring/Shaw's Mountain, Klein Rivier, Klein Swartberg and the Riviersonderend Mountains. This type of vegetation occurs in the sandy, acid soils derived from the Table Mountain Group sandstone, which are highly infertile. Due to the infertile soils and typically steep slopes, these vegetation types are not suitable for agriculture or urban development and therefore there are relatively high proportions of these vegetation types remaining.

The renosterveld vegetation types occur in the low lying areas within the Municipality, predominantly on shale derived soils. These soils are fertile and suitable for cultivation and as a result the majority of the renosterveld vegetation has been lost to agriculture, with only small fragments remaining typically on slopes which are too steep or rocky to cultivate. As a result, this vegetation type is highly threatened with the remaining fragments of very high conservation significance.

<sup>1</sup> Mucina, L. & Rutherford, M.C. (eds) 2006. The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African Biodiversity Institute, Pretoria.

<sup>1</sup> CR – Critically Endangered; EN – Endangered; VU – Vulnerable; LT – Least Threatened

The shale fynbos vegetation types occur in areas with an underlying shale substrate which receive higher rainfall than areas supporting renosterveld, resulting in greater leaching of the soils. It occurs in the Elgin Basin between the mountains and further east on the mountain foot slopes. It contains renosterveld elements but can be classified as fynbos due to the presence of characteristic dominant fynbos elements. The shale fynbos is similarly threatened, as with renosterveld, due to the fertile soils suitable for cultivation.

There are no national parks within the Municipality. There are however several provincial nature reserves managed by CapeNature within the Municipality, which constitute a large proportion of the mountainous areas of the municipal area. The provincial nature reserves are Houwhoek, Groenlandberg, Hottentots Holland, Theewaters and Riviersonderend. Supporting the provincial nature reserves are declared mountain catchment areas which occur on adjacent private land and are of importance in terms of ecosystem services, particularly water provision.

There are three municipal nature reserves, namely Caledon, Villiersdorp and Greyton, adjacent to the respective towns which protect important biodiversity. Much of the high priority areas for protecting remaining biodiversity in the lowlands are located on private land. Conservation on private land is implemented through the CapeNature stewardship programme, as well as related initiatives such as conservancies (e.g. Klein Swartberg and Groenlandberg) and easements with non-governmental organisations. Conservancies within the TWKM include:

- Theewaters Conservancy;
- Groenlandberg Conservancy;
- Klein Swartberg Conservancy;
- Akkedisberg Conservancy.

In line with the PSDF, the TWKM area has been delineated into Spatial Planning

Categories (SPCs). It must be noted that these SPCs do not represent development proposals and do not add or detract from development rights. The SPCs are based on the six Critical Biodiversity Areas (CBAs) and forms a tool for TWKM to assess the suitability of alternative rural land uses in the different SPCs, as well as the appropriate location, scale and scope of these uses. **Plans 4.1 and 4.2** illustrate the core CBAs and SPCs within TWKM. **Table 4.2** illustrates the alignment between CBAs and SPCs. **Table 4.3** provides the management objective which each CBA category aims to achieve. This table can be used as a guideline when assessing land use applications in rural areas.

**Table 4.2: Alignment of Spatial Planning Categories with Biodiversity Areas**

CBA <sup>1</sup> Category / SPC <sup>2</sup>	Protected Area	CBA 1 <sup>1</sup> (Terrestrial/Aquatic)	CBA 2 (Degraded)	ESA 1 <sup>2</sup> (Terrestrial/Aquatic)	ESA 2 (Restore) <sup>2</sup>	Other Natural Areas	No Natural Remaining
Core 1	■	■					
Core 2			■	■			
Buffer 1						■	
Buffer 2					■	■	
Agriculture							■
Settlement							■

**Table 4.3: Biodiversity Area Categories Management Objectives**

<sup>1</sup> CBA = Critical Biodiversity Area

<sup>2</sup> ESA = Ecological Support Area

Map Category	Definition	Desired Management Objective
<b>Protected Area</b>	Areas that are proclaimed as protected areas under national or provincial legislation.	Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. A benchmark for biodiversity.
<b>CBA 1</b>	Areas in a natural condition that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure.	Maintain in a natural or near natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.
<b>CBA 2</b>	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.	Maintain in a functional, natural or near-natural state, with no further loss of natural habitat. These areas should be rehabilitated.
<b>ESA 1</b>	Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.	Maintain in a functional, near natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.
<b>ESA 2</b>	Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.	Restore and/or manage to minimise impact on ecological infrastructure functioning; especially soil and water-related services.
<b>Other Natural Areas</b>	Areas that have not been identified as a priority in the current systematic biodiversity plan, but retain most of their natural character and perform a range of biodiversity and ecological infrastructure functions. Although they have not been prioritised for	Minimise 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.

Map Category	Definition	Desired Management Objective
	biodiversity, they are still an important part of the natural ecosystem.	
<b>No Natural Remaining</b>	Areas that have been modified by human activity to the extent that they are no longer natural, and do not contribute to biodiversity targets. These areas may still provide limited biodiversity and ecological infrastructure functions, even if they are never prioritised for conservation action.	Manage in a biodiversity-sensitive manner, aiming to maximise ecological functionality. Offers the most flexibility regarding potential land uses, but some authorisation may still be required for high impact land uses.

Source: SANBI: Western Cape Biodiversity Spatial Plan Handbook, 2017

#### 4.2.5 Water Resources

TWKM is made up of six catchment areas, namely the Palmiet River, Bot River, Theewaterskloof Dam, Sonderend River, Klein River and Sout River. These catchments fall within the jurisdiction of the Breede-Gouritz Catchment Management Agency.

A number of large surface water bodies are located within the TWKM area. This includes the Theewaterskloof Dam, the Eikenhof Dam, the Kogelberg Dam, the Bot River, the Palmiet River, the Swart River, the Sonderend River and the Klein River. Of particular importance is the Theewaterskloof Dam, which is the main water source for the City of Cape Town.

In terms of water use, approximately 60% of water is used for irrigation purposes in South Africa. This means that efficient water use measures should be investigated in order to mitigate the decrease thereof. It is also evident that alien plant species may contribute to the increased inefficient use and supply of water. The removal of invasive plant species could result in land that could be

utilised for farming purposes.

**Table 4.4: Annual Dam Levels in and Around TWKM (2018 – 2022)**

Dam	Capacity (ML)	2018 %	2019 %	2020 %	2021 %	2022 %
Berg River	130 010	94.3	73.9	74.6	74.8	79.0
Eikenhof	28 000	96.3	71.0	85.0	84.1	85.3
Elandskloof	11 500	92.0	89.5	87.7	76.2	68.1
Steenbras lower	33 517	74.5	51.4	66.4	68.4	72.9
Steenbras upper	31 767	71.4	70.0	97.9	51.0	93.2
Theewaterskloof	480 188	53.3	41.0	57.7	79.2	79.7

Water supply has become an increasingly vivid obstacle as various aspects influence the supply thereof. Therefore, it is proposed that alternative sources of water for the TWKM must be investigated in order to sustain future water demand.

The protection and preservation of water resources such as the Theewaterskloof Dam is beyond the responsibility of the TWKM. It is of provincial and national importance and should be prioritised likewise.

#### 4.2.6 Drainage

The TWKM is primarily drained by the Sonderend River, which generally flows in a west-to-east direction. The river's source is in the Hottentots-Holland Mountains and is fed by numerous tributaries draining the Riviersonderend Mountains.

The southern parts of TWKM are drained by the Palmiet, Bot and Klein Rivers; all of which generally drain in a north-to-south direction.

#### 4.2.7 Climate change

Climate change is likely to bring a combination of rising temperatures and reduced and erratic rainfall and therefore would have an impact on agriculture. The potential impact of climate change on water resources could also have an effect on agricultural practices.

One of the climate change threats in some parts of the Western Cape is the likelihood of floods with greater intensity and longer term impacts. There is likely to be increases in the severity and unpredictability of weather patterns. Flooding and storms are predicted which could have devastating effects on agricultural production.

In terms of adapting to climate change, the water system will need to be more robust and new / alternative sources of supply may need to be found. Increased skills will be required from water managers and longterm water projections are required.

#### 4.2.8 Agriculture

At a district scale, the local agricultural industries (apple, barley and canola production) not only contribute to the Gross Domestic Product per Region (GDPR) and employment of various sectors, but also to creating linkages between towns inside and outside the OBD.

In addition to providing food security, one of the OBD's largest fruit and vegetable export economies falls within the TWKM. Agriculture is an integral part of the TWKM economy and is the primary land use in the municipal area, with the western areas characterised by apple production and vast wheat and canola fields forming the central and eastern landscape of the municipal area.

Agriculture, forestry and fishing contributed 10.1% of the GDPR within the OBD in 2020 and is the second dominant economic sector in TWKM (contributing 15.2% to the TWKM GDPR in 2020). Similar to GDPR contribution, the agriculture, forestry and fishing sector provides the major source of

employment opportunities in OBD at 20.9% in 2020 (Municipal Economic Review and Outlook, MERO, 2022-2023).

However, the high dependence on the agriculture, forestry and fishing sector for employment impacts the local economy in terms of spending by households, as workers in this sector are typically low-skilled and have lower levels of income. Employment is also seasonal for many workers which impact the supply and demand for goods and services from other sectors.

The main commodities farmed in TWKM and related hectareage is tabled below.

**Table 4.5: Crop Classes and Related Hectareage**

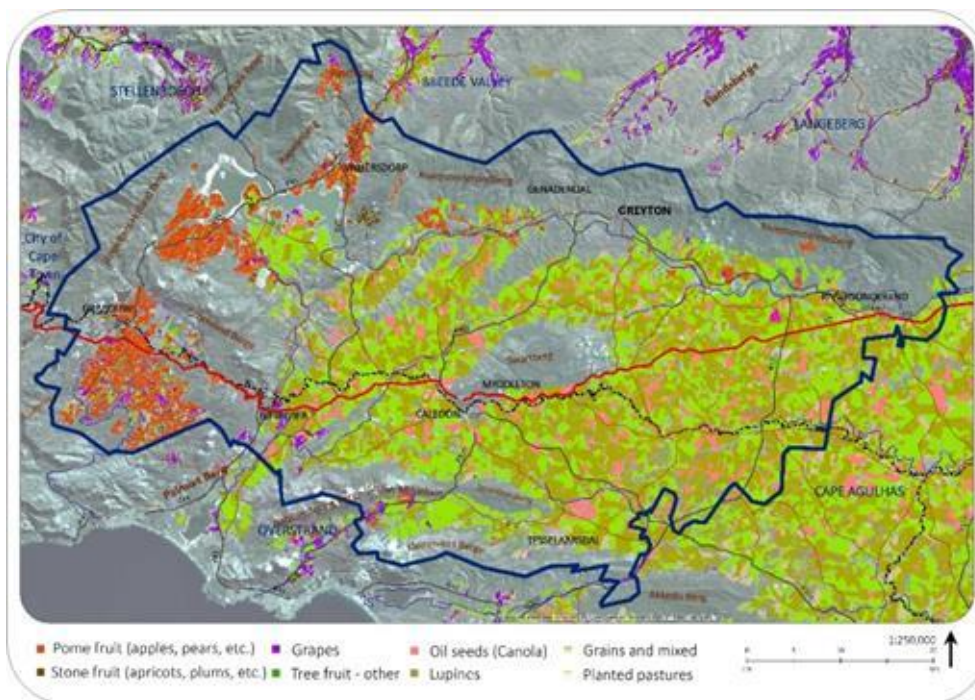
Commodity	Details	Hectares	%
Grazing	Fallow, lucerne, lupine, natural grazing, planted pastures perennial, small grain grazing, stubble, triticale	62 847.10	44.69
Cereals	Barley, maize, sorghum, wheat	48 742.33	34.66
Pome Fruit	Apples and pears	13 642.87	9.70
Vegetable Oil	Canola and sunflower	11 492.07	8.17
Grapes	Dried grapes, table grapes, wine grapes	1 828.65	1.30
Stone Fruit	Apricots, nectarines, plums, peaches	846.53	0.60
Fruit Other	Dates, figs, granadilla, guava, nuts, olives, persimmons, pomegranate, prickly pear	410.84	0.29
Vegetables	Artichokes, beetroot, potatoes, pumpkin, Brussel sprouts, corn, cauliflower, celery, chillies, tomatoes, onions, peas, etc.	295.25	0.21
Citrus/Sub-Tropical	Grapefruit, lemon, lime, naartjie, orange, mango, avocado	255.56	0.18
Flowers	Cape rush, lavender, pincushions, proteas, roses, herbs and coriander, other unknown	185.69	0.13

Commodity	Details	Hectares	%
Berries	Blackberries, blueberries, mulberries, raspberries, strawberries	83.64	0.06
<b>Total</b>		<b>140 630.5</b>	<b>100.0</b>

Source: <http://www.elsenburg.com/gis/apps/agristats/>

The majority of packstores / sheds are situated in and around Grabouw and Villiersdorp where pome and stone fruit crops are concentrated. The location of agri-processing plants correlates with the concentration of pome and stone fruit and produced products related to these fruits.

Other notable infrastructure includes the South African Breweries Malting processing plant situated in Caledon and the mushroom processing plants located in Botrivier. Grain silos are distributed across the landscape where grains are farmed.



**Figure 4.1: Distribution of Major Crops across TWKM**

#### 4.2.9 Mining

Mining is not one of the main economic sectors within the Municipality. There are however a few areas that are disturbed due to the sourcing of construction materials.

Precautionary measures must be put in place in order to manage the impact of this industry and to minimise the effect on the environment this could cause. For example, the source of construction materials should be situated as close to the development opportunities as possible. This minimises the impact on the transport network. River corridors and wetlands, including ephemeral pans, must be protected from urban, agricultural and mining activities. Special regard must be taken of conservation-worthy areas.

#### 4.2.10 Biophysical Environment: Theme Implications

- ✘ The remaining fragments of vegetation within critically endangered ecosystems should be protected and are of national importance. Similarly, further loss of natural habitat within endangered ecosystems should be avoided and every attempt should be made to minimise the further fragmentation of the remaining natural habitat.
- ✘ Development next to, or along water courses must be appropriate and must not jeopardise the sustainable water supply.
- ✘ The last drought has also highlighted the importance of developing additional water sources as well as the harvesting of rainwater, where appropriate.
- ✘ It is advisable for TWKM to adopt a conservative approach to follow regarding the management of natural resources. It is proposed that the following approach be adopted to mitigate and adapt to the impacts of climate change: encourage and support renewable energy generation at scale, develop integrated and sustainable settlements, improve inter and intra-regional accessibility, use regional infrastructure investment to leverage economic growth and diversify and strengthen the rural economy.
- ✘ High potential agriculture land should be protected and expanded on where appropriate.
- ✘ Agri-industrial activities should be supported in appropriate areas with regards to proximity to where the products being processed are cultivated, where the service network has capacity and where employment is available.
- ✘ Additional income generating measures should be supported on farms to supplement the farm's income, but without distracting from the primary agricultural activities.

### 4.3 UNDERSTANDING THE SOCIO-ECONOMIC ENVIRONMENT

The information in this section was sourced from the 2022-2023 Municipal Economic Review and Outlook (MERO), drafted by the Western Cape: Department of Economic Development and Tourism.

**Table 4.6: Theewaterskloof GDPR Performance per Sector, 2011 - 2020**

Sector	Contribution to GDPR (%) 2020	R Million Value 2020	Trend	Real GDPR Growth (%)
			2011 – 2020	2021 (estimate)
Primary Sector	15.2	1 316.2	1.7	7.2
Agriculture, forestry and fishing	15.2	1 310.5	1.7	7.3
Mining and quarrying	0.0	5.7	2.9	-13.2
Secondary Sector	21.7	2 107.8	1.2	6.4
Manufacturing	13.4	1 314.3	2.1	9.6
Electricity, gas and water	2.0	237.9	-1.7	2.7
Construction	6.3	555.6	0.5	0.7
Tertiary Sector	63.1	5 863.0	2.7	6.3
Wholesale and retail trade, catering and accommodation	15.1	1 495.5	1.6	8.3
Transport, storage and communication	7.8	714.5	0.9	5.5
Finance, insurance, real estate and business services	22.9	2 034.9	4.9	7.3
General government	8.3	759.5	2.0	-1.0
Community, social and personal services	9.0	858.6	2.0	8.0
<b>Total Theewaterskloof Municipality</b>	<b>100.0</b>	<b>9 287.0</b>	<b>2.1</b>	<b>6.5</b>

Source: Quantec Research, as contained in the MERO 2022-2023

The TWKM local economy is the most dominant local economy within the OBD, compared to Overstrand, Cape Agulhas and Swellendam municipalities; contributing 40.2% to the District's GDPR in 2020.

The TWKM municipal area's GDP was valued at R9.3 billion in 2020 and increased by 6.5 per cent in 2021. This positive growth of the municipal area's economy between 2020 and 2021 could indicate the start of recovery from the economic pressures brought on by the COVID-19 pandemic. The finance sector was the lead sector, contributing R2.0 billion to the GDP in 2020, followed by the trade sector with R1.5 billion and the manufacturing sector with a R1.3 billion contribution. It is forecast that the GDP will increase by 2.2% in 2022 and 1.8% in 2023.

**Table 4.7: GDP Contribution and Average Growth Rates in relation to the District and Province (2020)**

Contribution to GDP (%) 2020		Trend	Real GDP Growth (%)					
	2020	2011 – 2020	2017	2018	2019	2020	2021	2022
TWKM	40.2	2.1	2.6	2.4	-0.4	-4.8	6.5	2.2
ODM	100	1.4	1.7	1.8	-0.3	-5.7	5.5	2.6
Western Cape	-	1.0	0.9	1.6	0.1	-5.9	4.6	2.3

Source: Quantec Research, as contained in the MERO 2022-2023

The TWKM municipal area had a 2.1% annual GDP growth rate between 2011 and 2020, and a growth rate of 0.3% 2016 and 2020. The primary sector grew by 0.3% between 2016 and 2020, with the agriculture sector growing by 0.3% and the mining sector by 2.6%. The considerable increase of 12.8% in the agriculture sector in 2020 could be the result of improved weather conditions for agricultural activities and the increase in product prices.

The only sector that has contracted annually (on average) was the electricity, gas and water sector. Increased pressure on bulk infrastructure due to a lack of water and increased demand from household and commercial consumers have

added extra pressure on this sector, with the lack of funding available to address all needs.

As previously indicated in **Figure 4.1**, agricultural activities are the primary land use in the municipal area, with the western areas characterised by apple production, with vast wheat and canola fields forming the central and eastern landscape of the municipal area. In conjunction with having the largest local economy, TWKM also has the largest number of people employed in the OBD.

#### 4.3.1 Sectoral Linkages across the Overberg District

The main economic sectors that contribute to the OBD economy have interlinkages with each other, for example, the agricultural sector, which consists mainly of the barley, apples and canola industries, is well established and products are exported to other provinces and countries. It has linkages with the manufacturing sector regarding the processing of inputs or raw materials (i.e. apples, barley and canola) and the manufacturing of products (i.e. juice, canned foods, machinery, transport equipment, etc.). There are many alternating linkages between the various economic sectors in the OBD. These are the sectors which will negatively affect the economy if they had to disappear (i.e. canola, barley and apple production and all associated processing and tertiary sector support).

In addition, scenic routes link tourist destinations within the OBD (Refer to **Plan 4.3**). Tourism related development along these routes should be supported. However, development along these routes should be managed to ensure their scenic quality is protected.

#### 4.3.2 Agricultural, Forestry and Fishing Sub-sector

The agriculture sector contributed R2.4 billion to the economy of the OBD and R1.3 billion to the economy of the TWKM. The sector also employed 20.9% of the OBD population (25 234 workers) and 28.3% of the TWKM population (15 996 workers) in 2020 (MERO 2022-2023). **Table 4.8** presents the economic sectoral employment contribution for OBD and TWKM.

Backward linkages within the agriculture subsector include the activities of nurseries, who supply seedlings and young trees for expanding agricultural activities. Inputs such as fertiliser, packaging material and chemicals needed are available locally, although imported from the Cape Metro area. Farmers also require funding and insurance which forms part of the finance and business services sector. National and global impacts that have a positive or adverse impact on any facet of farming can therefore also influence the broader economy of the OBD and TWKM.

### 4.3.3 Manufacturing

Manufacturing in the OBD is mainly focused on food and beverage production. Manufacturing contributed R3.2 billion to the OBD economy and R1.3 billion to the TWKM economy. The sector also employed 7.9% of the total OBD population (9 569 workers) and 7.4% of the total TWKM population (4 194 workers) in 2020. The manufacturing of barley, apples and canola into beer, juice, canned fruit and canola oil, etc. are the main contributors to the manufacturing sector within the OBD. Wine production also takes place in the Elgin Valley. **Table 4.8** presents the economic sectoral employment contribution for OBD and TWKM.

These enterprises supply food and beverages nationally, which emphasises the importance of the agriculture sector, manufacturing sector and transport sector in the OBD. Manufacturers require a constant supply of electricity and water. If the manufacturing expands, additional industrial space is needed, highlighting the importance of spatial planning in the primary nodes of the OBD. Proper road infrastructure is needed to ensure that raw materials and finished products can be easily transported.

The wholesale and retail trade, catering and accommodation subsector (including informal trading) contributed R3.9 billion to the OBD local economy, with the main retail centres being in the TWKM area and the Overstrand area. This sector employed 22.4% of the total OBD population (27 037 workers) and 19.3% of the total TWKM population (10 929 workers) in 2020

(MERO 2022-2023).

The largest proportion of informal workers in this sector is in the TWKM area. This sector is a main economic sector as it provides goods to local businesses and households. General changes in the economy will therefore also impact this subsector; if unemployment increases, spending will decrease having a negative impact on the wholesale and retail trade subsectors.

Apples, barley, canola and products produced from them are also sold locally within the OBD as well as across South Africa. Local apples, barley, canola products that are produced within the OBD does not only contribute to the local wholesale and retail sector, but also to this sector in other provinces.

**Table 4.8: OBD and TWKM Employment per Sector (2020)**

Sector	Overberg District	TWKM
	% Contribution	% Contribution
Primary Sector	<b>20.9</b>	<b>28.3</b>
Agriculture, forestry and fishing	20.9	28.3
Mining and quarrying	0.0	0.0
Secondary Sector	<b>14.5</b>	<b>14.1</b>
Manufacturing	7.9	7.4
Electricity, gas and water	0.3	0.3
Construction	6.3	6.4
Tertiary Sector	<b>64.5</b>	<b>57.6</b>
Wholesale and retail trade, catering and accommodation	22.4	19.3
Transport, storage and communication	3.9	3.5

Sector	Overberg District	TWKM
	% Contribution	% Contribution
Finance, insurance, real estate and business services	17.2	15.5
General government	4.4	3.9
Community, social and personal services	16.6	15.3
<b>Total:</b>	<b>100</b>	<b>100</b>

Source: Quantec Research, as contained in the MERO 2020-2023

#### 4.3.4 Tourism

Tourism is not an economic sector on its own; however, the activities of tourists are captured in a variety of sectors, such as in the retail trade, catering and accommodation and the transport, storage and communication sectors. Tourists have a variety of needs such as accommodation, restaurants, vehicles and tours, creating opportunities for additional business development within the area to meet the needs of tourists.

According to the TWKM Informal Trading Management Framework (2017), the Municipality has not promoted enough of its attractions, notably the biodiversity and heritage offerings, for example:

- Dams are under-utilized attractions in the area due to limited public access and facilities;
- Birding opportunities are under-developed.
- The area offers a wealth of heritage resources, including:
  - Genadendal mission station with national monuments/heritage status;

- Botriver railway station, which is the first railway station to have been constructed outside of Cape Town;
  - several Old Cape buildings and structures of the Old Cape Wagon and Slave Route;
  - various museums at Villiersdorp, Caledon and Genadendal;
  - cultural experiences such as home-stays, community tours with local guides, storytelling, religious tourism and churches.
- Poor connections between the Genadendal offerings and the established tourism trade in Greyton or Elgin.

**Plan 4.3** illustrates the identified scenic routes and tourism destinations within TWKM. Proposed tourism destinations are the Botriver Railway Station Precinct, Caledon Vensterkloof Tourism Precinct and two Caledon entertainment precincts. Additional tourism development should be encouraged and supported to enhance this important sub-sector. One initiative would be to formulate a tourism strategy to link TWKM with the Hemel-en-Aarde Valley wine route to capitalise on this existing tourism area.

In addition, care should be taken to improve and conserve the aesthetic quality of the N2 National Road interface, which is the main route along which tourists move and which creates the tourists' perception of the quality of the area further afield from this route.

#### 4.3.5 Informal Trading

The informal trading situation in TWKM did not develop by design or by legal imperatives. In all towns of the world, poorer people are pressed by necessity to seek an income outside of formal businesses and outside of traditional employment.

Informal trading is a mechanism for survival and fulfils a gap that was left by previous planning that did not provide for spaces for economic activity in some

towns. Currently, the largest part of the informal economy within the region is considered to be house shops / spaza shops and home industries. This is most likely due to the fact that home owners have access to an asset (their home) from which to conduct a business with no additional charges for business rental.

The nature of such ventures is usually rudimentary and would generally consist of the sale of goods that may be disposed of quickly and personal services. This would include:

- prepared fast foods and fresh fish, vegetables and fruit;
- clothing, jewellery and craft items;
- home-prepared preserves, jams, herbs and convenience items;
- barbers and beauty salons.

Previous housing developments did not make provision for business opportunities. House shops and home industries arose as a convenience to the communities within which they operate.

There is the possibility that municipalities may provide community facilities that people find inappropriate and inconvenient to their unexpressed needs. Such facilities quickly fall into disuse. The Informal Trading Management Framework 2017 therefore did not set aside spaces for informal trading in towns. Instead of setting aside informal trading spaces, it could be proposed to make provision by giving some limited form of economic development rights onto the existing residential rights.

#### **4.3.6 Transport Sector**

The transportation of goods within, to and from the OBD contributed R1.8 billion to the local economy in 2020; this includes transporting people within the municipal area. In 2020 this subsector employed 3.9% of the total OBD population (4 691 workers) and 3.5% of the TWKM population (1 982 workers) (MERO 2020-2023).

The Cape Town Transport Corridor is the N2 National Road which passes through the main towns in the District. This route accommodates a large volume of heavy vehicle traffic, which require fuel and food which further supports the local retail trade sector, thereby being an injection for the local economy.

#### **4.3.7 Finance, Insurance, Real Estate and Business Service Sub-sector**

This sector contributed R6.0 billion to the economy of the OBD in 2020, with the sector employing 17.2% of the OBD population (20 792 workers) and 15.5% of the TWKM population (8 786 workers) in 2020.

This sector provides farmers, agricultural processors, households and other businesses with the following services:

- loans and banking;
- marketing;
- insurance;
- legal and accounting services;
- technical testing;
- export agents for fresh fruit, barley, canola and processed fruit, barley and canola.

The main business nodes of the OBD are therefore critical in sustaining this sector, which drives economic growth in the district.

## 4.4 THE POPULATION

### 4.4.1 Employment Growth

**Table 4.9** indicates the trend in employment growth within each economic sector in the TWKM between 2011 and 2020. Similar to GDP contribution, the economic sectors that contributed the most to employment in the TWKM in 2020 was the agriculture, forestry and fishing sector (28.3%) and the wholesale and retail trade, catering and accommodation sector (19.3%). The finance, insurance, real estate and business services and the community, social and personal services sectors also made a relatively large contribution to employment, collectively contributing 30.8% to local employment.

The high dependence on the agriculture, forestry and fishing sector for employment impacts the local economy in terms of spending by households as workers in this sector are typically low-skilled and earn lower levels of income. Employment is also seasonal for many workers which impact the supply and demand for goods and services from other sectors. Fortunately, the agriculture, forestry and fishing sector only lost 74 jobs between 2011 and 2020 (0.5% reduction).

**Table 4.9: TWKM Employment Growth per Sector, 2011 – 2020**

Sector	Contribution to Employment (%) 2020	Number of Jobs 2020	Trend (Number of Jobs)
			2011 – 2020
Primary Sector	28.3	16 003	-74
Agriculture, forestry and fishing	28.3	15 996	-74
Mining and quarrying	0.0	7	-1
Secondary Sector	14.1	7 982	183

Sector	Contribution to Employment (%) 2020	Number of Jobs 2020	Trend (Number of Jobs)
			2011 – 2020
Manufacturing	7.4	4 194	79
Electricity, gas and water	0.3	172	2
Construction	6.4	3 616	102
Tertiary Sector	57.6	32 530	701
Wholesale and retail trade, catering and accommodation	19.3	10 929	263
Transport, storage and communication	3.5	1 982	51
Finance, insurance, real estate and business services	15.5	8 786	295
General government	3.9	2 189	34
Community, social and personal services	15.3	8 644	59
<b>Total TWKM</b>	<b>100</b>	<b>56 515</b>	<b>809</b>

Source: Quantec Research, as contained in the MERO 2022-2023

### 4.4.2 Unemployment

The table below presents the unemployment trend for TWKM, ODM and the Province. Note that the data do not include individuals who were not actively looking for work. Including these would result in a much higher unemployment rate. The table shows that the unemployment rate has increased year-on-year since 2016, indicating that the number of employment seekers are increasing at a faster rate than the creation of employment opportunities within the Municipality, District and the Province. The steep rise in unemployment during

2020/2021 could be contributed to the negative impact the COVID-19 pandemic had on the economy.

The rising unemployment rate is contributing to the increasing number of indigent households who need to be supported with free basic services and subsidized housing.

**Table 4.10: Unemployment Rates, 2016 – 2021 (%)**

	2016	2017	2018	2019	2020	2021 estimate
TWKM	7.5	8.4	8.8	9.8	11.0	13.9
ODM	9.4	9.8	9.9	10.9	12.5	15.9
Western Cape	17.6	18.4	18.2	19.6	20.8	25.1

Source: Quantec Research, (e denotes estimate) as contained in the MERO 2020-2023

#### 4.4.3 Demographics

All municipalities in South Africa battle with the challenge of dated population statistics, which are not reflective of the current realities faced by municipalities. The only credible demography data are the Statistics South Africa's 2001 and 2011 Census data, which are outdated, as well as the most recent Mid-year Population Estimates conducted in 2018 (MYPE, 2018).

Accurate population projection figures, both at municipal and settlement level, is essential in order to adequately project for and cost for future housing, engineering and social infrastructure investments for all spheres of government.

The following sources were used as a base to conduct 10-year population projections for the TWKM area and individual towns:

- Census 2001;
- Census 2011;

- 2018 MYPE.

Due to the dated Census data, the following methodology was used to perform the 10-year population projections:

- i. Projections beyond 2022 is not based on estimates provided by StatsSA. The 2017 and 2018 MYPE population data were used as a base to estimate the 2022 population data per settlement by applying the historic growth rate and the same proportion rate each settlement had to the total TWKM population in 2018.
- ii. The average number of individuals per household for each settlement was calculated by dividing each settlement's total population (2018) by the number of households (2018). It was assumed that the average number of individuals per household will remain constant in the next 10-year period.
- iii. The MERO 2022-2023 determined that the TWKM will have an average annual population growth rate of 1.5% for the municipal area. This average annual growth rate is used for the projections. Note that the Longterm Financial Plan includes an average growth rate of 1.2%. The MERO 1.5% rate is however considered more appropriate to the current situation.
- iv. Based on recent developments and population growth experienced in TWKM, it can be argued that each settlement in TWKM will however not experience the same growth rate. Therefore, each settlement has been allocated a unique population growth rate, based on past growth rates of each settlement (e.g. Grabouw, Caledon and Villiersdorp have been allocated a higher growth rate than Botrivier, Rivieronsderend, Greyton, and Genadendal). The allocated individual growth rates add up to a total annual population growth of 1.5% for the TWKM area.
- v. It is assumed that the rural population will remain relatively constant, as urbanisation and growth in these areas balances each other out.

Through the above methodology, the current (2023) population within the TWKM is estimated at 125 911 (Refer to **Table 4.11**). The population distribution is illustrated in more detail in the town analysis for each settlement in **Chapters 6 to 13**.

It is acknowledged that these population figures could be lower than the actual population per town, especially in Grabouw and Villiersdorp, as noted by certain municipal officials. The official StatsSA, MYPE and MERO data were however used.

**Table 4.11: Population Statistics and Projections**

	Annual Growth Rate (2018 to 2033)	Number of People per Household	2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
			2023 Population	2023 Households	2024 Population	2024 Households	2025 Population	2025 Households	2026 Population	2026 Households	2027 Population	2027 Households	2028 Population	2028 Households	2029 Population	2029 Households	2030 Population	2030 Households	2031 Population	2031 Households	2032 Population	2032 Households	2033 Population	2033 Households
Botrivier	1,0	3,2	6 667	2 104	6 734	2 125	6 801	2 146	6 869	2 168	6 938	2 190	7 007	2 211	7 077	2 234	7 148	2 256	7 219	2 278	7 292	2 301	7 365	2 324
Caledon	2,6	3,6	17 261	4 761	17 769	4 901	18 293	5 045	18 831	5 194	19 386	5 347	19 958	5 504	20 546	5 666	21 151	5 833	21 775	6 005	22 417	6 181	23 078	6 363
Caledon	3,0	3,6	16 081	4 414	16 563	4 546	17 060	4 682	17 572	4 823	18 099	4 968	18 642	5 117	19 201	5 270	19 777	5 428	20 370	5 591	20 982	5 759	21 611	5 932
Middleton	2,2	3,4	1 180	347	1 206	355	1 233	363	1 260	371	1 287	379	1 316	387	1 345	396	1 374	404	1 405	413	1 435	422	1 467	432
Genadendal	0,5	3,6	6 824	1 873	6 859	1 882	6 893	1 891	6 927	1 901	6 962	1 910	6 997	1 920	7 032	1 930	7 067	1 939	7 102	1 949	7 138	1 959	7 173	1 968
Grabouw	3,0	3,7	40 263	10 884	41 097	11 117	41 949	11 356	42 819	11 600	43 709	11 850	44 618	12 106	45 547	12 367	46 496	12 635	47 466	12 909	48 458	13 189	49 472	13 476
Grabouw	2,0	3,8	37 105	9 846	37 847	10 043	38 604	10 244	39 376	10 448	40 163	10 657	40 966	10 871	41 786	11 088	42 622	11 310	43 474	11 536	44 343	11 767	45 230	12 002
Pine North extra 1	4,0	2,3	621	270	646	281	672	292	699	304	727	316	756	328	786	341	817	355	850	369	884	384	919	399
Pine North extra 2	4,0	2,3	445	194	463	201	482	209	501	218	521	227	542	236	563	245	586	255	609	265	634	276	659	287
Iraq Informal Settlement	4,0	2,3	938	408	975	424	1 014	441	1 055	459	1 097	477	1 141	496	1 187	516	1 234	537	1 283	558	1 335	580	1 388	604
Elgin	1,0	6,9	1 154	167	1 166	168	1 177	170	1 189	172	1 201	173	1 213	175	1 225	177	1 237	179	1 250	180	1 262	182	1 275	184
Greyton	1,0	2,9	3 367	1 170	3 400	1 181	3 435	1 193	3 469	1 205	3 504	1 217	3 539	1 229	3 574	1 242	3 610	1 254	3 646	1 266	3 682	1 279	3 719	1 292
Riviersonderend	1,5	3,1	6 384	2 067	6 479	2 098	6 577	2 129	6 675	2 161	6 775	2 194	6 877	2 227	6 980	2 260	7 085	2 294	7 191	2 328	7 299	2 363	7 408	2 399
Villiersdorp	2,5	2,6	12 878	5 045	13 081	5 126	13 289	5 209	13 499	5 293	13 713	5 378	13 931	5 465	14 152	5 553	14 377	5 643	14 605	5 734	14 838	5 827	15 074	5 922
Villiersdorp	1,5	2,6	12 176	4 681	12 358	4 751	12 544	4 823	12 732	4 895	12 923	4 968	13 117	5 043	13 313	5 118	13 513	5 195	13 716	5 273	13 922	5 352	14 130	5 433
Villiersdorp ext.	3,0	1,9	553	294	569	303	586	312	604	321	622	331	641	341	660	351	680	361	700	372	721	383	743	395
Dennehof	3,0	2,1	149	70	154	72	159	75	163	77	168	79	173	81	178	84	184	86	189	89	195	92	201	94
Theewaterskloof Rural	0,0	5,1	32 267	6 303	32 380	6 325	32 482	6 345	32 572	6 362	32 650	6 378	32 716	6 391	32 769	6 401	32 808	6 409	32 832	6 413	32 842	6 415	32 835	6 414
Theewaterskloof Urban	1,5		93 643	27 903	95 419	28 431	97 235	28 970	99 090	29 521	100 987	30 085	102 925	30 662	104 907	31 251	106 934	31 853	109 005	32 470	111 123	33 100	113 289	33 744
WC031: Theewaterskloof	1,5		125 911	34 206	127 799	34 756	129 716	35 315	131 662	35 884	133 637	36 463	135 642	37 052	137 676	37 652	139 741	38 262	141 838	38 883	143 965	39 515	146 125	40 158

#### 4.4.4 Household Income and Poverty Levels

The annual income for households living within the TWKM area is divided into three categories, i.e. low, middle and high income brackets. The following table presents the number of people per income bracket living in the TWKM (2017), which represents the latest available data. The table also shows the projected (2033) number of people in each income bracket. As an income trend could not be identified, the same percentage of the total population is used.

**Table 4.12: Household Income**

Income Range (2020)		TWKM		
		%	People (2017)	People (2033)
Low Income	No income	11.8	14 812	17 249
	R1 – R6 327	2.0	2 586	2 923
	R6 328 – R12 653	3.4	4 232	5 261
	R12 654 – R25 306	17.3	17 163	25 280
	R25 307 – R50 613	23.1	24 922	33 755
Middle Income	R50 614 – R101 225	19.4	21 160	28 348
	R101 226 – R202 450	11.7	15 047	17 097
	R202 451 – R404 901	6.8	10 463	9 937
High Income	R404 902 – R809 802	3.3	5 055	4 822
	R809 803 – R1 619 604	0.9	1 528	1 315
	R1 619 605 – R3 239 208	0.1	353	146
	R3 239 209 or more	0.2	235	292
<b>Total:</b>		<b>100.0</b>	<b>117 558</b>	<b>146 125</b>

Source: TWKM SEP 2016 (Provincial Treasury)

The table shows that approximately 57.6% of households in TWKM fall within the low income bracket, of which 11.8% have no income.

An important aspect for TWKM revenue is the number of active tax payers within the municipal area who can contribute to the rates base. As is shown in **Table 4.13**, a total of 7 822 taxpayers were registered in 2019 and 8 724 were registered in 2020.

**Table 4.13: Individual Taxpayers**

Municipal Area	Number of Tax Payers		Average Monthly Taxable Income	
	2019	2020	2019	2020
TWKM	7 822	8 724	R22 935	R21 881

Source: Quantec Research, as contained in the MERO 2020-2023

The following table lists the proportion of the population of the TWKM that fall below the upper-bound poverty line<sup>3</sup> (UBPL). This is an important consideration for the demand for subsidised housing and other government grants.

**Table 4.14: Proportion of Individuals below the UBPL**

Municipal Area	2015	2016	2017	2018	2019	2020
TWKM	54.7%	54.7%	54.6%	54.9%	54.8%	56.5%

Source: Quantec Research, as contained in the MERO 2020-2023

<sup>3</sup> Upper-bound poverty line is used as an indicator for tracking child poverty, as this is linked to the minimum requirement for basic nutrition, as well as other basic needs such as clothing and shelter. In other words, this is the only poverty line that meets the minimum requirement for children's basic needs.

#### 4.4.5 Education Statistics

According to the IDP (2023), 29.8% of the total adult population had an educational achievement of matric and higher in 2018, while 3.7% has no schooling.

The retention rate for learners at Grades 10 to 12 in schools within TWKM was recorded at 74.6% in 2021.

**Table 4.15: Education Levels of Population in TWKM in relation to the OBD (2018)**

Education Level	Number	% of TWKM Population
No schooling	2 930	3.7
Grade 0 – 2	1 270	1.6
Grade 3 – 6	10 100	12.6
Grade 7 – 9	23 400	29.3
Grade 10 – 11	18 300	22.9
Certificate/ diploma without matric	143	0.2
Matric only	17 900	22.4
Matric certificate/ diploma	3 140	3.9
Matric bachelors degree	1 890	2.4
Matric Post Grad Degree	878	1.1

Source: TWKM IDP 2023

#### 4.4.6 Learner Transport

In 2019 the TWKM, 39 learner transport routes served 23 schools, transporting a total of 3 042 learners.

The provision of public transport should ideally be planned and provided on a

district level. It would therefore be beneficial to explore the establishment of an integrated transport system in the ODM, which will not only provide learners with access to schools via a subsidized transport system, but could also lead to affordable mobility of the economically active section of the ODM community to economic opportunity in the towns where most of the job opportunities are being created.

#### 4.4.7 Health Statistics

The information below was sourced from the Western Cape Government Socio-Economic Profile (SEP) 2021 for the TWKM, which is considered the latest information.

##### (i) HIV/AIDS and tuberculosis

- TWKM's total registered patients that received antiretroviral treatment in 2020/2021 was 5 383 patients, which is a decrease from the recorded 5 587 patients in 2019/2020.
- The number of new antiretroviral patients decreased from 648 in 2019/2020 to 469 in 2020/2021.
- The TWKM had 10 antiretroviral treatment facilities.
- TWKM experienced a decline in tuberculosis cases from 1 852 patients in 2019/2020 to 1 458 patients in 2020/2021.

##### (ii) Child Health

- Immunisation rates in the TWKM area was 91.2% in 2020/2021, having increased from 84.6% 2019/2020.
- The malnutrition rate for children under five years (per 100 000) in the TWKM area decreased from 4.5 in 2019/2020 to 1.8 in 2020/2021.
- Neonatal mortality rate (per 1 000 births) in the TWKM area decreased from 4.5 in 2019/2020 to 3.6 in 2020/2021.

- In addition, the low-birth-weight indicator for the TWKM area decreased from 14.0% in 2019/20 to 11.3% in 2020/21

### (iii) Maternal Health

- Of concern is that the maternal mortality rate in the TWKM area has increased substantially from zero deaths per 100 000 in 2019/2020 to 51.6 in 2020/2021.
- The delivery rate to women under 20 years in the TWKM area was recorded at 16.5%.
- The termination of pregnancy rate remained constants at 0.6 between 2019/2020 and 2020/2021.

### (iv) Emergency Medical Services

- Access to emergency medical services is important for rural citizens due to far rural distances between towns.
- Combined with the relatively lower population per square kilometre in rural areas, ambulance coverage is greater in rural areas in order to maintain adequate coverage for rural communities.
- Provision of more operational ambulances can provide greater coverage of emergency medical services. TWKM had 1 ambulance per 10 000 inhabitants in 2020/2021, which is the same as the district average.

### (v) Existing Health, Education and Other Social Infrastructure

The Social Infrastructure Accessibility Study for TWKM was prepared by the Department of Transport and Public Work's Directorate: Infrastructure Policies and Strategies in 2018.

The study provides an overview of existing social infrastructure requirements, planned infrastructure delivery and identifies those facilities required to meet

the population needs by 2033, which support the resolution of a range of developmental challenges facing the Municipality. The study findings seek to guide future planning of the provincial social sector departments and the Municipality's social services provision planning.

The analysis from this study has been incorporated into the town level analysis which follows in **Chapters 6 to 13**.

#### 4.4.8 Socio-Economic Environment: Theme Implications

- ★ The TWKM is the most dominant local economy in the OBD, with the tertiary sectors contributing the largest proportion of the GDP. This, combined with a relatively qualified work force, would enable economic and urban growth within TWKM with the necessary public and private investment.
- ★ The SDF must include sufficient available and strategically located land for the development of economic generating activities, as well as streamlining the statutory processes to achieve development rights.
- ★ The SDF must ensure sectoral linkages between the towns within the TWKM to strengthen the overall and individual town's economic power.
- ★ The ageing population and increased unemployment levels will increase the pressure on social grants and public facilities. Combined with the projected population growth, the demand for social facilities will increase. The SDF must address the estimated need for additional social infrastructure and ensure available land and public funding.

## 4.5 UNDERSTANDING THE BUILT ENVIRONMENT

### 4.5.1 Transportation Network

Information for this section was sourced from the Local Integrated Transport Plan for TWKM (ITP, 2016 which is still the latest ITP), as well as from recent inputs from the South African National Roads Agency (SANRAL). Refer to **Plan 4.4** for the main transportation network within the TWKM.

#### (i) The N2 National Road and SANRAL

The N2 National Road is the primary road-based link running through the TWKM, representing 8% of the road network within TWKM. The national road network is the responsibility of SANRAL, who has a mandate to finance, manage and maintain the national road network.

SANRAL indicated that the following projects have been designed for TWKM:

- The western Botrivier access road off the N2 (gravel road) will be closed and an underpass will be provided.
- The only access to Botrivier will be via the existing interchange and will be upgraded.
- Internal roads within Botrivier will be built parallel to the railway line.
- The toll project (Botrivier) is cancelled, but the design is still fixed.

Committed SANRAL projects include:

- special Maintenance between Gordon's Bay T-junction and Houw Hoek Pass;
- improvement between Caledon and Riviersonderend;
- periodic maintenance between Riviersonderend and Swellendam.

Planned SANRAL projects are:

- ad Hoc maintenance between Botrivier and Caledon;
- new internal roads to be designed for Botrivier.

#### (ii) Traffic Volumes along the N2

The TWKM has the highest traffic volumes out of the four local municipalities within the ODM. The main route sections with the highest Average Annual Daily Traffic (AADT) volumes and Annual Average Daily Truck Traffic (AADTT) volumes for the N2 National Road are listed in **Table 4.16** below.

The highest AADT in the TWKM is found on the N2 section between Gordon's Bay and Grabouw with 12 500 vehicles per day, with around 9% of the traffic being heavy vehicles. Some of the high demand for the N2 before Grabouw can be attributed to the high traffic volumes to and from Hermanus. Traffic volumes between Caledon and Swellendam are around 3 500 vehicles per day.

**Table 4.16: Traffic Volumes along the N2**

Road Description	Length (km)	AADT <sup>1</sup>	AADTT <sup>2</sup>	% Heavy Vehicles
N2 Sir Lowry's Pass	11.2	16 207	1 485	9.2
N2 Grabouw - Botrivier	29.2	12 500	1 135	9.0
N2 Botrivier - Caledon	54.3	7 500	715	9.6
N2 Caledon - Riviersonderend	24.2	3 100	400	12.9

<sup>1</sup> Annual Average Daily Traffic

<sup>2</sup> Annual Average Daily Truck Traffic

Source: SANRAL CTP 2013 yearbook as contained in the Draft Theewaterskloof ITP (2016)

#### (iii) Provincial Roads

Provincial roads are classified into four categories according to their function

namely trunk roads, main roads, divisional roads and minor roads. These secondary and tertiary roads cater mainly for intra-provincial travel and are largely the responsibility of the provincial government. The main provincial roads within the TWKM are the R43 (Villiersdorp-Botrivier); R45 and R321 (Grabouw-Villiersdorp); R406 (Caledon-Greyton-Riviersonderend) and R316 (Caledon to Napier).

#### (iv) Traffic Volumes on Provincial Roads

The highest AADT along the TWKM provincial road network is found on the R43 between Hawston and Botrivier, the bulk representing traffic to Hermanus. Refer to **Table 4.17** below.

**Table 4.17: Traffic Volumes on Provincial Roads**

Route	Road Link Description	AADT <sup>1</sup>	AADTT <sup>2</sup>	% Heavy Vehicles
R43	Hawston - Botrivier	9 100	700	7.7
R44	Pringle Bay - Botrivier	4 500	200	4.4
R316	Caledon - Napier	2 500	250	10.0
R321	Grabouw - Villiersdorp	2 500	400	16.0
R43	Caledon - Villiersdorp	2 200	350	15.9
R43	Worcester – Villiersdorp	1 300	150	11.5
R406	Caledon - Greyton	1 100	100	9.0

<sup>1</sup> Annual Average Daily Traffic

<sup>2</sup> Annual Average Daily Truck Traffic

Source: WCG RNIS, January 2015 as contained in the Draft Theewaterskloof ITP (2016)

#### 4.5.2 Freight Transport

Freight transport is the physical process of transporting commodities and

merchandise goods and cargo for commercial purposes. The movement of freight is fundamental to almost all economic activity.

There are two main freight routes within the ODM. Firstly, the N2 National Road which transports freight along the east-west axis along the coast of South Africa, primarily between East London and Cape Town. The second freight corridor within the ODM, but outside of TWKM, is the Worcester-Swellendam link along the R60 and railway line.

More than 95% of all freight in South Africa is moved via road. Transnet Freight Rail also previously confirmed that TFR does not foresee any rail network improvements over the next 20 years to accommodate freight movement. The existing rail network is deemed adequate to accommodate the expected increase in rail freight in the next 20 years.

The negative effect of a high proportion of heavy vehicles on provincial and national roads is the slowing of traffic, causing hazardous situations.

#### 4.5.3 Public Transport

The local public transport services in TWKM enable people to access destinations which cannot be reached on foot or by other modes of non-motorised transport (NMT). These destinations include essential services or activities such as places of employment, shops, government services, hospitals, clinics and schools.

TWKM comprises of a few small towns and low-density settlements. Most of these settlements are linked to the towns of Caledon and Grabouw, which serve as the main service centres and public transport hubs in TWKM.

Public transport accounts for approximately 18% of total trips in TWKM, while 46% walk and 36% use private vehicles to reach their destinations. This can be as a result of the big difference in income levels within the Municipality.

Currently, Minibus Taxis (MBT) is the dominant public transport mode for both

commuter and long-distance services. Population densities are relatively low in TWKM and this reduces the cost effectiveness of bus services. Most bus services that operate in TWKM are for learners, forming part of the Department of Education’s contracted services. There are limited scheduled long distance bus services and no commuter rail services exist in TWKM. A breakdown of public transport services operating in TWKM is contained in the table below.

**Table 4.18: Description of Modes of Public Transport Services in TWKM**

Mode	Type of Trips
MBT	Commuter, learner, health, long distance
Bus	Learner transport, affordable and luxury long distance coaches
Commuter Rail	None

According to the ITP, public transport expenditure in TWKM constituted on average approximately 17% of households’ monthly income, which is most likely due to longer travel distances in the municipal area, making public transport costs relatively high in TWKM.

#### (i) Minibus Taxi Operations

The MBT is the dominant public transport mode in TWKM primarily due to its flexibility and ability to adapt to different passenger demands between towns and more remote rural areas. MBTs provide unscheduled public transport services where vehicles can be hailed or asked to stop to allow passengers to exit at any point on their route.

MBT services operating from the towns in the ODM are administered by several MBT associations based in larger towns in the ODM. There are three taxi associations in TWKM namely Overberg Taxi Association in Caledon, Grabouw Taxi Association in Grabouw and the Villiersdorp Taxi Association in Villiersdorp.

#### (ii) Minibus Taxi Routes and Ranks

TWKM has one formalised MBT rank situated in Grabouw along Oudebrug Street. No formal taxi rank exists in Villiersdorp or Caledon. Generally, MBTs utilise on-street parking bays or parking lots at retail stores. The identification of these rank locations was based on discussions with MBT association representatives. There are four informal MBT ranks that operate within TWKM, two of which are located in the towns of Caledon and two located in Villiersdorp. MBT services are limited in TWKM with 17 routes operating from the town of Caledon, Grabouw and Villiersdorp to surrounding areas such as Roodakke, Slangpark, Uitsig, Bergsig and Myddleton.

Surveys undertaken for the ITP showed that limited local Grabouw routes, i.e. from town to surrounding low income residential areas such as Pine View, Melrose, Council and Roodakke and to surrounding towns i.e. Vyeboom and Villiersdorp, are operational during weekdays.

Similarly, the surveys also show limited weekday service for local routes from Villiersdorp and Caledon, while other services in and to surrounding towns were more operational on weekends. The highest demand for MBTs occurs on Saturdays, especially at the end of the month. The longer distance MBT service is to Bellville, Somerset West and Khayelitsha.

Typically, a route is linked to a particular informal rank or departure point. MBT movements in and out of the towns in TWKM, as observed from rank surveys, are summarised in the table below. The table shows that TWKM has an active public transport network with a number of longer distance or regional services to towns in surrounding local municipalities, as well as more localised services within TWKM. Grabouw and Villiersdorp serve as the transport hubs in TWKM with most of the routes originating or terminating in these towns.

Most of the towns or settlements in TWKM, such as Caledon and Villiersdorp, tend to be small with predominantly low income households. Most daily activities within the town can usually be accomplished on foot or bicycle which

impacts the demand and affordability of motorised travel in these smaller towns. However, the distances between towns tend to be farther, approximately 15 to 30 km, making motorised transport essential for these types of trips.

**Table 4.19: Destination Points of Taxi Services**

Origin	Local Destinations	Locations Outside TWKM
Caledon	Uitsig/ Bergsig and Chickama	-
	Greyton/Genadendal	
Villiersdorp	Goniwe Park	Franschhoek
	Ellisdrome	Worcester
	Kamp	Bellville
Grabouw	Farms	Kleinmond
	Caledon	Khayelitsha
	Council/ Roodakke/ Pineview	Somerset West
	Vyeboom/ Villiersdorp	-

### (iii) Commuter Bus Services

The commuter bus services in TWKM operate from Grabouw. These buses mainly serve the farming communities around Grabouw.

### (iv) Long Distance Bus Services

Commercial bus services that operate through TWKM are Inter Cape, Greyhound, and Baz Bus. Most of TWKM residents need to use MBT services or private transport to access these long distance bus pick-up points. The Cape

Town-Port Elizabeth routes can be accessed at Hermanus and Swellendam, while the Cape Town-Durban routes can be accessed at Caledon, Riviersonderend and Swellendam.

The services operate daily with five buses per day between Cape Town and Johannesburg, one bus between Cape Town and Durban (Greyhound), three buses between Cape Town and East London / Mthatha and one bus between Cape Town and Port Elizabeth (Baz Bus).

### (v) Commuter Rail Services

There are no rail line services for commuters in TWKM. **Plan 4.4** illustrates the location of the rail lines in the region. Although there is a rail line running through TWKM, it is currently only used for rail freight and as a tourism route.

### (vi) Non-motorised Transport

Non-Motorised Transport (NMT) typically includes walking, cycling and variants such as small-wheeled transport. Animal-powered forms of transport (horse-drawn carts and horse-riders for example) are also included in this definition and are still widely used in most rural areas in TWKM.

The NMT environment in TWKM has poor quality infrastructure and lacks direct and continuous routes. As there is no NMT network, existing NMT routes within the road environments are often not sociable, poorly maintained, seldom used and suffer from the infiltration of crime.

This is often due to poor infrastructural planning, lack of integrated design approach and difficulties experienced in managing public spaces. Sidewalks are often not surfaced and NMT users tend to use the road and are therefore exposed to high safety risks.

Many communities are challenged with either public transport being too expensive or access to public transport being limited or non-existent.

This leaves people and learners to walk long distances to their destinations. This

increasing trend is illustrated through figures from the National Household Transport Survey (2013) that indicate that NMT usage in TWKM for going to work is high at 40%, as illustrated in the table below, following a similar trend at a district level.

**Table 4.20: Main Mode of Transport to Work**

Mode of Transport	TWKM	ODM
Bus	14%	8%
Private transport	36%	37%
Taxi	4%	5%
Train	0%	0%
Walking all the way	40%	46%
Other	5%	4%

#### 4.5.4 Regional Engineering Infrastructure

##### (i) Solid Waste Management

The Western Cape Integrated Waste Management Plan (2017 – 2020) is the relevant policy pertaining to waste management in the Western Cape. Waste management is the mandate of each municipality.

All landfill sites in the TWKM have reached capacity and all, except Caledon, are no longer accepting waste. The closure of a landfill site requires a closure license as well as rehabilitation. In order for a landfill site to be closed properly, closure must be preceded by rehabilitation in order to ensure that the site is environmentally acceptable. The DEA&DP's Assessment of the Municipal Integrated Waste Management Infrastructure report for the Overberg District (2016) provided an assessment of the waste management facilities in the Municipality and made recommendations and cost estimations related to

interventions that facilities would require in order being compliant. In addition, the Municipality commissions a Landfill Closure Provisions Study annually which determines the rehabilitation costs of the Caledon, Genadendal, Greyton, Riviersonderend and Villiersdorp waste disposal sites.

Where landfill sites have reached capacity, Refuse Transfer Stations or Public Drop off points have been established or the planning thereof is underway. These stations / points act as holding areas until waste is transported to the Karwyderskraal regional landfill site. The Botrivier drop off site and the Grabouw Refuse Transfer Station are operational. More details are provided in town level analysis in **Chapters 6 to 13**.

Concerns with respect to waste management within TWKM are:

- Support is required with respect to the collection of pesticides / hazardous waste from farming areas.
- The rapid growth of informal settlements and the ability to provide services to these settlements is a major concern.

##### (ii) Regional Landfill Sites

The Karwyderskraal regional landfill site is situated in the ODM and is shared between Theewaterskloof and Overstrand municipalities and is managed by the ODM. The ODM, Overstrand Municipality and TWKM signed a Service Level Agreement for the Karwyderskraal Landfill Site in 2018. In terms of the agreement, the ODM will construct a new cell (4th cell) in the landfill site and maintain the landfill site to ensure that ODM and other interested parties and local municipalities in the Overberg Regional District have a facility to dispose of general waste. TWKM will contribute to the capital cost of the 4th cell. The estimated useful lifespan of the whole Karwyderskraal landfill site is estimated to be 55 years and the Service Level Agreement will commence once the new cell in the landfill site is completed.

According to estimates, the new cell will be able to take approximately

200 000 tons of solid waste. At the current growth rate, the new cell will take approximately eight years to fill before a new cell will have to be commissioned.

The IWMP highlighted compliance issues with some facilities and costed approximate investment required for the rehabilitation of facilities in order to become operationally compliant. TWKM has appointed a service provider to draft a Landfill Closure Provisions Report in which the costs are updated annually. Details from the latest report are contained in the town level analysis in **Chapters 6 to 13**.

### (iii) Potable Water

The only regional bulk water infrastructure located within the TWKM area is the water tunnel from the Theewaterskloof Dam, which supplies water to Cape Town via Franschhoek.

### (iv) Sewerage

There is no regional bulk sewerage infrastructure. Each formal settlement treats its own wastewater.

#### 4.5.5 Settlements

For the purpose of categorising the settlements within the TWKM area, the following three different approaches were considered.

### (i) Classification of Towns as per Provincial Spatial Development Framework (2014)

In terms of the PSDF, towns are classified based on their respective populations. Considering the projections that were done in **subsection 4.4.3** of this chapter, in terms of the PSDF model, the settlements within TWKM can be classified as follows:

**Table 4.21: Settlement, Population Size and Classification**

Settlement	Population (2018, estimate)	Settlement classification and associated thresholds as per the PSDF and CSIR Guidelines
Grabouw	41 035	Primary Regional Service Centre 20 001 – 70 000
Caledon	16 157	Secondary Regional Service Centre 5 001 – 20 000
Villiersdorp	12 852	
Botrivier	6 626	
Riviersonderend	6 518	
Genadendal	6 432	
Greyton	3 470	Rural Settlements with thresholds to support permanent social services 1 000 – 5 000

### (ii) Growth Potential of Towns Study Classification

The Growth Potential Study (GPS, 2014) determines the growth potential and socio-economic needs of settlements in the Western Cape using quantitative data. The results were combined to identify potential interventions that might unlock latent potential within settlements and regions.

The following table depicts settlement growth potential in terms of the findings of the GPS 2014. The GPS 2014 also includes a socio-economic needs index, in addition to the growth potential of settlements and municipalities. Both Grabouw and Caledon are highlighted as a high growth potential settlement with a high socio-economic needs index base. Settlements with a high growth potential and high socio-economic needs base can be considered prime development and investment opportunities, as well as socio-economic

development imperatives.

**Table 4.22: Settlement and Ranking in terms of Growth Potential and Socio-Economic Need**

		Socio-economic Need				
		Very Low	Low	Medium	High	Very high
Growth Potential	Very Low					
	Low					
	Medium	Greyton	Botrivier Riviersonderend Genadendal	Villiersdorp		
	High			Caledon	Grabouw	
	Very High					

At municipality level, TWKM is rated as having a high growth potential rate.

**(iii) Settlement Classification used in this SDF**

For the purposes of this document, it was decided to adopt an approach that takes both methodologies into consideration. Based on this approach, the settlements within the municipal area are classified in the following table.

**Table 4.23: TWKM Settlement Classification**

Settlement	Settlement Classification
Caledon Grabouw	Primary Regional Service Centre
Villiersdorp Botrivier Riviersonderend Greyton	Secondary Regional Service Centre
Genadendal	Rural Nodes
Tesselaarsdal Kaaimansgat Vygeboom Nuweberg Dennegeur Elgin Orchards Kromvlei Lebanon Velapi Molteno Theewaterskloof Country Club Dennehof Helderstroom Krige Stasie Lindeshof Rietpoel	Rural Settlements

**(iv) Rural settlements**

The TWKM rural landscape is characterised by dislocated and isolated residential pockets which are mainly clustered farm worker housing. Some of these residential pockets have developed more than others and some may include schools, shops, sport fields etc.

The origin of most of these rural settlements can be attributed to the existence and dependence of people on natural resources; the primary economic activities such as agriculture and forestry. A characteristic of these rural settlements is that they do not reflect the variety of land use categories of higher order nodes.

These developments typically include mostly residential land uses, with little or no diversification or specialisation of other land use categories (i.e. business, community facilities). In addition, the majority of rural settlements currently have poor access to job opportunities and basic services.

There are several rural settlements situated within TWKM, which are included in the table above. The majority of these settlements are private settlements.

Given the low level of diversification of non-residential land uses, little if any of the rural settlements contain functions of which the threshold value and influence sphere overlap with the functions of other rural settlements. The rural settlements contain lower order facilities and therefore have vital links to urban settlements in order to meet local needs for services, household goods and certain community facilities.

The following concerns were first raised in the 2012 and 2019 TWKM SDFs and remain relevant:

- high level of dependency of all rural settlements upon road linkages to higher order settlements for essential services;
- scattered location of rural settlements as shown by distances between settlements indicates that virtually none of the functions of rural

settlements overlap;

- the hinterland south of Caledon contains no other higher order urban functions;
- the locational disposition of rural settlements means that the residents are highly dependent on transport (MBTs) and a relatively high proportion of disposable income is spent on transport.

**(v) Housing Need**

The Long Term Financial Plan (2022, LTFP) concluded that TWKM is under financial pressure. One of the key focus areas that has a major impact on the longterm financial sustainability is the disproportionate growth in the number of low-income earning individuals that reside in TWKM. This causes a low rates base and low collection rate. In addition, a large proportion of the municipal budget needs to be spent on the provision of basic services and housing for these individuals.

**Table 4.24** presents the current (2023) overall housing need in TWKM. As can be seen, there are 31 informal settlements located within TWKM, with half located in Grabouw. This is an increase from the 22 informal settlements recorded in 2019. More than half of the individuals on the current waiting list reside in Grabouw. This represents a major financial implication for Grabouw to provide for the needed housing and social facilities.

There are also 1 555 farm workers on the current waiting list. These farm workers would either need to be accommodated within the towns or within agri-villages.

To partly address the above housing need, TWKM has identified a number of housing projects on their housing pipeline. **Tables 4.25 to 4.31** below lists each identified housing project per settlement. The SDF has allocated sufficient land for these projects within each settlement.

**Table 4.24: TWKM Housing Need (2023)**

Town	Informal Settlements	Informal Structures	Backyarders	Farm Workers Registered	Total Housing Demand
Caledon	1	989	214	89	1 292
Grabouw	15	12 632	889	645	14 166
Villiersdorp	11	3 629	199	652	4 480
Botrivier	1	389	148	88	625
Riviersonderend	1	142	126	65	333
Greyton	2	110	96	16	222
<b>Total:</b>	31	17 891	1 672	1 555	21 118

**Table 4.25: TWKM Housing Pipeline (2023): Caledon**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Caledon Erf 703 (Side Saviwa Hostels)	IRDP/FLISP	80 units	Pipeline	0%	Beyond 2025	2 years
Caledon Erf 1 (Uitzicht)	IRDP	893 sites & 500 units	Pipeline	0%	2026	8 years
Caledon Erf 282 Myddleton	FLISP	80 sites & units	Pipeline	0%	2025	4 years
Caledon Erf 1100, 1101, 1102, Ptn of Erf 1	FLISP	10 sites & units	Pipeline	0%	2026	1 years
Caledon Riemvasmaak Superblocking	UISP	1 045 sites	Current	20%	2025	2 years
Caledon Erf 1 (Bergsig)	IRDP/FLISP	237 sites	Pipeline	16%	2025	4 years
Caledon Side Saviwa 3 Stage 1 & 2 (Riemvasmaak) (Phase 1)	UISP/IRDP	340 sites & units	Future	0%	2026	6 years
Caledon Erf 1 Site F1 (Phase 2)	IRDP	874 sites	Future	0%	Beyond 2025	4 years

**Table 4.26: TWKM Housing Pipeline (2023): Grabouw**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Grabouw De Wetsdorp Erf 6573 (6581, 6588-6594,6596,6601,6603,6606)	FLISP	100 sites & units	Pipeline	0%	2029	? years
Grabouw Roodakke Civils	UISP	1 054 sites	Current	100%	Current	2 years
Grabouw Roodakke Top Structures	PHP	1 054 units	Current	100%	2024	3 years
Grabouw Iraq UISP Project Civils	UISP	272 sites	Current	100%	Current	2 years
Grabouw Hillside Project Civils	IRDP	232 sites and units	Current	100%	2024	2 years
Grabouw Hillside (438 services)	UISP	438 sites	Current	100%	Current	2 years
Grabouw Hillside (438 units)	PHP	321 units	Current	100%	Current	2 years
Grabouw Waterworks (Beverly Hills) Erven 505, 545 & 793 (404 services & 404 units) (Phase 2)	UISP	404 sites	Current	50%	TBD	8 years
Grabouw Two A Day	IRDP/FLISP	1 156 sites & units	Future	0%	2026	4 years
Grabouw Gypsy Queen	IRDP/FLISP	500 sites & units	Current	18%	2026	4 years
Greater Grabouw	UISP/FLISP/IRDP	6500 sites	Current	10%	2028	8 years
Grabouw Emergency Housing Project Civils	UISP/EHP	67 sites	Current	32%	Current	1 years
Grabouw Emergency Housing Top Structures	EHP	67 units	Current	33%	Current	? years

**Table 4.27: TWKM Housing Pipeline (2023): Villiersdorp**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Villiersdorp New Crest Erf 2211-2214, 2216-2222, 2229-2237, 2239-2249	FLISP	38 sites & units	Pipeline	0%	2026	2 years
Villiersdorp Old Caravan Park Erf 2819	IRDP/FLISP	250 sites	Pipeline	0%	2028	3 years
Villiersdorp Berg en Dal In-situ Upgrade Civils	UISP	182 sites & units	Current	41%	Current	1 years
Villiersdorp Farm 24 West Side (195 services)	UISP	195 sites	future	0%	Unknown	Unknown
Villiersdorp Destiny Farm Civils (Phase 1)	IRDP	500 sites	Current	100%	2024	2 years
Villiersdorp Portions 1, 22, 32 & 72 of Farm 72 (Destiny Farm) Phase 2	IRDP/UISP	1 316 sites & units	Future	50%	Current	11 years
Villiersdorp Farm 24 (Phukom and Goniwe)	UISP	500 sites & units	Future	0%	2023/2024	5 years
Villiersdorp Community Hall	S & EF	0	Pipeline	0%	Beyond 2025	1 year
Villiersdorp 3264 Radyn Farm 24 (120 services & 120 units)	IRDP	120 sites & units	Pipeline	16%	2026	4 years

**Table 4.28: TWKM Housing Pipeline (2023): Botrivier**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Botrivier Erf 1212 (26 serviced sites)	IRDP/FLISP	26 sites	Pipeline	16%	2026	4 years
Botrivier Erf 1351 (25 serviced sites)	IRDP/FLISP	25 sites	Pipeline	33%	2026	4 years
Botrivier Portion 25 of Farm 436 (127 serviced sites)	IRDP	127	Pipeline	16%	2026	2 years
Botrivier Erf 2577-2592	FLISP	40 sites	Pipeline	0%	2028	1 years
Botrivier Beaumont Portion 51 of Farm 436, Phase 1	IRDP/UISP	272 sites (TRA 544)	Current	100%	Current	5 years
Botriver: New Frans Extension (Beaumont Portion 51 or Farm 436), Phase 2 Civils	IRDP	776 sites & units	Current	30%	2025	5 years

**Table 4.29: TWKM Housing Pipeline (2023): Riviersonderend**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Riviersonderend Erf 289 Sites F1&2	IRDP	983 sites & units	Pipeline	??%	2024	3 years
Riviersonderend Joe Slovo 48 Top Structures	PHP	48 units	Current	100%	Current	1 years
Riviersonderend Erf 1678 Bego Street	IRDP/FLISP	110 sites	Pipeline	66%	2024	2 years
Riviersonderend Erf 459 (200 services & 200 units)	IRDP/FLISP	200 sites & units	Pipeline	0%	Current	5 years
Riviersonderend Erf 289 Site Phase 1 (224 services)	IRDP	224 sites	Pipeline	33%	Beyond 2025	3 years
Riviersonderend Erf 289 Site Phase 2 (729 services)	IRDP	729 sites	Pipeline	33%	Beyond 2025	TBD

**Table 4.30: TWKM Housing Pipeline (2023): Greyton**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Greyton Erf 595 (GT1)(20 services & 20 units)	GAP/FLISP	127 sites	Future	16%	2028	3 years
Greyton Erf 595 Civils	IRDP/FLISP	377 sites	Current	40%	2026	3 years
Greyton Erf 1787 Site Phase 1 (55 services)	FLISP	16 sites	Pipeline	16%	2026	3 years
Greyton Erf 1786 Site Phase 2 (19 services)	FLISP	19 sites	Pipeline	16%	2026	4 years
Greyton Erf 1787, 1786, 595 (GT1)(20 services & 20 units)	FLISP	20 sites & units	Pipeline	16%	2027	? years

**Table 4.31: TWKM Housing Pipeline (2023): Genadendal, Bereaville and Voorstekraal**

Project Name	Programme	Housing Opportunities	Project Status	Project Readiness	Construction Year	Duration
Genadendal greater Farm 39 (250 services)	IRDP	250 sites	Pipeline	16%	Beyond 2025	12 years
Genadendal Erf 1897 Site Phase 2 (20 services)	IRDP	20 sites	Pipeline	16%	Beyond 2025	3 years
Genadendal Erf 1999 Site Phase 1 (16 services)	IRDP	16 sites	Future	16%	Beyond 2025	3 years

**(vi) Restructuring Zones**

The Social Housing Act of 2008 defines a restructuring zone as: “*restructuring zone means a geographic area which has been; (a) identified by the municipality, with the concurrence of the provincial government, for purposes of social housing; and (b) designated by the minister in the Gazette for approved projects*”.

Restructuring via social housing seeks to achieve three main dimensions of restructuring:

- Spatial restructuring by bringing lower income people into areas where there are major economic opportunities (both with respect to jobs and consumption). Indirectly, social housing contributes to spatial restructuring by increasing densities and compacting growth thereby ensuring that the poor are not pushed out to marginal locations at the edge of settlements.
- Social restructuring by promoting a mix of socio-economic groups.
- Economic restructuring by promoting spatial access to economic opportunity and promoting job creation via the multiplier effect associated with building medium density housing stock.

Social housing is targeted by Government to address a specific segment of the market through a combination of the following:

- rental market;
- household income level of R0 – R15 000 per month;
- development of social housing by non-profit companies registered at the Social Housing Regulatory Authority.

In terms of the Social Housing Act, TWKM needs to initiate, identify and motivate these restructuring zones. These areas should be well located in terms

of access, community facilities, economic activities and employment opportunities.

Grabouw and Villiersdorp are proposed as restructuring zones for TWKM, given the current and estimated future housing need.

**4.5.6 Built Environment: Theme Implications**

- ☒ TWKM is strategically located with regards to the N2 National Road and the R43 and R44 Provincial Roads, which traverse the municipal area. The TWKM should take advantage of the passengers and cargo passing through on these roads and ensure that the mobility of these roads are maintained and enhanced.
- ☒ TWKM should create an optimal environment for developers to invest in employment generating enterprises.
- ☒ TWKM has a large low-income housing backlog, which puts a financial pressure on the Municipality in terms of service delivery.