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## CAPE WINELANDS DISTRICT MUNICIPALITY INTEGRATED WASTE MANAGEMENT PLAN (2021 TO 2027)

### FINAL IWMP

FINAL REPORT  
REVISION 00

**MAY 2021**

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## EXECUTIVE SUMMARY

The development of an Integrated Waste Management Plan (IWMP) is a statutory requirement of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) that has been promulgated and came into effect on 01 July 2009. Its goal is the transformation of the current methodology of waste management, i.e. collection and disposal, to a sustainable practice focusing on waste avoidance and environmental sustainability. The development of the IWMP is necessary, as it is an integral tool to identify current needs and acts as a guide towards sustainable waste management. The IWMP was developed in line with the district municipality's (DM) integrated development plan's (IDP) strategic objectives.

The Cape Winelands District Municipality (CWDM) is situated in the Western Cape Province, next to the Cape Metropolitan area and stretches over 22 309 km<sup>2</sup>. The district includes five local municipalities (LMs), namely Drakenstein, Stellenbosch, Witzenberg, Breede Valley and Langeberg. The area is one of the pearls of South Africa's rural and small-town sub-regions, but disparate with a relatively high and diverse level of development.

Delta Built Environment Consultants (Delta BEC) was appointed by the CWDM to compile an IWMP for the period of 2021 to 2027.

Sections 1 and 2 of this report provide the background of the project, and the approach that the Delta BEC team followed to complete the status quo section of this IWMP, respectively. Section 3 of this report details the roles and responsibilities in terms of waste management at national, provincial, district and municipal level that inform and assist in rendering integrated waste management services. The roles and responsibilities are as follows:

- **National Government:** The national government is tasked with establishment of a national waste management strategy (NWMS), including targets. The national norms and standards (N&S) developed by National Government may in turn cover all aspects of the waste flow path, from planning to service delivery.
- **Provincial Government:** The provincial governments are tasked with the implementation of the National Environment Management: Waste Act (NEM:WA), Waste Management Regulations, the NWMS, as well as the N&S. The Constitution requires provincial government to monitor and provide support to municipalities in the province, and to see to the implementation of waste-related regulations and strategies.
- **District Municipalities:** Section 84 of the Municipal Systems Act (Act 32 of 2000) assigns a function of waste disposal to district municipalities. Not all district municipalities are fulfilling this role. However, when the need arises for a regional landfill, the district can perform this role.
- **Local Government:** The NEM:WA (Act 59 of 2008) requires local authorities to implement mechanisms for the provision of waste collection services including collection, storage and disposal. Local authorities are also required to facilitate recycling and waste diversion from landfill and manage waste information appropriately.

The following strategic linkages in terms of waste management on international, national, provincial and local level were considered during the development of the CWDM IWMP.

### **International Treaties**

The following international treaties discussed in Section 3 of this report were considered:

- Basel Convention
- Rotterdam Convention
- Stockholm Convention.

### **National Acts, Regulations and Strategies**

The following national Acts, regulations and strategies are discussed in Section 3 of this report and were considered during the development of the CWDM IWMP:

- The South African Constitution (Act 108 of 1996)
- The National Environmental Management Act (Act 107 of 1998)
- The Hazardous Substances Act (Act 15 of 1973)
- The Municipal Systems Act (Act 32 of 2000)
- The Local Government: Municipal Structures Act (Act 117 of 1998)
- The National Environmental Management: Waste Act - Waste Classification & Management Regulations (R. 634 August 2013)
- The National Environmental Management: Waste Act - National Norms and Standard for Assessment of Waste (R. 635 August 2013)
- The National Environmental Management: Waste Act - National Norms and Standard for Disposal of Waste to Landfill (R. 636 August 2013)
- National Environmental Management: Waste Act - National Waste Information Regulations (January 2013)
- National Environmental Management: Waste Act (59/2008) - Waste Tyre Regulations (29 September 2019)
- National Environmental Management Act: NEMA - EIA Regulations (18 June 2010)
- The National Environmental Management: Waste Act - Draft National Norms and Standards for organic waste composting (4 September 2019)
- The White Paper on Integrated Pollution and Waste Management for South Africa (17 March 2000)
- The National Waste Management Strategy (2019)
- National Organic Waste Composting Strategy: Draft Strategy Report and Guideline (February 2013).

### **Provincial Plans, Strategies and Guidelines**

The following provincial strategies were considered:

- **Western Cape Integrated Waste Management Plan (2017-2022)**

The Western Cape outlined four goals in the 2<sup>nd</sup> Generation IWMP (2017-2022). The CWDM's goals and targets were developed in line with the following four goals from the Western Cape IWMP:

- Goal 1: Strengthened education, capacity and advocacy towards integrated waste management
  - Goal 2: Improved integrated waste management planning and implementation for efficient waste service infrastructure
  - Goal 3: Effective and efficient utilisation of resources
  - Goal 4: Improved compliance with environmental regulatory framework.
- **Western Cape Green Economy Strategy Framework (2013)**  
The 2013 Western Cape Green Economy Strategy Framework aims to achieve the double dividend of optimising green economic opportunities and enhancing environmental performance.

The strategy identifies three high-level priorities for green growth:

- 1) Natural gas and renewables
- 2) Financial infrastructure
- 3) Green jobs – including the waste sector.

- **Western Cape Diversion Targets for Organic Waste Management (2018)**  
Organic waste is identified as a problematic waste stream in the Western Cape, with an excess of 37% of waste generated in the province being organic waste. Landfilling of organic waste results in loss of airspace, methane and leachate generation, odour and health impacts.

Diversion of organic waste from landfill can reduce these negative impacts and can also aid in job creation at waste management facilities. Compost and biochar produced from organic waste can be used as an alternative to fertilisers to improve soil condition.

The Department of Environmental Affairs and Development Planning (DEA&DP) proposed a 50% diversion from landfill sites by 2022, and a landfill ban on organic waste to landfill by 2027.

- **Guideline for Management of Abattoir Waste in Western Cape (2015)**  
The guideline on the management of abattoir waste in the Western Cape was developed by the DEA&DP as one of the recommendations stemming from the status quo study of abattoir waste conducted in 2015. The guideline provides an overview of the current status quo of abattoir waste, treatment and disposal methods.

### **Local By-Laws**

The local by-laws that were considered included, but are not limited to, the by-laws of the CWDM and the local municipalities.

The CWDM does not manage waste collection or disposal and therefore does not have Solid Waste By-Laws. However, Chapter 8 of the Municipal Health By-Laws of the Cape Winelands District Municipality published in the Government Gazette Extraordinary on Monday, 15 February 2010 relates to waste management. The Waste Management section is outdated and needs to be reviewed to include NEM:WA and NWMS. The section reads as follows:

**‘Part 1: General provisions regarding recovery, storage and disposal of waste**

*Recovery, storage and disposal of waste*

- 1) *Waste must be recovered, stored, transported and disposed of —*
  - a) *without endangering human health*
  - b) *without the use of processes or methods likely to harm or pollute the environment*
  - c) *in a manner that does not create a health nuisance.*
- 2) *A person who contravenes subsection (1) commits an offence.*

**Part 2: Hazardous Waste**

*Applicable legislation*

*The municipality, taking cognizance of the provisions of the Environment Conservation Act, 1989 (Act No. 73 of 1989) the Hazardous Substances Act, 1973 (Act 15 of 1973), the National Health Act, 61 of 2003, and the regulations made under these Acts, adopts the provisions in this Part.*

*Storage of hazardous waste*

- 1) *An empty container in which hazardous waste such as, but not limited to, pesticides was stored is to be treated as hazardous waste, and —*
  - a) *must be stored in such a manner that —*
    - i) *no pollution of the environment occurs at any time*
    - ii) *no health nuisance is created at any time*
  - b) *while being stored on site, must be clearly marked or labelled with the words “Hazardous Waste”*
  - c) *the owner or occupier of the land must fence off the storage area to prevent unauthorised access*
  - d) *shall be dealt with as Class 6 waste as described in the Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (Second Edition, 1998) as published by the Department of Water Affairs and Forestry and as amended from time to time.*

*A person who contravenes a provision of subsection (1)(a) to (d) commits an offence.’*

Section 4 of this report details the status quo findings, which include the demographics, waste management budget, waste categories generated, service delivery of the LMs, compliance and enforcement and waste awareness initiatives, and projects of the LMs and CWDM.

## Demographics

The Cape Winelands District Socio-Economic Profile (CWDM SEP, 2019) report, drafted by the Western Cape Department of Social Development, along with the CWDM Integrated Development Plan (IDP, 2017-2022), was used to determine the demographic profile of the CWDM. The estimated population from 2020 to 2027 is based on the assumption that the average population growth rate will remain unchanged. At the time of the investigations (2020), the CWDM had a population estimate of 930 725. Approximately 52.0% of households in the CWDM fall within the low-income bracket, of which 13.1% have no income. 39.5% of households fall within the middle-income bracket and 8.6% fall in the higher income bracket.

The CWDM contributed 385 548 jobs to formal and informal employment in the Western Cape in 2017 (CWDM SEP, 2019). In 2016, there was a total of 236 006 households within the CWDM, of which 81% had access to housing in the form of a formal dwelling (CWDM SEP, 2019). In 2018, electricity services represented the largest number of consumer units at 164 910. This was followed closely by water at 159 677. Sanitation and solid waste removal had 146 387 and 133 798 consumer units respectively (CWDM SEP, 2019).

## Waste management budget

The CWDM does not provide any waste management services. The CWDM budgeted a total of R1 000 000.00 for solid waste management for the 2020/2021 financial year. The budget is utilised for the upgrading of the IWMP and to do an Article 78 investigation for a regional landfill site. An amount of R2 000 000.00 is currently provided for the 2021/2022 and 2022/2023 financial years in the Medium-Term Revenue and Expenditure Framework (MTREF) budget.

## Waste categories generated

The following categories of waste were found to be generated in the CWDM.

CATEGORIES	DESCRIPTION
<b>General waste</b>	Domestic general waste: <ul style="list-style-type: none"> <li>Domestic waste generated by households. This waste usually contains recyclable materials, non-recyclable materials, garden refuse and C&amp;D waste.</li> </ul>
	Business general waste: <ul style="list-style-type: none"> <li>Business general waste typically includes all waste generated by, for instance, supermarkets and other businesses that are either non-hazardous or hazardous. This waste usually contains high percentages of recyclable materials.</li> </ul>
<b>Organic waste</b>	Garden refuse and food waste.
<b>Construction and demolition (C&amp;D) waste</b>	Concrete, mortar, bricks, wood, insulation materials, gypsum, etc. generated from construction and demolition sites.

CATEGORIES	DESCRIPTION
<b>Health care risk waste (HCRW)</b>	Discarded blood and human tissue, sharps, infectious materials, expired pharmaceuticals, etc.
<b>Hazardous waste</b>	Used mineral oils, solvent residues, paint and resin waste, organic chemical residues, sewage sludge and expired agricultural chemicals (pesticides), etc.
<b>Other waste types</b>	This includes waste produced by agricultural activities and abattoirs as well as waste tyres.

Waste categorisation studies have been conducted in all the local municipalities within the district. From the waste categorisation studies, the overall average recyclables (plastic, cardboard, paper, metal and glass) generated in the CWDM account for 41% of the waste stream, and organic waste 34%.

Information on the mass of hazardous waste generated is not easily accessible. The CWDM includes large agricultural areas. Hazardous waste from these areas includes fertiliser, chemical packaging and expired pesticides. The management of chemical packaging waste is an important environmental, health and safety issue. Of particular concern are the containers from pesticide or herbicide chemicals. Typically, farmers are known to burn these empty plastic chemical containers as well as empty plastic fertiliser bags in open fires on farms, which is in turn resulting in significant air pollution.

In the WLM, household hazardous waste, such as batteries and small fluorescent lights, is assumed to form part of the general waste which is disposed of at the Tulbagh or Op-die-Berg landfill sites. There are currently (2020) no hazardous waste generators registered within the BVLM and no tonnages are reported to the BVLM. In LLM, household hazardous waste is assumed to form part of the general waste stream, which is disposed of at the Ashton landfill site. The collection and correct treatment/disposal of household hazardous waste in the DLM is not a priority specifically identified by the municipality although allowances are made for members of the public to take such items to the Paarl transfer station. The hazardous waste generated in DLM is transported to the Vissershok Waste Management Facility for treatment/disposal. The waste characterisation study indicated that less than 1% (0.3%) of the household waste stream was made up of hazardous waste or electronic waste.

The major health care risk waste (HCRW) generators in the LMs are the private and public hospitals and clinics. The LMs do not provide HCRW treatment and disposal services, resulting in it being the responsibility of the generator to enter a service contract with private service providers for the safe collection, transport, treatment and disposal of such waste. Compass Medical Waste Services is currently (2020) the HCRW service provider for most of the private and provincial hospitals and clinics in the CWDM. Compass is licensed to transport, treat and dispose of infectious HCRW, sharps HCRW, anatomical HCRW and expired pharmaceutical HCRW. There might be some general doctors and veterinarians making use of other service providers within the CWDM. From the compass data, the estimated HCRW generated in the CWDM during January 2020 to August 2020 was 145 066 tonnes.

Agricultural waste refers to waste produced because of various agricultural operations. Some examples of agricultural waste include crop-growing, harvest residues and harvest waste

(such as herbs, grains, root tubers, etc). Waste from livestock farming such as grass, litter or feed is also considered to be an agricultural waste. Most of the LMs do not provide collection services to farmers. The farmers take their waste to the nearest waste management facility.

None of the LMs accept any tyre waste at landfill sites. In the case of tyres being disposed of at a landfill site, the LMs will stockpile the tyres and use them as barriers at parks or landfill sites. Illegal dumping of tyres does occur at the Worcester landfill site, but the BVLM plans to stockpile the tyres for future safe disposal in accordance with guidelines to be issued by the Department of Environment, Forestry and Fisheries (DEFF).

### **Service delivery of the LMs**

The following provides a summary of the current waste management services delivery in the LMs.

#### **Witzenberg LM:**

- The WLM recently reported a 100% collection service. Some businesses within the WLM make use of private companies to collect recyclables. Such companies are required to report the mass to the WLM. The WLM has a collection schedule that allows for collection once a week in all towns. The WLM provides green and black bags to the households. Only Tulbagh currently (2020) receives clear bags for recycling.
- The WLM is currently in the planning phase for the implementation of waste separation at source in all towns. A pilot project was rolled out in one town (Tulbagh), which demonstrated that approximately 85% of waste can be diverted from landfills. The WLM currently (2020) provides green bags to households for garden refuse.

#### **Drakenstein LM:**

- All households are using 240 l wheelie bins. Reportedly there are 43 informal housing settlements that each receive one black bag per week for which they must sign. Black bags go directly to the landfill and clear bags get taken to the recycling areas at the Paarl transfer station and Wellington landfill.
- The DLM has an active and successful waste recycling programme. This includes separation at source in some of the residential areas of Paarl and Wellington, which currently amounts to approximately 1% to 3% of the total waste by mass ending up in clear bags for further separation and recovery at the Paarl transfer station facility and Wellington landfill.

#### **Stellenbosch LM:**

- The SLM serves approximately 38 500 households with solid waste management services. The 28 751 collection points are spread across the 22 wards of the municipality. The refuse collection breakdown is approximately 20 000 240 l wheelie bins and 4 000 standard refuse bags as of 2019. The SLM utilises 11 refuse collection trucks, operated by more than 60 crew members in a 30-hour working week.

- Separation at source is being implemented by households by utilising a clear bag for recyclables. More than 50% of the domestic waste stream is being potentially recycled.

#### **Breede Valley LM:**

- The BVLM supplied 240 l wheelie bins to all middle and high-income groups in Worcester, De Doorns and Rawsonville towns. The bins are placed outside the households for weekly collection as per the collection schedule. Clear bags for recycling are issued to the residence on a one-on-one basis. This implies that the resident receives a bag if they provide a bag with recyclable material. The black bags are placed outside the informal settlement households and collected by the BVLM. Waste is collected on a weekly basis from schools and businesses. The middle and high-income areas are participating in a separation at source programme. The recyclables from the households are collected by the municipality and transported to private recycling companies. Four organisations are currently registered as waste management companies with the BVLM. All four of the waste management companies report on waste tonnages to the BVLM.

#### **Langeberg LM:**

- The LLM provides waste collection services to high, medium and low-income groups, businesses and schools. In 2015, the LLM started to provide 240 l wheelie bins to all households in the main towns. The LLM provides clear bags for recyclables. The LLM has a collection schedule that allows for once-a-week collection in all towns.
- The LLM offers collection of source-separated waste to all households and businesses in the main towns. The participation level in low-income areas is lower than in that of middle and high-income areas. The LLM distributes two clear bags per week per household in all the towns for collection of recyclables. The recyclables were previously transported to the Ashton Material Recovery Facility (MRF) where the recyclables were further separated and sold – until the Ashton MRF was vandalised in May 2020. Due to the vandalization of the MRF, the recyclables are currently (2020) transported to Southey's recycling, a private recycling company, while the plans for the new MRF next to the Ashton transfer station are developed.

#### **Compliance and enforcement**

All waste generation and management information are reported to Integrated Pollutant and Waste Information System (IPWIS) developed by the DEA&DP for the Western Cape Government. The data is exported from the IPWIS to the South African Waste Information System (SAWIS) in terms of the National Waste Information System Regulations (GN 625 of 2012). All LMs in the CWDM do report waste tonnages on the IPWIS.

Waste management facilities in the CWDM have been identified through a review of licences on SAWIS, literature reviews, discussions with representatives from municipalities and discussions with stakeholders. Additional facilities may be present in the CWDM which are below the threshold for a waste management licence or registration, or that are located on

private land and operated without the required authorisation. It is, for instance, possible that farmers may be operating small-scale composting facilities that the municipalities are not aware of. The following table provides the number of waste management facilities in the CWDM.

WASTE MANAGEMENT FACILITIES IN CWDM	TOTAL NUMBER OF FACILITIES
Operational landfill sites	10
Closed landfill sites	12
Transfer stations	5
MRFs	3
Public drop-off facilities	9
Composting facilities	1

### **Waste awareness initiatives and projects**

All LMs have waste awareness initiatives to educate the public on waste and waste management. The CWDM also distributes educational material to schools and informal areas. The educational material encourages recycling and contains recycling information on different waste streams.

Based on the findings of the status quo investigation, several gaps and needs have been identified. Gaps and needs related to waste management in each local municipality have been identified in terms of each of the following waste management activities:

- Waste minimisation, recycling and reuse initiatives
- On-site waste containerisation and storage
- Waste service delivery
- Waste management facilities
- Organic waste management
- Hazardous waste management
- Waste management collection fleet, plant and equipment
- Human and financial resource management
- Waste management information
- Waste education and public awareness
- Strategic planning.

While the gap and needs analysis (Section 5) identifies the gaps and needs for all five LMs, the goals identified below are directed at the CWDM. To align the CWDM's goals with those of the NWMS 2020 and the Western Cape IWMP (2017-2022), the following goals and associated targets were formulated:

- Goal 1: Promote waste minimisation and recycling
- Goal 2: Improved waste education and public awareness
- Goal 3: Ensure sound budgeting for integrated waste management

- Goal 4: Improve regulatory compliance
- Goal 5: Improve waste information management.

The goals and objectives for the CWDM are not directly related to waste management service delivery since the district municipality only plays an overarching role in terms of waste management. The goals are, however, aimed at improving waste service delivery within each of the five local municipalities.

The comments from the public participation phase have been received and incorporated in the Final IWMP.

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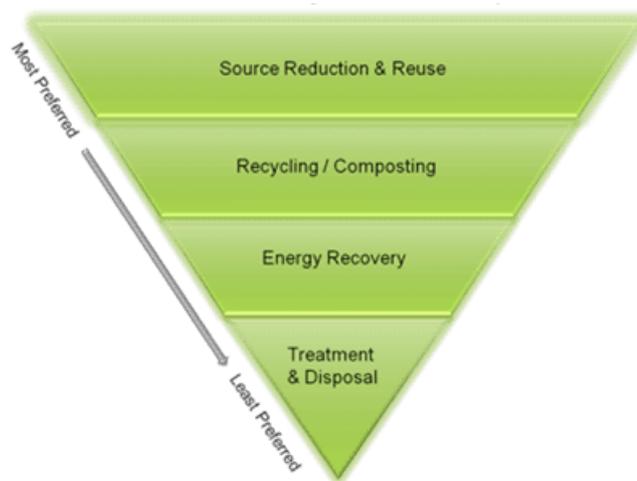
## GLOSSARY OF TERMS AND ABBREVIATIONS

BVLM	Breede Valley Local Municipality
CWDM	Cape Winelands District Municipality
DEA&DP	Department of Environmental Affairs and Development Planning
DM	District Municipality
DLM	Drakenstein Local Municipality
EPWP	Expanded Public Works Programme
HCRW	Health Care Risk Waste
IDP	Integrated Development Plan
IWMP	Integrated Waste Management Plan
LM	Local Municipality
LLM	Langeberg Local Municipality
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEM:WA	The National Environmental Management: Waste Act (Act No. 59 of 2008)
NWMS	National Waste Management Strategy (September 2020)
SAWIC	South African Waste Information Centre
SEP	Socio-Economic Profile
SLM	Stellenbosch Local Municipality
WLM	Witzenberg Local Municipality

# 1 INTRODUCTION

## 1.1 BACKGROUND

The National Waste Management Strategy (September 2020) (NWMS) is a legislative requirement of the National Environmental Management: Waste Act (NEM:WA) (Act 59 of 2008), intended to achieve the objectives of the NEM:WA and seeking to systematically improve waste management in South Africa. This approach recognises the widely adopted waste hierarchy (Figure 1-1), of which the primary objective is to reduce the amount of waste going to landfills. This approach suggests disposal of waste as a last resort.



**Figure 1-1: National Waste Management Strategy (NWMS) hierarchy**

The development of an Integrated Waste Management Plan (IWMP) is a statutory requirement of the NEM:WA (Act 59 of 2008) that has been promulgated and came into effect on 01 July 2009. Its goal is the transformation of the historic methodology of waste management, i.e. collection and disposal, to a sustainable practice focusing on waste avoidance and environmental sustainability. The development of the IWMP is necessary as it is an integral tool to identify current needs and acts as a guide towards sustainable waste management. The IWMP was developed in line with the DM's IDP strategic objectives.

The Cape Winelands District Municipality (CWDM) is situated in the Western Cape Province, next to the Cape Metropolitan area and stretches over 22 309 km<sup>2</sup>. The district includes five local municipalities (LMs), namely Drakenstein, Stellenbosch, Witzenberg, Breede Valley and Langeberg. The area is one of the pearls of South Africa's rural and small-town sub-regions, but disparate with a relatively high and diverse level of development.



Figure 1-2: Cape Winelands District Municipality (Yes Media, 2020)

Delta Built Environment Consultants (Delta BEC) was appointed by the CWDM to compile the 4<sup>th</sup> generation CWDM IWMP (2021-2027).

## 1.2 PURPOSE OF REPORT

The purpose of this report is to analyse and quantify all aspects related to current waste management practices carried out within the District Municipality, as well as the private sector, with the view of using this information as a baseline for future planning.

## 1.3 STRUCTURE OF REPORT

The report comprises the following sections:

- Section 2: Status quo study approach
- Section 3: Relevant legislation
- Section 4: Status quo study findings

- Section 5: Gap and needs analysis
- Section 6: Desired end state
- Section 7: Implementation plan
- Section 8: IWMP monitoring and review
- Section 9: Public participation process
- Section 10: Conclusion
- Section 11: References
- Appendices.

## 2 STATUS QUO STUDY APPROACH

A phased approach was used to generate the status quo report, as detailed below:

- IWMP Review: the CWDM 2015 IWMP and IWMPs for all five local municipalities were reviewed for content.
- Literature review.
- Questionnaires: questionnaires were developed and sent to private companies and industries for information sourcing.
- Site visits: the site visits took place during the week of 31 August 2020 to 04 September 2020.

The status quo section of this report has drawn information from a few sources including interviews with municipalities and stakeholders, IWMPs, IDPs, IPWIS and SAWIS records, and LMs' records and literature sources. It is assumed that the information given verbally in interviews and documented information are accurate.

## **3 RELEVANT LEGISLATION**

This chapter of the report details the roles and responsibilities in terms of waste management at national, provincial, district and municipal level that inform and assist integrated waste management.

### **3.1 ROLES AND RESPONSIBILITIES**

#### **3.1.1 NATIONAL GOVERNMENT**

The National Government is tasked with promulgating NEM:WA, which is to be aligned with the Constitution (as well as other related legislation). Under NEM:WA, they then promulgate various sets of regulations dealing with various specialist matters in more detail, under which they then promulgate norms and standards that is going into more detail on specific matters than what regulations do.

#### **3.1.2 PROVINCIAL GOVERNMENT**

The provincial governments are tasked with the implementation of the National Environment Management: Waste Act (NEM:WA), Waste Management Regulation and the National Waste Management Strategy, Norms and Standards (NWMS). The Constitution requires provincial government to monitor and provide support to municipalities in the province, and to see to the implementation of waste-related regulations and strategies.

#### **3.1.3 DISTRICT MUNICIPALITIES**

The Municipal Structures Act (Act 117 of 1998) assigns a function of waste disposal to district municipalities. Not all district municipalities are fulfilling this role. However, when the need arises for a regional site, the district can perform this role.

#### **3.1.4 LOCAL GOVERNMENT**

The NEM:WA (Act 59 of 2008) requires local authorities to implement mechanisms for the provision of waste collection services including collection, storage and disposal. Local authorities are also required to facilitate recycling and waste diversion from landfill and manage waste information appropriately.

### **3.2 STRATEGIC LINKAGES IN TERMS OF WASTE MANAGEMENT ON INTERNATIONAL, NATIONAL, PROVINCIAL AND LOCAL LEVEL**

#### **3.2.1 INTERNATIONAL TREATIES**

The following list of international treaties were considered:

- Basel Convention
- Rotterdam Convention

- Stockholm Convention.

### **3.2.1.1 The Basel Convention**

The Basel Convention (1989) is a global agreement that seeks to address the transboundary movement of hazardous waste. It also aims to ensure that strict controls are in place when any transboundary movement and disposal of hazardous waste does occur and ensures that it is undertaken in an environmentally sound and responsible manner.

The Basel Convention, held on 22 March 1989, came into effect during May 1992 after ratification by the prerequisite number of countries. South Africa ratified the Convention in 1994, with the Department of Environmental Affairs (DEA) being the focal point for the convention. Whilst South Africa subsequently acceded to this Convention, no legislation was passed at the time to give effect to it. The second Basel Convention, held on 08 October 2005, set standards for the control of transboundary movements of hazardous wastes and their disposal, setting out the categorisation of hazardous wastes and the policies for their disposal between member countries. South Africa accedes to this convention and implements its provisions.

The main objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. The Convention specifically aims to reduce hazardous waste generation, promote environmentally sound management of hazardous wastes and restrict transboundary movements of hazardous wastes, and provides a regulatory system that applies to cases where transboundary movement of hazardous waste is permissible (United Nations Environment Programme, 2020).

### **3.2.1.2 The Rotterdam Convention**

The Rotterdam Convention promotes and enforces transparency in the importation of hazardous chemicals and whilst it explicitly excludes waste, its implementation may lead to bans on listed chemicals. Some of these chemicals may occur in stockpiles of obsolete chemicals such as pesticides that have been identified as a major waste management challenge. Extended producer responsibility schemes will be used to effectively manage obsolete chemicals (United Nations Environment Programme, 2020).

### **3.2.1.3 The Stockholm Convention**

In 1995, the United Nations Environment Programme called for global action to be taken on persistent organic pollutants (POPs), which pose a threat to both health and the environment. As a result, the negotiations for the Stockholm Convention on POPs were initiated and culminated in May 2001, with the convention enforced in May 2004. South Africa accedes to this convention, whereby member countries have agreed to phase out POPs, and prevent their import or export. It imposes restrictions on the handling of all intentionally produced POPs. Parties to the

Convention are also required to undertake the following responsibilities (United Nations Environment Programme, 2020):

- Develop and implement appropriate strategies to identify stockpiles, products and articles in use that contain or are contaminated with POPs
- Manage stockpiles and wastes in an environmentally sound manner
- Dispose of waste in a way that destroys or irreversibly transforms POPs content
- Prohibit recycling, recovery, reclamation, direct reuse or alternative use of POPs
- Endeavour to develop strategies to identify contaminated sites and perform eventual remediation in an environmentally sound manner.

### **3.2.2 NATIONAL ACTS, REGULATIONS AND STRATEGIES**

#### **3.2.2.1 The South African Constitution (Act 108 of 1996)**

Section 24 of the Bill of Rights of the Constitution of South Africa clearly states that everyone has the right to:

- a) An environment that is not harmful to their health or well-being.
- b) Have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:
  - i) Prevent pollution and ecological degradation.
  - ii) Promote conservation.
  - iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The Constitution places an emphasis on the need to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures, e.g. IWMPs. It is within this provision that IWMPs must strive or come up with measures to uphold the rights of all citizens within the jurisdiction of the municipality and should enhance and promote environmental protection from any form of degradation as enshrined by the South African Constitution.

#### **3.2.2.2 The National Environmental Management Act (Act 107 of 1998)**

NEMA is the cornerstone of all environmental legislation in South Africa. The purpose of NEMA is to uphold the provisions of Section 24 of the Bill of Rights (the Constitution of the Republic of South Africa). It aims to promote and uphold the rights of South African citizens to live in an environment that is not harmful to its health or well-being.

NEMA places sustainable development at the centre of every development process that has the potential to have an impact on social, economic and environmental matters, whereby it requires the integration of social, economic and environmental

factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations.

### **3.2.2.3 The Hazardous Substances Act (Act 15 of 1973)**

This Act and its regulations provide for the control of substances that may cause injury or ill-health to or death of human beings due to their toxic, corrosive, irritant, strongly sensitising or flammable nature, the division of such substances or products into groups in relation to the degree of danger, to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification and disposal of such substances and products.

### **3.2.2.4 The National Environmental Management: Waste Act, 2008 (Act 59 of 2008)**

The first waste-specific legislation published in South Africa was the National Environmental Management: Waste Act (NEM:WA). It provided the mechanism to regulate the waste value chain aiming to minimise adverse effects on human health and the environment. The National Department of Environmental Affairs (DEA) is the regulatory body for the licensing of hazardous waste facilities, according to NEM:WA's Chapter 5. In addition, the management of hazardous waste is included in the concurrent legislative competence of both national and provincial government assigned by the South African Constitution with respect to environment and pollution control.

### **3.2.2.5 Waste Classification and Management Regulations (GNR. 634 of August 2013)**

These regulations support and implement the provisions of the NEM:WA and, amongst others, established a procedure and mechanism for the listing of waste management activities that do not require a waste management licence. It also states that waste must be classified according to the South African National Standard Globally Harmonized System of Classification and Labelling of Chemicals (SANS 10234:2008). SANS 10234:2008 is a standard that classifies waste according to the physical and health hazards specific substances could potentially pose (including hazards to the aquatic environment).

GNR. 634 also talks to the requirements for disposal, record keeping and re-classification. For example, it is stated that:

*'Waste must be classified within 180 days of generation and should be re-used, recycled, recovered, treated and/or disposed of within 18 months of generation.'*

### **3.2.2.6 The National Environmental Management: Waste Amendment Act, 2014 (Act 26 of 2014)**

On 02 June 2014, an amendment of Section 1 of the NEM:WA, as amended by the National Environmental Management: Waste Amendment Act (NEM:WA), was enacted whereby Schedule 3: Defined Wastes was inserted. The purpose of Schedule 3 is to define all types of waste and to categorise them to assist with the

identification of wastes. This schedule is divided into Category A: Hazardous Waste and Category B: General Waste. Schedule 3, Category A defines hazardous waste as follows:

*“Hazardous waste’ means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment and includes hazardous substances, materials or objects within business waste, residue deposits and residue stockpiles.’*

### **3.2.2.7 The Municipal Systems Act (Act 32 of 2000)**

In terms of Section 25 of the MSA, each municipal council must, within a prescribed period after the start of its elected term, adopt a single, inclusive and strategic plan (IDP) for the development of the municipality. The IDP is required to include sectoral environmental plans, which would be an IWMP for waste management. In their IDPs, municipalities are required to ensure proper resource allocation to achieve the targets set in the respective plans.

### **3.2.2.8 The Local Government: Municipal Structures Act (Act 117 of 1998)**

This Act provides for an appropriate division of functions and powers between categories of municipalities, which include solid waste disposal sites, as far as it relates to:

- a) The determination of a waste disposal strategy.
- b) The regulation of waste disposal.
- c) The establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in the district.

### **3.2.2.9 The National Environmental Management: Waste Act, 2008 (Act 59 of 2008):**

The first waste-specific legislation published in South Africa was the National Environmental Management: Waste Act (NEM:WA). It provided the mechanism to regulate the waste value chain aiming to minimise adverse effects on human health and the environment. The National Department of Environmental Affairs (DEA) is the regulatory body for the licensing of Hazardous Waste Facilities, according to NEM:WA’s Chapter 5. In addition, the management of hazardous waste is included in the concurrent legislative competence of both national and provincial government assigned by the South African Constitution with respect to environment and pollution control.

#### **3.2.2.9.1 Waste Classification & Management Regulations (R. 634 August 2013)**

This regulation provides for the classification of waste-by-waste generators in accordance with SANS 10234:2008, within 180 days of generation. The GHS classifies waste in terms of its physical and health hazards as well as the hazards it presents to the aquatic environment. Waste that was previously classified in terms

of the Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (1998) must now be classified in terms of SANS 10234:2008. Waste listed in Annexure 1 of the WCMR does not require classification in terms of SANS 10234:2008.

**3.2.2.9.2 *The National Environmental Management: Waste Act: National Standard for Assessment of Waste (R. 635 August 2013)***

The standards prescribe the requirements for the assessment of waste prior to disposal to landfill, as required by Regulation 8 (1) (b) and (c) of the Waste Classification and Management Regulations of 2013. The standards classify waste into four categories based on its total concentration (TC) and leachable concentration (LC) in comparison with the acceptable limits.

**3.2.2.9.3 *The National Environmental Management: Waste Act: National Standard for Disposal of Waste to Landfill (R. 636 August 2013)***

The standard provides for the new classification of landfill sites and requirements for containment and barrier designs. The new classifications are Class A, B, C and D. The standards prescribe types of waste (as per the classification of waste by R.635) to be disposed at different classes of landfill sites. The standards also provide for waste disposal restrictions on certain types of waste such as tyres, asbestos, persistent organic pollutants (POPs) and organic waste.

**3.2.2.9.4 *National Environmental Management: Waste Act: National Waste Information Regulations (January 2013)***

Waste generators are obliged to report waste quantities generated, diverted and treated. This is required to ensure efficient planning for waste management activities. In terms of the regulations, certain requirements must be complied with during reporting, such as the name of the facility, waste types and quantities generated, percentage of waste diverted, etc.

**3.2.2.9.5 *National Environmental Management: Waste Act (59/2008): Waste Tyre Regulations (29 September 2019)***

The aim of this regulation is to provide guidelines for the safe management of tyre waste. It outlines the prohibitions, registration of waste generators, duties of tyre dealers, the waste tyre stockpile abatement plan and the storage of waste tyres.

**3.2.2.9.6 *National Environmental Management Act: NEMA, EIA Regulations (18 June 2010)***

The EIA Regulations regulate the procedure and criteria relating to the preparation, evaluation, submission, processing and approval of applications for environmental authorisations for the commencement of activities, subjected to environmental impact assessment, to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts. Waste activities that should be subjected to EIA are prescribed in GN. 921, NEM:WA schedule.

**3.2.2.9.7 The National Environmental Management: Waste Act: Draft National Norms and Standards for Organic Waste Composting (4 September 2019)**

The norms and standards are aimed at controlling the composting of organic waste at facilities falling within certain thresholds as described in Paragraph 3 of these norms and standards to prevent or minimise potential negative impacts on the biophysical and socio-economic environment.

**3.2.2.10 The White Paper on Integrated Pollution and Waste Management for South Africa (17 March 2000)**

The Government Gazette 20978, 17 March 2000 – DEA National Waste Management Policy focused on a holistic and integrated system and process of management, aimed at pollution prevention and minimisation at source, managing the impact of pollution and waste on the receiving environment, and remediating damaged environments.

**3.2.2.11 The National Waste Management Strategy (2020)**

The NWMS (2020) was approved by Cabinet on 9 September 2020. This strategy was developed in alignment with the National Environmental Management: Waste Act and builds on the successes and lessons learnt from the NWMS (2011).

The NWMS (2020) is broadly focused on preventing waste and diverting waste from landfill by leveraging the concept of the Circular Economy to drive sustainable, inclusive economic growth and development in the waste sector, while reducing the social and environmental impacts of waste. Its implementation plan will create jobs in the waste sector and increase awareness and compliance around waste.

The following are the three strategic goals in the revised NWMS (2020):

- Waste Minimisation – the aim is to prevent waste and where waste cannot be prevented, 40% should be diverted from landfill within five years through reuse, recycling, recovery and alternative waste treatment: 25% of waste reduction in waste generation; and 20% waste reused in the economic value chain.
- Effective and Sustainable Waste Services – this would see all South Africans living in clean communities with waste services that are well managed and financially sustainable.
- Waste Awareness and Compliance – the aim is to create a culture of compliance with zero tolerance of pollution, litter and illegal dumping.

Among the significant strategic shifts from the 2011 strategy in the NWMS 2020 include addressing the role of waste pickers and the informal sector in the Circular Economy, promoting product design packaging that reduces waste or encourages reuse, repair and preparation for recycling, and support markets for source separated recyclables. NWMS 2020 also investigates potential regulatory or economic interventions to increase participation rates in residential separation at source programmes, alongside investing in the economies associated with

transporting of recyclables to waste processing facilities and addressing the skills gaps within the sector.

The strategy also requires engagement with the National Treasury regarding the operational expenditures for municipalities associated with implementing the NWMS and Waste Act.

### **3.2.2.12 National Organic Waste Composting Strategy: Draft Strategy Report and Guideline (February 2013)**

The draft strategy aims to ensure (where viable) that organic waste generated within South Africa is diverted from landfill sites for composting, as one alternative treatment method, through integrated and sustainable waste management planning.

## **3.2.3 PROVINCIAL PLANS, STRATEGIES AND GUIDELINES**

### **3.2.3.1 Western Cape Integrated Waste Management Plan (2017-2022)**

The Western Cape outlined four goals in the 2<sup>nd</sup> Generation IWMP (2017-2022). The CWDM's goals and targets were developed in line with the following four goals from the Western Cape IWMP:

- Goal 1: Strengthened education, capacity and advocacy towards integrated waste management
- Goal 2: Improved integrated waste management planning and implementation for efficient waste services and infrastructure
- Goal 3: Effective and efficient utilisation of resources
- Goal 4: Improved compliance with environmental regulatory framework.

These four goals were identified by the Western Cape to address the following:

- Promoting sustainable waste management – this includes waste avoidance, cleaner production, waste minimisation, resource-use efficiency, resource recovery and recycling
- Diverting waste from waste management disposal facilities
- Minimising adverse environmental and social impacts of waste management, particularly for the vulnerable
- Providing guidance and support for both municipalities and industries in developing IWMPs that promote integrated waste management.

### **3.2.3.2 Western Cape Green Economy Strategy Framework (2013)**

The 2013 Western Cape Green Economy Strategy Framework aims to achieve the double dividend of optimising green economic opportunities and enhancing environmental performance.

The strategy identifies three high-level priorities for green growth:

- 1) Natural gas and renewables
- 2) Financial infrastructure
- 3) Green jobs – including the waste sector.

### **3.2.3.3 Western Cape Diversion Targets for Organic Waste Management (2018)**

Organic waste is identified as a problematic waste stream in the Western Cape, with more than 37% of waste generated in the province being organic waste. Landfilling of organic waste results in loss of airspace, methane and leachate generation, as well as odour and health impacts.

Diversion of organic waste from landfill can reduce these negative impacts and can also aid in job creation at waste management facilities. Compost and biochar produced from organic waste can be used as an alternative to fertilisers to improve soil condition.

The Department of Environmental Affairs and Development Planning (DEA&DP) proposed a 50% diversion from landfill sites by 2022, and a landfill ban on organic waste to landfill by 2027.

### **3.2.3.4 Guideline for Management of Abattoir Waste in Western Cape (2015)**

The guideline on the management of abattoir waste in the Western Cape was developed by the DEA&DP as one of the recommendations stemming from the status quo study of abattoir waste conducted in 2015.

The guideline provides an overview of the current status quo of abattoir waste, treatments and disposal methods.

### **3.2.3.5 Cape Winelands District Municipality Spatial Development Framework (SDF) (2018/2019)**

The CWDM SDF proposes the following implementation strategies:

- Develop waste reduction strategies.
- Prioritise public awareness in terms of waste reduction and avoidance.
- Develop a regional landfill site for the western and eastern portion of the CWDM area. If a regional landfill site for the Western Portion of the CWDM is not practical, then the stalled Drakenstein Municipal Waste-to-Energy Programme must be continued. The mentioned programme must absorb the waste generated on the western portion of the CWDM.
- Investigate alternative technologies that can assist with the disposal of waste.

### **3.2.3.6 Cape Winelands District Municipality Integrated Development Plan (IDP) (2017-2021)**

Strategic Goal 4 of the CWDM IDP enables a resilient, sustainable, quality and inclusive living environment by promoting sustainable infrastructure such as waste

management, which will then foster social and economic opportunities. This goal also promotes planning services that are support systems to the local municipalities.

### 3.2.4 LOCAL BY-LAWS

#### 3.2.4.1 Cape Winelands District Municipality By-Laws

The Cape Winelands District Municipality does not manage waste collection or disposal; therefore, it does not have Solid Waste Management By-Laws. However, Chapter 8 of the Municipal Health By-Laws of the Cape Winelands District Municipality relates to waste management. The Waste Management section is outdated and needs to be reviewed to include the NEM:WA and the NWMS. The section reads as follows:

##### **Part 1: General provisions regarding recovery, storage and disposal of waste**

###### *Recovery, storage and disposal of waste*

- 4) *Waste must be recovered, stored, transported and disposed of —*
  - a) *without endangering human health*
  - b) *without the use of processes or methods likely to harm or pollute the environment; and*
  - c) *in a manner that does not create a health nuisance.*
- 5) *A person who contravenes subsection (1) commits an offence.*

##### **Part 2: Hazardous Waste**

###### *Applicable legislation*

*The municipality, taking cognizance of the provisions of the Environment Conservation Act, 1989 (Act No. 73 of 1989) the Hazardous Substances Act, 1973 (Act 15 of 1973), the National Health Act, 61 of 2003, and the regulations made under these Acts, adopts the provisions in this Part.*

###### *Storage of hazardous waste*

- 6) *An empty container in which hazardous waste such as, but not limited to, pesticides was stored is to be treated as hazardous waste, and —*
  - a) *must be stored in such a manner that —*
    - i) *no pollution of the environment occurs at any time;*
    - ii) *no health nuisance is created at any time;*
  - b) *while being stored on site, must be clearly marked or labelled with the words “Hazardous Waste”;*
  - c) *the owner or occupier of the land must fence off the storage area to prevent unauthorised access; and*
  - d) *shall be dealt with as Class 6 waste as described in the Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (Second Edition, 1998) as published by the*

*Department of Water Affairs and Forestry and as amended from time to time.*

- 7) *A person who contravenes a provision of subsection (1)(a) to (d) commits an offence.'*

#### **3.2.4.2 Langeberg By-Laws**

The Langeberg Local Municipality (LLM) is currently (2021) in the process of developing integrated waste management by-laws.

#### **3.2.4.3 Witzenberg By-Laws**

The Witzenberg Local Municipality (WLM) currently (2021) has sufficient integrated waste management by-laws under Section 156(2) of the Constitution of the Republic of South Africa (1996). The WLM by-laws (2020) refer to the development of an integrated refuse management plan, the provision of waste management services, handling of recyclable waste, prohibitions in terms of waste management, handling different types of waste, and compliance and enforcement.

#### **3.2.4.4 Breede Valley By-Laws**

The Breede Valley Local Municipality (BVLM) made a solid waste by-law dealing with the containment and disposal of solid waste in terms of Section 13 of the Local Government Systems Act, 2000 (Act 32 of 2000). The by-law was published in the Provincial Gazette Extraordinary 6560 of Wednesday, 22 October 2008.

The by-law must be updated to an integrated waste management by-law.

#### **3.2.4.5 Drakenstein By-Laws**

The Drakenstein Local Municipal (DLM) By-Laws relating to solid waste management were reviewed and replaced with their Integrated Waste Management By-Law. The DLM enacted their Integrated Waste Management By-Law, which was published in the Provincial Gazette Western Cape: 7184 on 4 October 2013. The municipality is adapting (approved by Council) its by-law for illegal dumping to make provision for the confiscation of vehicles used by these perpetrators to commit illegal dumping, and to be able to issue them with substantial fines.

#### **3.2.4.6 Stellenbosch By-Laws**

The Stellenbosch Local Municipality's (SLM) Integrated Waste Management By-Laws are currently in draft format and are expected to be approved by council soon.

## 4 STATUS QUO STUDY FINDINGS

This section of the report will address the following topics:

- Demographic profile
- Geographic area
- Waste management cost and financing
- Waste categories and generation
- Service delivery
- Compliance and enforcement
- Waste avoidance, reduction and recycling
- Waste awareness and education
- Operational structure and staff capacity.

### 4.1 DEMOGRAPHIC PROFILE

The Cape Winelands District Socio-Economic Profile (CWDM SEP, 2019) report, drafted by the Western Cape Department of Social Development, along with the CWDM Integrated Development Plan (IDP, 2017-2022), was used to determine the demographic profile of the CWDM.

#### 4.1.1 POPULATION PROFILE

The population of each LM is illustrated in Table 4-1. The population for 2019 was extracted from each LM’s SEP 2019 report. The projected population from 2020 to 2027 is based on the assumption that the average population growth rate of 1.2% will remain unchanged. Currently (2021), the CWDM has an estimated population of 930 725.

**Table 4-1: CWDM population**

MUNICIPALITY	POPULATION GROWTH RATE (SEP, 2019)	2019 (SEP, 2019)	2020	2021	2022	2023	2024	2025	2026	2027
<b>Witzenberg</b>	2%	142 466	145 315	148 222	151 186	154 210	157 294	160 440	163 649	166 922
<b>Langeberg</b>	2%	117 450	119 799	122 195	124 639	127 132	129 674	132 268	134 913	137 611
<b>Breede Valley</b>	1%	186 796	188 664	190 551	192 456	194 381	196 324	198 288	200 271	202 273
<b>Drakenstein</b>	1%	284 475	287 320	290 193	293 095	296 026	298 986	301 976	304 996	308 046
<b>Stellenbosch</b>	1.8%	186 274	189 627	193 040	196 515	200 052	203 653	207 319	211 051	214 850
<b>Total for CWDM</b>	1.2%	183 492	186 145	188 840	192 959	197 186	200 058	202 976	205 940	

## 4.1.2 SOCIO-ECONOMIC GROUPS AND INCOME DISTRIBUTION

### 4.1.2.1 Age distribution

Table 4-2 provides the CWDM's population composition per age category. These groupings are also expressed as a dependency ratio, which in turn indicates those who are part of the workforce (ages 15-65+) and those who are depending on them (children and seniors). A higher dependency ratio means more pressure on social systems and the delivery of basic services (CWDM SEP, 2019).

**Table 4-2: CWDM age categories (CWDM SEP, 2019)**

YEAR	CHILDREN: 0-14 YEARS	WORKING AGE: 15-64 YEARS	AGED: 65+	DEPENDENCY RATIO
<b>2011</b>	203 473	543 597	40 416	44.9
<b>2019</b>	242 353	635 316	72 480	49.6
<b>2023</b>	264 459	714 571	91 737	49.8

#### 4.1.2.2 Household size

The average household sizes of each LM for 2019 were extracted from each LM’s SEP 2019 report. The number of households were calculated using the input values of the population in Table 4-1 along with the average household size. The assumption was made that the average household size will remain unchanged.

**Table 4-3: Household size (SEP, 2019)**

MUNICIPALITY	AVERAGE HOUSEHOLD SIZE (SEP, 2019)	2019 (SEP, 2019)	2020	2021	2022	2023	2024	2025	2026	2027
<b>Witzenberg</b>	4.1	34 748	35 443	36 152	36 875	37 612	38 364	39 132	39 914	40 713
<b>Langeberg</b>	4.0	29 363	29 950	30 549	31 160	31 783	32 419	33 067	33 728	34 403
<b>Brede Valley</b>	3.8	49 157	49 648	50 145	50 646	51 153	51 664	52 181	52 703	53 230
<b>Drakenstein</b>	4.3	66 157	66 819	67 487	68 162	68 843	69 532	70 227	70 929	71 639
<b>Stellenbosch</b>	3.6	51 743	52 674	53 622	54 587	55 570	56 570	57 589	58 625	59 680
<b>Total for CWDM</b>	4.0	46 234	46 907	47 591	48 286	48 992	49 710	50 439	51 180	51 933

**4.1.2.3 Income distribution**

Table 4-4 shows the proportion of people that fall within low, middle and high-income brackets in the CWDM. Approximately 52.0% of households in the CWDM fall within the low-income bracket, of which 13.1% have no income. 39.5% of households fall within the middle-income bracket and 8.6% fall in the high-income bracket.

**Table 4-4: CWDM income distribution (IDP, 2017-2021)**

Amount (2016)	Cape Winelands District	
No income	13.1	Low income
R1 – R6 327	1.9	
R6 328 – R12 653	3.5	
R12 654 – R25 306	13.4	
R25 307 – R50 6013	20.1	
R50 614 – R101 225	18.4	Middle Income
R101 226 – R202 450	12.3	
R202 451 – R404 901	8.8	
R404 902 – R809 802	5.7	High income
R809 803 – R1 619 604	2.0	
R1 619 605 – R3 239 208	0.5	
R3 239 209 or more	0.4	

**4.1.3 EMPLOYMENT STATUS AND EDUCATION LEVELS**

Education and training improve access to employment opportunities and help to sustain and accelerate overall development of communities.

**4.1.3.1 Employment status**

The CWDM contributed 385 548 jobs to formal and informal employment in the Western Cape in 2017 (CWDM SEP, 2019).

The agriculture, forestry and fishery sector has been consistently shedding jobs in the CWDM (CWDM SEP, 2019). The tertiary sector, particularly the wholesale, retail trade, catering and accommodation, and finance and businesses services sectors, created more opportunities, which offset the decline in employment that had been experienced in other sectors. This suggests that the performance of service sectors has not only produced more output, but has also created more jobs in the CWDM (CWDM SEP, 2019).

In 2017, the CWDM’s labour force mostly consisted of low-skilled (41.2%) and semi-skilled (38.9%) workers. The low-skilled and semi-skilled categories grew by 3.5% and 3.8%, respectively while the skilled labour segment grew by 3.3%.

Table 4-5: Labour force skill (CWDM SEP, 2019)

CAPE WINELANDS: TRENDS IN LABOUR FORCE SKILLS, 2014-2018				
Formal employment by skill	Skill level contribution (%)	Average growth (%)	Number of jobs	
	2017	2014-2018	2017	2018
Skilled	19.9	3.3	56 199	57 959
Semi-skilled	38.9	3.8	109 646	113 382
Low-skilled	41.2	3.5	116 014	117 175
<b>Total CWD</b>	<b>100.0</b>	<b>3.6</b>	<b>281 859</b>	<b>288 516</b>

Unemployment in the CWDM was significantly lower than the provincial figures for each year (as indicated in Table 4-6). With an average unemployment rate of 8.9% over the period, the CWDM registered unemployment rates 5.8% lower than the provincial average (CWDM SEP, 2019). The unemployment rate in the CWDM has been relatively constant between 2010 and 2018, with a marginal improvement noted between 2017 and 2018. It is worth noting that this rate refers to the narrow definition of unemployment, i.e. the percentage of people that are able to work, but are unable to find employment. In turn, the broad definition generally refers to people that are able to work, but not actively seeking employment (CWDM SEP, 2019).

Table 4-6: CWDM unemployment rates (CWDM SEP, 2019)

WESTERN CAPE: UNEMPLOYMENT RATES (NARROW DEFINITION)											
Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
City of Cape Town	14.8	16.2	17.5	17.7	17.9	18.0	18.4	19.1	20.3	21.2	21.0
West Coast	6.8	8.2	9.6	10.0	9.7	9.2	9.8	8.6	9.6	10.5	10.7
Cape Winelands	6.9	8.1	9.4	9.6	9.4	8.9	9.3	8.3	9.1	9.6	9.5
Overberg	6.6	8.0	9.5	9.8	9.6	9.2	9.6	8.6	9.7	10.2	10.1
Garden Route	13.1	14.2	15.4	15.3	15.1	14.6	14.6	14.1	15.1	15.4	15.2
Central Karoo	20.5	21.4	22.3	22.1	21.6	20.9	21.0	19.6	20.5	21.2	20.7
Western Cape	12.7	14.0	15.4	15.5	15.6	15.5	15.9	15.9	17.1	17.8	17.7

#### 4.1.3.2 Education levels

##### 4.1.3.2.1 Learner enrolment

The average annual growth in learner enrolment for the Western Cape across the period of 2016 to 2018 is expected to be 2.3% (CWDM SEP, 2019). The highest growth in learners is expected to occur in the Overberg District (2.7%) whilst the lowest growth is estimated to be in the CWDM (0.7%). Within the CWDM, most learners are concentrated in the Drakenstein LM area. Stellenbosch LM, however, had the highest average annual learner enrolment growth rate of 1.9% in the

CWDM between 2016 and 2018. Witzenberg LM experienced the lowest learner enrolment growth rate at 0.9%.

**4.1.3.2.2 Educational facilities**

The number of education facilities across the CWDM decreased from 2017 to 2018 with the closing of three facilities (CWDM SEP, 2019). Closures of education facilities can impact negatively on education outcomes given the increase in learner enrolment.

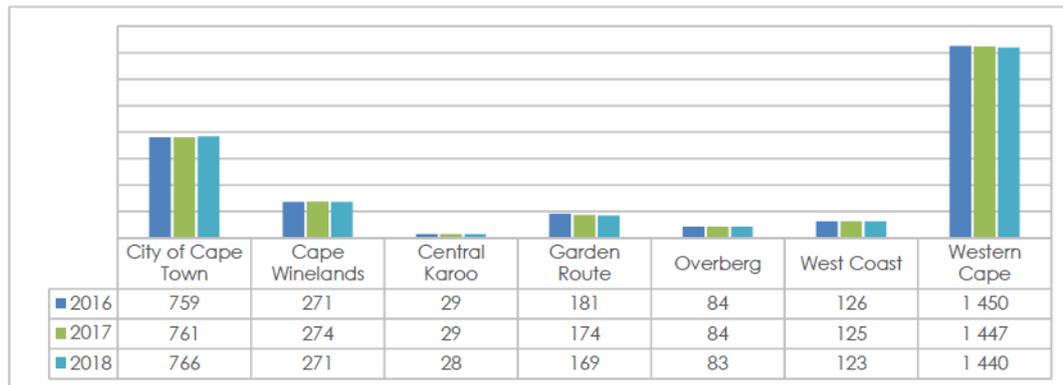


Figure 4-1: Number of educational facilities (CWDM SEP, 2019)

**4.1.3.2.3 Educational outcomes**

The matric pass rate for the CWDM regressed from 2016 (84.7%) to 2017 (82.3%), and further in 2018 (80.6%) (CWDM SEP, 2019). In 2018, Stellenbosch LM achieved the highest pass rate in the district (85.2%), followed by Drakenstein LM (82.1%) and Langeberg LM (79.0%).

Table 4-7: Western Cape matric pass rate (CWDM SEP, 2019)

AREA	2016	2017	2018
City of Cape Town	85.4	81.6	80.9
Cape Winelands	84.7	82.3	80.6
Central Karoo	76.8	79.5	78.5
Garden Route	85.7	82.0	81.3
Overberg	92.6	87.6	82.2
West Coast	87.5	85.9	82.0
Western Cape	85.6	82.1	81.0

**4.1.4 ECONOMIC PERFORMANCE**

The Gross Domestic Product (GDP) for the CWDM amounted to R65 277 billion in 2017 with economic activity mostly focused within the tertiary sector (R42 884 billion, 65.6%) (CWDM SEP, 2019). The overall economy grew by 2.4%

between 2008 and 2017, slightly above the Western Cape average of 2.0% across the same period.

**4.1.5 HEALTHCARE FACILITIES**

In 2018, there was a total of 72 primary healthcare clinics (PHC) in the CWDM, of which 39 are in buildings and 33 are mobile facilities (CWDM SEP, 2019). Although there are no community health centres in the CWDM, there were six community day centres. There are four district hospitals in the CWDM as well as two regional hospitals. The district also has a total of 12 antiretroviral treatment clinics/sites and 22 tuberculosis clinics/sites (CWDM SEP, 2019).

**4.1.6 DEVELOPMENT PROFILES**

**4.1.6.1 Access to basic services**

In 2016, there was a total of 236 006 households within the CWDM, of which 81% had access to housing in the form of a formal dwelling (CWDM SEP, 2019). Households across the CWDM have high access levels to electricity at a rate above the Western Cape average. Water and sanitation access levels are slightly below that of the Western Cape as a whole.

**Table 4-8: Access to formal housing in CWDM (CWDM SEP, 2019)**

COMMUNITY SURVEY 2016	CAPE WINELANDS DISTRICT	WESTERN CAPE
<b>Total number of households</b>	236 006	1 933 876
<b>Formal main dwelling</b>	191 077 81.0%	1 593 891 82.4%
<b>Water (piped inside dwelling/within 200 m)</b>	232 605 98.6%	1 914 055 99.0%
<b>Electricity (primary source of lighting)</b>	228 650 96.9%	1 829 816 94.6%
<b>Sanitation (flush/chemical toilet)</b>	218 483 92.6%	1 866 531 96.5%
<b>Refuse removal (at least weekly)</b>	192 974 81.8%	1 679 520 86.8%

Figure 4-2 illustrates the access to basic services measured in terms of the number of consumers in the CWDM between 2015 and 2018 as reported by Statistics South Africa’s Non-Financial Census of Municipalities.

In 2018, electricity services represented the largest number of consumer units at 164 910. This was followed closely by water at 159 677. Sanitation and solid waste removal had 146 387 and 133 798 consumer units, respectively. The relatively

lower number of consumers receiving solid waste management services can be attributed to the fact that certain areas receiving such services fall outside of the jurisdiction of the various local municipalities (CWDM SEP, 2019).

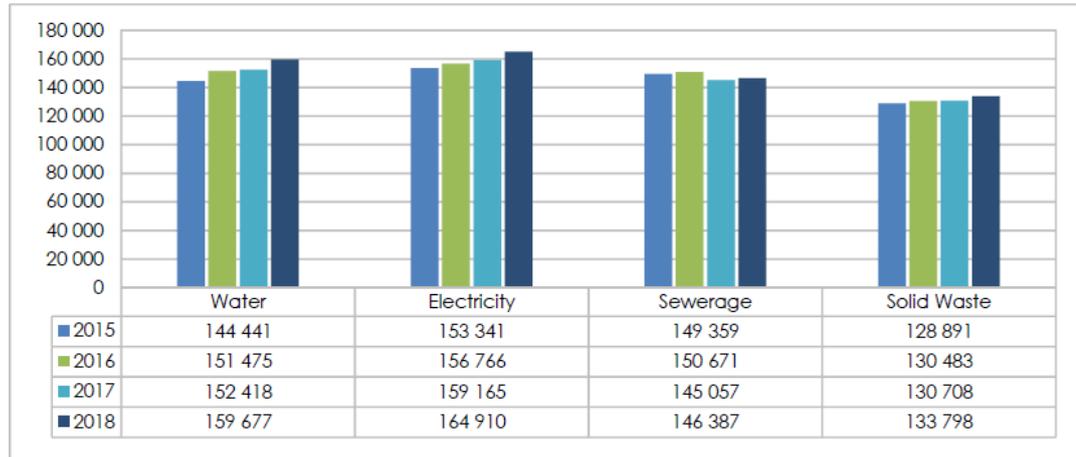


Figure 4-2: CWDM breakdown of access to basic services (CWDM SEP, 2019)

#### 4.1.6.2 Free basic service

Table 4-9 provides the number of indigent households in 2014 and 2015 (IDP, 2017-2021). The CWDM experienced a decrease in the number of indigent households between 2014 and 2015, implying reduced burdens on municipal financial resources.

Table 4-9: CWDM indigent households (IDP, 2017-2021)

AREA	2014	2015	CHANGE
Cape Winelands District	39 368	38 374	-994
Western Cape	413 259	360 238	-53 021

## 4.2 GEOGRAPHIC AREA

The CWDM area has a Mediterranean climate, which is characterised by hot, dry summers and cold to moderate, wet winters. The different conditions climatologically have a direct impact on the various agricultural activities in the sub-regions. Approximately 65% to 80% of the area’s rainfall occurs between April and September. The Cape Winelands mountain ranges are the most significant aspect of the region. Together with several important rivers, they form the spines of the rich valleys, which provide much of the wealth of the Cape Winelands economy.

Cape Winelands District Municipality does not have ownership of any of the public roads in its area. Proclaimed national roads are managed by SANRAL (South African Roads Agency for the National Department), Provincial proclaimed roads are owned by the Western Cape Provincial Government (Department of Transport and Public Works), and municipal streets by the different local authorities. The

following table provides the number of surfaced and gravel provincial roads per LM for the CWDM area:

**Table 4-10: Number of provincial roads in each LM within the CWDM area (CWDM IDP, 2017-2021)**

DM: Cape Winelands	National		Trunk		Main		Divisional		Minor		Totals		Total Provincial roads only	
	Surfaced	Gravel	Surfaced	Gravel	Surfaced	Gravel	Surfaced	Gravel	Surfaced	Gravel	Surfaced	Gravel	Surfaced	Gravel
LM: Stellenbosch	12.49	0.00	0.00	0.00	153.37	0.00	55.45	16.22	22.57	17.36	243.88	33.58	231.39	33.58
	<b>12.49</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>153.37</b>	<b>0.00</b>	<b>55.45</b>	<b>16.22</b>	<b>22.57</b>	<b>17.36</b>	<b>243.88</b>	<b>33.58</b>	<b>231.39</b>	<b>33.58</b>
LM: Drakenstein	29.92	0.00	77.91	0.00	156.23	0.00	96.13	11.59	16.39	12.70	376.58	24.29	346.66	242.97
	<b>29.92</b>	<b>0.00</b>	<b>77.91</b>	<b>0.00</b>	<b>156.23</b>	<b>0.00</b>	<b>96.13</b>	<b>11.59</b>	<b>16.39</b>	<b>12.70</b>	<b>376.58</b>	<b>24.29</b>	<b>346.66</b>	<b>242.97</b>
LM: Witzenberg	0.00	0.00	104.13	0.00	329.26	17.63	138.12	33.66	22.75	95.75	417.93	14.67	417.93	1467.50
	<b>0.00</b>	<b>0.00</b>	<b>104.13</b>	<b>0.00</b>	<b>329.26</b>	<b>17.63</b>	<b>138.12</b>	<b>33.66</b>	<b>22.75</b>	<b>95.75</b>	<b>417.93</b>	<b>14.67</b>	<b>417.93</b>	<b>1467.50</b>
LM: Breede Vallei	124.59	0.00	91.51	0.00	83.18	0.00	139.80	14.61	55.80	21.01	494.88	35.63	370.29	356.38
	<b>124.59</b>	<b>0.00</b>	<b>91.51</b>	<b>0.00</b>	<b>83.18</b>	<b>0.00</b>	<b>139.80</b>	<b>14.61</b>	<b>55.80</b>	<b>21.01</b>	<b>494.88</b>	<b>35.63</b>	<b>370.29</b>	<b>356.38</b>
LM: Langeberg	2.39	0.00	113.96	0.00	244.32	58.08	81.86	28.65	9.82	45.18	394.27	79.65	391.88	796.55
	<b>2.39</b>	<b>0.00</b>	<b>113.96</b>	<b>0.00</b>	<b>244.32</b>	<b>58.08</b>	<b>81.86</b>	<b>28.65</b>	<b>9.82</b>	<b>45.18</b>	<b>394.27</b>	<b>79.65</b>	<b>391.88</b>	<b>796.55</b>
<b>TOTAL</b>	<b>169.39</b>	<b>0.00</b>	<b>387.51</b>	<b>0.00</b>	<b>73.19</b>	<b>234.45</b>	<b>51.13</b>	<b>898.60</b>	<b>12.73</b>	<b>1763.97</b>	<b>192.75</b>	<b>2896.98</b>	<b>1758.15</b>	<b>2896.98</b>

### 4.3 WASTE MANAGEMENT COST AND FINANCING

The CWDM does not provide any waste management services. The CWDM budgeted a total of R2 000 000 for solid waste management for the 2020/21 financial year. The budget will be utilised for the updating of the IWMP and to have an Article 78 investigation undertaken for a regional landfill site. An amount of R2 000 000 is currently provided for in the 2021/22 and 2022/23 financial years as part of the Medium-Term Revenue and Expenditure Framework (MTREF) budget.

### 4.4 WASTE CATEGORIES AND GENERATION

There are no waste disposal facilities managed by the CWDM. Each LM is in charge of waste management within their respective areas of jurisdiction.

#### 4.4.1 WASTE CATEGORIES GENERATED

Table 4-11 provides the categories of waste generated within the CWDM.

**Table 4-11: Categories of waste generated within CWDM**

CATEGORIES	DESCRIPTION
<b>General waste</b>	Domestic general waste: <ul style="list-style-type: none"> <li>Domestic waste generated by households. This waste usually contains recyclable materials, non-recyclable materials, garden refuse and construction and demolition (C&amp;D) waste.</li> </ul>
	Business general waste: <ul style="list-style-type: none"> <li>Business general waste typically includes all waste generated by, for instance, supermarkets and other businesses that is either hazardous or non-hazardous. This waste usually contains high percentages of recyclable materials, depending on the type of business.</li> </ul>
	Industrial general waste: <ul style="list-style-type: none"> <li>Industrial general waste typically includes all waste generated by, for instance, manufacturing and other industries that is either hazardous or non-hazardous. This waste may contain high percentages of recyclable materials, depending on the type of industry.</li> </ul>
<b>Organic waste</b>	Garden refuse and food waste.
<b>Construction and demolition (C&amp;D) waste</b>	Concrete, mortar, bricks, wood, insulation materials, gypsum, etc. generated from construction and demolition sites.
<b>Health care risk waste (HCRW)</b>	Discarded blood and human tissue, sharps, infectious materials, expired pharmaceuticals, etc.
<b>Hazardous waste</b>	Used mineral oils, solvent residues, paint and resin waste, organic chemical residues, sewage sludge and expired agricultural chemicals (pesticides), etc.
<b>Other waste types</b>	This includes waste produced by agricultural activities and abattoirs as well as waste tyres.

#### 4.4.2 DOMESTIC WASTE PROFILE

Waste characterisation studies have been conducted in all the local municipalities within the district. Table 4-12 provides a summary of the results from each waste characterisation study. Chart 4-1 provides an average percentage of waste generated in the CWDM for each waste category.

**Table 4-12: Waste characterisation studies summary results**

WASTE CATEGORY	WITZENBERG (2019)	LANGEBERG (2016)	BREED VALLEY (2020)	DRAKENSTEIN (2019)	STELLENBOSCH (2017)	CWDM AVERAGE
<b>Plastics</b>	13%	28%	20%	9%	23%	16%
<b>Paper and cardboard</b>	12%	23%	17%	12%	20%	15%
<b>Glass</b>	10%	5%	7%	9%	11%	8%
<b>Metals</b>	3%	6%	2%	2%	2%	4%
<b>Organics (food and green waste)</b>	37%	16%	42%	48%	25%	39%
<b>Composite packaging/tetrapak</b>	4%	3%	0%	6%	0%	3%
<b>E-waste (electronic/electrical)</b>	0%	0%	0%	0%	0%	0%
<b>Household hazardous waste</b>	11%	2%	0%	0.3%	0%	3%
<b>Nappies, sanitary towels and condoms</b>	0%	4%	3%	9%	0%	4%
<b>Textiles</b>	4%	0%	2%	0%	5%	2%
<b>Other</b>	6%	13%	6%	4%	14%	8%

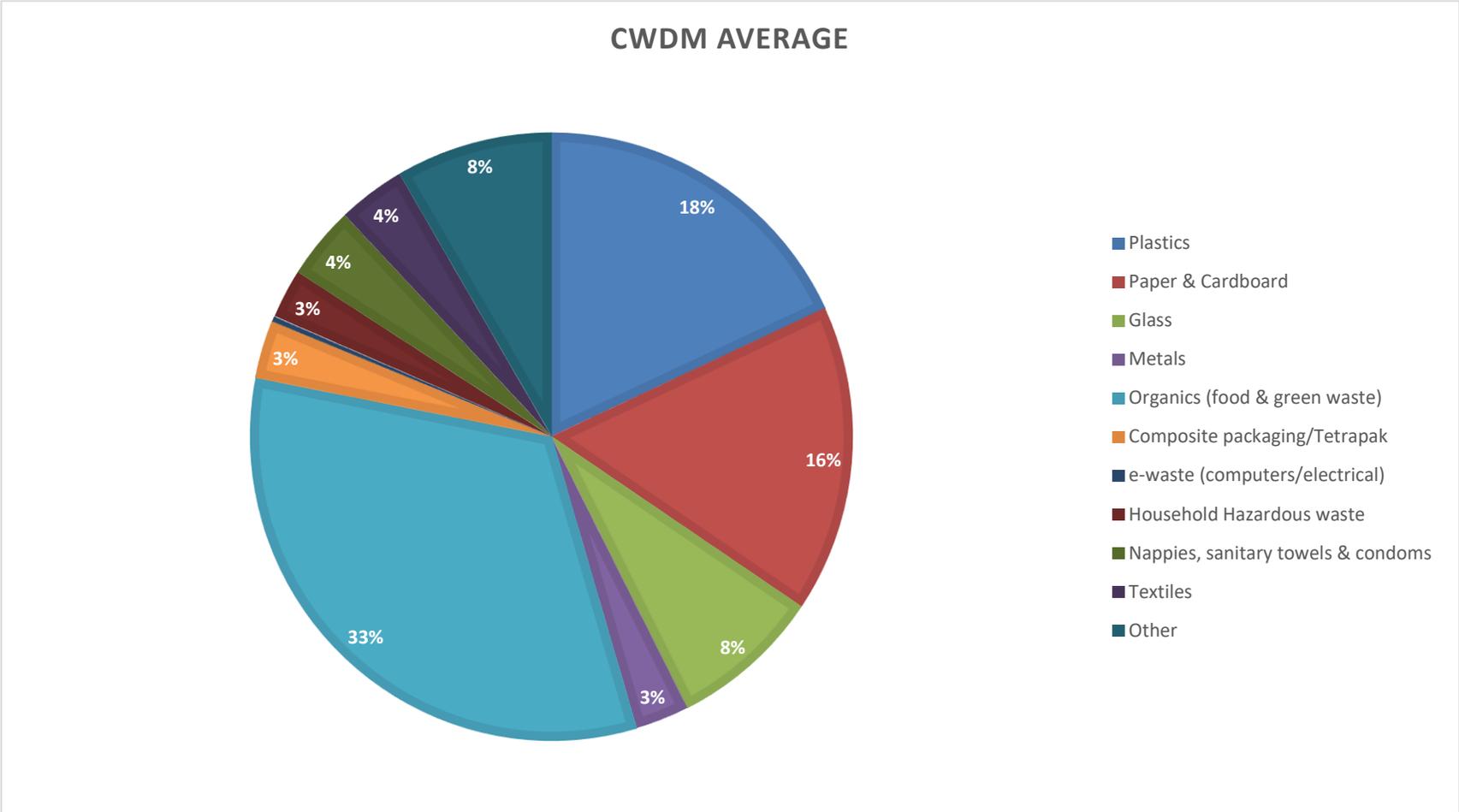


Chart 4-1: Average percentage of waste per category for the CWDM

### 4.4.3 INDUSTRY WASTE PROFILE

The industry waste profile was determined by reviewing the IWMPs of the respective local municipalities in the district, as well as by sourcing data through questionnaires that were sent out to industrial waste generators.

For the purposes of this study, Table 6: Schedule 3 of the National Environmental Management: Waste Amendment Act, 2014 (Act 26 of 2014): Category A: Hazardous Waste (refer to Appendix A) was used to determine the various industrial groups potentially generating hazardous waste in the study area.

Schedule 3 identifies 17 industrial groups, sub-divided into 86 waste fractions. This study established that businesses and the industry in CWDM generate hazardous waste categorised under 4 out of the potential 17 industrial groups listed in Schedule 3.

These are:

- Industrial Group 1: Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing.
- Industrial Group 9: Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks.
- Industrial Group 12: Oil wastes and wastes of liquid fuels (except edible oils).
- Industrial Group 16: Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care).

Questionnaires were sent out to industries within the CWDM to indicate the type of waste generated, the disposal method and the mass generated. The information received in response to the questionnaires, along with information captured during previous studies, was used to provide an overview of the current situation regarding these waste types. The information from Industrial Group 16 was received from Compass Medical Waste Services, the primary HCRW service provider in the CWDM.

Table 4-13 provides the number of questionnaires sent out to the industrial groups and the number of completed questionnaires received to date (28 October 2020).

**Table 4-13: Number of questionnaires sent and completed questionnaires received**

INDUSTRIAL GROUP	SUBGROUP	NO. OF QUESTIONNAIRES SENT	NO. OF QUESTIONNAIRES RECEIVED
<b>Industrial Group 1</b>	Food packaging factories, wineries, farms	8	1

INDUSTRIAL GROUP	SUBGROUP	NO. OF QUESTIONNAIRES SENT	NO. OF QUESTIONNAIRES RECEIVED
<b>Industrial Group 9</b>	Paint store	4	0
<b>Industrial Group 12</b>	Filling stations and vehicle workshops	8	4
<b>Industrial Group 16</b>	Medical facilities (hospitals and clinics)	Not required – data sourced from Compass	-

The questionnaire received from a food packaging company called APL Cartons (Pty) Ltd situated in the BVLM indicated that their average cardboard waste generation per month is 3 000 tonnes. The cardboard and general business waste is stored on site and collected by Beirowplas Recycling.

#### 4.4.4 HAZARDOUS WASTE

Information on the mass of hazardous waste generated is not easily accessible. The CWDM includes large agricultural areas. Hazardous waste from these areas includes fertiliser, chemical packaging and expired pesticides. The management of chemical packaging waste is an important environmental, health and safety issue. Of particular concern are the containers from pesticide or herbicide chemicals. Typically, farmers are known to burn these empty plastic chemical containers as well as empty plastic fertiliser bags in open fires on farms, which is in turn resulting in significant air pollution.

- In the WLM, household hazardous waste such as batteries and small fluorescent lights are assumed to be included in the general waste, which is disposed of at the Tulbagh or Op-die-Berg landfill sites. From the waste characterisation study conducted in WLM in 2019, 11% of the waste stream consists of household hazardous waste.
- There were, at the time of the investigations (2020), no hazardous waste generators registered within the BVLM and no tonnages were reported to the BVLM.
- In LLM, household hazardous waste is assumed to form part of the general waste stream, which is disposed of at the Ashton landfill site.
- The collection and appropriate treatment/disposal of household hazardous waste in the DLM is not a priority specifically identified by the municipality, although provision is made for members of the public to take such items to the Paarl transfer station. The hazardous waste generated in DLM is then transported to the Vissershok Waste Management Facility in Cape Town for treatment/disposal. The waste characterisation study indicated that less than 1% (0.3%) of the household waste stream was made up of hazardous waste.

- The hazardous waste generated in the SLM is transported to the Vissershok Waste Management Facility (VWMF). It has a Class A (previously H:H) classification operating licence from the Department of Environmental Affairs.

The hazardous waste generated from Industrial Group 12 (as indicated in Table 4-13) mainly consists of used oil from servicing vehicles as well as used oil bottles purchased by a client. In the WLM, Oilkol collects the used oil from clients like service stations, transport companies, etc. in bulk containers and transports it to Exol Oil Refinery, where the oil is then processed and sold as Industrial Furnace Fuel (IFF). In the LLM, the Rose Foundation is currently (2020) responsible for establishing a contractor to collect and recycle the waste oil from vehicle service stations in LLM.

#### 4.4.5 HEALTH CARE RISK WASTE

The major health care risk waste (HCRW) generators in the LMs are the private and public hospitals and clinics. The LMs do not provide HCRW treatment and disposal services, resulting in it being the responsibility of the generator to enter a service contract with private service providers for the safe collection, transport, treatment and disposal of such waste. Compass Medical Waste Services is currently (2020) the HCRW service provider for most of the private and provincial hospitals and clinics in the CWDM. Compass is licensed to transport, treat and dispose of infectious HCRW, sharps HCRW, anatomical HCRW and expired pharmaceutical HCRW. There might be some general practitioners, dentists and veterinarians making use of other HCRW service providers within the CWDM.

Compass reports on all HCRW collected, treated and disposed of on IPWIS. Compass makes use of an autoclave treatment process for infectious waste and sharps waste. This treatment process is done in closed chambers that apply heat through steam under high pressure to disinfect HCRW. All HCRW treated by Compass is shredded after being treated and sent to the City of Cape Town’s Vissershok hazardous waste landfill for disposal. Anatomical HCRW and pharmaceutical HCRW is sent to a third party (BCL Medical Waste) for treatment by means of incineration. Schedule 0-4 pharmaceutical HCRW is treated and disposed of at the Vissershok (private) hazardous waste landfill. Schedule 5-6 pharmaceutical HCRW is incinerated (at BCL Medical Waste) and the ash is disposed at the Vissershok hazardous waste landfill.

Table 4-14 provides a summary of the average HCRW mass generated in each LM from November 2019 to August 2020 as provided by Compass.

**Table 4-14: HCRW average summary generation rates of private and public hospitals and clinics**

LOCAL MUNICIPALITY	2019* (TONNES/ANNUM)	2020 (TONNES/ANNUM)
WITZENBERG	3 595	21 353
DRAKENSTEIN	5 127	10 277

LOCAL MUNICIPALITY	2019* (TONNES/ANNUM)	2020 (TONNES/ANNUM)
STELLENBOSCH	13 213	21 404
BREDE VALLEY	26 264	73 139
LANGEBERG	5 418	18 893
<b>TOTAL CWDM</b>	<b>53 617</b>	<b>145 066</b>
<b>*Note: Data for 2019 includes only November 2019 and December 2019</b>		

#### 4.4.6 OTHER WASTE CATEGORIES

##### 4.4.6.1 Agricultural waste

Agricultural waste refers to waste produced because of various agricultural operations. Some examples of agricultural waste include crop-growing, harvest residues and harvest waste (such as herbs, grains, root tubers, etc). Waste from livestock farming such as grass, litter, manure or feed is also considered to be agricultural waste.

- In WLM, the agricultural waste from farms is either used as animal feedstock, or for home composting, or it is transported to the nearest landfill site.
- The DLM provides general waste collection services at some farms that are located along the collection routes. Some farmers choose to take their general and agricultural waste to the nearest public drop-off facility or transfer station, where they receive a reduced tariff. The DLM solid waste by-law states that *'A farm owner or occupier may dispose general household waste which may include agricultural and farm waste, on-site but if such waste exceeds the quantity for on-site disposal legislatively allowed or contains any quantity of hazardous waste, he must obtain the prescribed waste management license. The Municipality may request proof of such a license.'*
- The BVLM currently (2020) does not provide waste collection services to farmers and rural households due to long transporting distances and limited accessibility. Farmers reportedly offload their waste at the disposal sites free of charge.
- In LLM, the agricultural waste from farms is either used as animal feedstock, or for home composting, or it is taken to the nearest drop-off facility.
- The SLM provides some refuse removal services to rural and farming communities, but all the rural areas have, at least, access to drop-off facilities.

#### 4.4.6.2 Sewage sludge

Sewage sludge is a key hazardous waste type generated from wastewater treatment works (WWTW) plants. Sewage sludge can be treated for agricultural use or it should be disposed of at a hazardous waste landfill site.

- The WLM reportedly disposes of their sludge waste at a landfill site. The estimated monthly average mass of sludge generated is 86 tonnes/month. Accurate data from the BVLM on the sewage sludge waste generated is not readily available and further investigation into the different waste streams is required.
- The DLM does not accept the disposal of sewerage sludge waste at the landfill site.
- The LLM WWTP operator indicated that there is no sludge mass recorded. Reportedly, the farmers currently (2020) collect the sludge on an *ad hoc* basis for use as fertiliser.
- The LLM does not accept any sludge at the landfill sites.
- The SLM does not accept any sewage sludge on its landfill. A private contractor transports the sewage sludge to a farm in Klipheuwel and the grits and screens are taken to the Vissershok Hazardous Waste Landfill.

#### 4.4.6.3 Abattoir waste

The disposal of infectious animal carcasses to landfill is not allowed. Non-infectious animal waste and carcasses can be disposed at licensed landfill sites as per R. 636: National Norms and Standards of Waste Disposal to Landfill, August 2013.

- Accurate data from BVLM and DLM on the waste mass generated is not readily available and further investigation into the different waste streams is required.
- The DLM does not accept abattoir waste at landfill sites and the carcasses that end up on landfill are isolated and covered as soon as possible.
- The LLM has two abattoirs, namely the Bonnievale abattoir and South African Farm Assured Meat (Robertson Abattoir). The LLM does not accept any abattoir waste at landfills. It is the responsibility of the abattoir to dispose of the waste in the legally required manner.
- There are no abattoirs in the WLM.
- There are no abattoirs in the SLM.

#### 4.4.6.4 Tyres

Management and disposal of waste tyres are regulated under the National Environmental Management: Waste Act, 2008 (Act 59 of 2008), the National Norms and Standards for Disposal of Waste to Landfill, 2013 (R.636) and the Waste Tyre Regulations, 2017. The Waste Tyre Regulation, 2017 placed a ban on landfilling of waste tyres as of 29 September 2017.

The Waste Tyre Regulations (2017) outline prohibitions as far as waste tyre management is concerned, as follows:

*'No person may -*

- a) manage waste tyres in a manner which does not comply to these regulations;*
- b) recover or dispose of a waste tyre in a manner that is likely to cause pollution of the environment or harm to health and well-being;*
- c) dispose of a waste tyre at a waste disposal facility;*
- d) recover any financial contribution in terms of a waste tyre management plan from a subscriber to the plan, unless authorised by law; or*
- e) export waste tyres in whatever form unless the exportation of such waste tyres is authorised by the Minister in writing.'*

According to the regulations, the Waste Bureau is responsible for facilitating, supervising and controlling the management of waste tyres for the interim until a new industry waste management plan is approved in terms of Section 28 or 29 of the Act. The tyre producers must submit declarations on the quantities of tyres locally produced, and imported, to the Waste Bureau on a quarterly basis. The Bureau must then establish a waste tyre forum with all affected industries to deal with the governance and operational matters pertaining to the management of waste tyres during the interim until the new industry waste tyre plan is approved (CSIR, 2020).

- The WLM does not accept tyres for disposal at any landfill site. In the case of tyres being disposed of at a landfill site, the WLM will stockpile the tyres and use them as barriers at parks or landfill sites. The tyre fitment shops (Supa Quick, Hi-Q, Tiger Wheel and Tyre, etc.) have dedicated areas on their premises where the used tyres are stockpiled until collected by the respective suppliers.
- The DLM does not accept any waste tyres at the landfill site and the solid waste by-laws state the following with regards to waste tyres:
  - 1) 'No owner or occupier of premises with an operational area in excess of the statutory determined limit in terms of GN R718 dated 7 July 2009 (List of waste management activities that are likely to have a detrimental effect on the environment) may temporary accumulate, store or stockpile waste tyres unless the waste management activity is managed in accordance with national standards or licenced in terms of national legislation.*
  - 2) Wastes as contemplated in sub section (1) are not accepted at the municipality's own waste handling or waste disposal facility and any person having to dispose of any of these materials must dispose thereof at a waste disposal site as directed by the municipality and in terms of conditions determined for such waste disposal.'*

- Illegal dumping of tyres does occur on the Worcester landfill site, but the BVLM plans to stockpile the tyres for future safe disposal in accordance with guidelines to be issued by the Department of Environment, Forestry and Fisheries (DEFF). Some tyres are used at parks and schools as road markers.
- The LLM does not accept tyres for disposal at any landfill site. In the case of tyres being disposed of at a transfer station or drop-off facility, the LLM stockpiles the tyres and uses them as barriers at parks or landfill sites.
- The SLM does not accept waste tyres at any landfill site. Waste tyres are being dealt with by the respective generating businesses. It is noted that these businesses have adequate systems in place to deal with these waste types in the legally required manner. The SLM is proposing that tyre waste handling should be outsourced to external service providers.

#### 4.4.7 WASTE GENERATION RATES

The estimated waste generation for the CWDM was calculated using the population size along with the waste generation rates per person per year ( $r$ ), as provided in the Guidelines for the development of Integrated Waste Management Plans (IWMPs) (Department of Environmental Affairs, 2006):

- Low income = 149.65 kg/person-year = 0.14 tonnes/person-year
- Middle income = 270.1 kg/person-year = 0.27 tonnes/person-year
- High income = 470.85 kg/person-year = 0.47 tonnes/person-year.

The percentage of people per income group in the CWDM is as follows:

- Low income (R0.00-R50 613): 52%
- Middle income (R50 614-R404 901): 39.5%
- High income (R404 902 or more): 8.6%.

The contribution of each income group was calculated as follows:

$$\text{Waste generation}_i = p \times r$$

where  $i$  = income group

$p$  = percentage of population in income group

$r$  = waste generation rates per person per year.

Table 4-15 provides the estimated current and projected future waste generation rates for the CWDM based on the income distributions. The weighted average population growth for all LMs is 1.6%.

**Table 4-15: Estimated current and future waste generation rates**

Year	LOW INCOME (52% OF POPULATION)		MIDDLE INCOME (39.5% OF POPULATION)			HIGH INCOME (8.6% OF POPULATION)		CWDM TOTAL
	Population	Waste Generation (tonnes/year)	Population	Waste Generation (tonnes/year)	Population	Waste Generation (tonnes/year)	Population	Waste Generation (tonnes/year)
<b>2020</b>	483 977	67 757	367 636	99 262	80 042	37 620	930 725	204 639
<b>2021</b>	490 985	68 738	372 959	100 699	81 201	38 165	944 201	207 601
<b>2022</b>	345 694	48 397	262 594	70 900	57 172	26 871	664 796	146 169
<b>2023</b>	505 337	70 747	383 861	103 643	83 575	39 280	971 801	213 670
<b>2024</b>	512 684	71 776	389 443	105 150	84 790	39 851	985 931	216 777
<b>2025</b>	520 151	72 821	395 115	106 681	86 025	40 432	1 000 291	219 934
<b>2026</b>	527 738	73 883	400 878	108 237	87 280	41 021	1 014 880	223 142
<b>2027</b>	535 445	74 962	406 732	109 818	88 554	41 621	1 029 702	226 401

## 4.5 SERVICE DELIVERY

Data regarding the extent of waste service delivery was sourced from Census data (Community Survey, 2016). According to the 2016 Community Survey, 81.8% of households in the CWDM receive a weekly collection service. According to the 2016 Community Survey data, the CWDM scored the lowest (with 81.1%) compared to the other district municipalities on refuse removed at least once a week.

**Table 4-16: Waste collection services according to Community Survey 2016 data (percentage of households)**

MUNICIPALITY	REMOVED AT LEAST ONCE A WEEK	REMOVED LESS OFTEN THAN ONCE A WEEK	COMMUNAL REFUSE DUMP	COMMUNAL CONTAINER/CENTRAL COLLECTION POINT	OWN REFUSE DUMP	NO RUBBISH DISPOSAL	OTHER
<b>CWD Local Municipalities</b>							
<b>Witzenberg</b>	87.1%	1.5%	5.6%	0.1%	4.7%	0.9%	0%
<b>Drakenstein</b>	90.6%	3.0%	0.9%	0.4%	4.1%	0.6%	0.4%
<b>Stellenbosch</b>	71.0%	7.7%	7.3%	8.6%	3.0%	2.1%	0.3%
<b>Brede Valley</b>	77.7%	6.7%	3.4%	1.9%	6.2%	3.7%	0.3%
<b>Langeberg</b>	79.3%	3.4%	2.4%	0.1%	12.6%	1.5%	0.7%
<b>Western Cape District Municipalities (Average)</b>							
<b>Cape Winelands</b>	81.8%	4.6%	3.7%	2.5%	5.4%	1.7%	0.4%
<b>Garden Route</b>	88.8%	2.7%	2.1%	0.4%	3.8%	0.8%	1.4%
<b>Central Karoo</b>	90.8%	0.6%	1.1%	0.1%	6.2%	0.5%	0.7%
<b>City of Cape Town</b>	87.8%	3.1%	1.3%	6.2%	0.4%	0.7%	0.6%
<b>Overberg</b>	87.1%	1.8%	4.6%	1.8%	3.1%	1.1%	0.6%
<b>West Coast</b>	83.4%	1.7%	1.7%	0.5%	9.9%	2.4%	0.3%
<b>Western Cape (Average)</b>	86.8%	3.0%	1.9%	4.5%	2.2%	0.9%	0.6%

Based on Community Survey 2016 data, it is evident that the level of service varies between LMs. The table below provides an overview of the waste management service provided in each LM.

**Table 4-17: Service delivery summary table**

LOCAL MUNICIPALITY	SERVICE AREA	RECEPTACLE	TYPE OF WASTE	TYPE OF VEHICLE	COMMENTS
<b>Witzenberg</b>	Households and informal settlements	Black bags	General domestic waste	REL compactor	The WLM recently reported a 100% collection service. Some businesses within the WLM make use of private companies to collect recyclables. Such companies are required to report the mass to the WLM. The WLM has a collection schedule that allows for once-a-week collection in all towns. The WLM provides green and black bags to the households. Only Tulbagh currently (2021) receives clear bags for recycling. Skips can be found in dedicated areas around the WLM.
		Clear bags	Recyclables	Cage trucks	
		Green bags	Garden refuse		
	Small businesses and schools	240 l and 770 l wheelie bins	General domestic and business waste	REL compactor	
	Allocated skip areas throughout town	6 m <sup>3</sup> skips	Garden refuse, general domestic waste and C&D waste	Skip loader	
<b>Drakenstein</b>	Households and informal settlements	Black bags and 240 l wheelie bins	General domestic and business waste	REL compactor	All households are using 240 l wheelie bins. Reportedly, there are 43 informal housing settlements, each receiving one black bag per week for which they must sign. Black bags go directly to the landfill and clear bags are taken to the recycling areas at the Paarl transfer station and Wellington landfill.
	Households	Clear bags	Recyclables	Cage truck	
	Businesses and schools	Skips and 240 l wheelie bins	General business waste	REL compactor	
<b>Stellenbosch</b>	Formal housing	240 l wheelie bins and black bags	General domestic waste	REL compactor	The SLM services 100% of the formal households with door-to-door removal. Collection occurs once a week.

LOCAL MUNICIPALITY	SERVICE AREA	RECEPTACLE	TYPE OF WASTE	TYPE OF VEHICLE	COMMENTS
	Informal housing	6 m <sup>3</sup> skips and black bags	General domestic waste	REL compactor	Access to some of the rural areas was noted to be difficult due to poor road conditions and the communal areas around the skips tend to be strewn with litter.
	Businesses and commercial properties	240 l wheelie bins and black bags	General domestic waste	REL compactor	Collection occurs once a week but can be up to three times a week if necessary, based on the type of waste being generated (e.g., food waste from restaurants).
<b>Breede Valley</b>	Households	240 l	General domestic waste	REL compactor	The BVLM supplied 240 l wheelie bins to all middle and high-income groups in Worcester, De Doorns and Rawsonville towns. The bins are placed outside the households for weekly collection as per the collection schedule.
		Clear bags	Recyclables	Cage trucks	The bags are issued to the residents on a one-on-one basis; this implies that the residents receive a bag if they provide a bag with recyclable material. The recyclable material is collected by private recycling companies within the BVLM.
	Touws River, and surrounding areas	Black bags	General domestic waste	REL compactor	The black bags are placed outside the households and collected by the BVLM on a weekly basis as per the collection schedule.
	Businesses and schools	240 l bins and 6 m <sup>3</sup> skips	General domestic and business waste, garden	REL compactor or skip loader	Waste is collected on a weekly basis from schools and businesses.

LOCAL MUNICIPALITY	SERVICE AREA	RECEPTACLE	TYPE OF WASTE	TYPE OF VEHICLE	COMMENTS
			refuse and C&D waste		
<b>Langeberg</b>	Households, small businesses and schools	240 l wheelie bins	Domestic general waste and business general waste	REL compactor	The LLM provides waste collection services to high, medium and low-income groups, businesses and schools. In 2015, the LLM started providing 240 l wheelie bins to all households in the main towns. The LLM provides clear bags for recyclables. The LLM has a collection schedule that allows for once-a-week collection in all towns.
		Clear bags	Recyclables	Cage trucks	
	Informal settlement areas and skip locations	6 m <sup>3</sup> Skips	Garden refuse, domestic general waste and C&D waste	Skip trucks	

## 4.6 COMPLIANCE AND ENFORCEMENT

### 4.6.1 WASTE MANAGEMENT REPORTING

All waste generation and management information must be reported to the South African Waste Information System (SAWIS) in terms of the National Waste Information System Regulations (GN 625 of 2012). The LMs are also required to report waste tonnages on the Integrated Pollutant and Waste Information System (IPWIS) developed by the DEA&DP for the Western Cape Government. All five of the LMs report waste tonnages on IPWIS, which is then exported to SAWIS.

### 4.6.2 WASTE MANAGEMENT FACILITIES

#### 4.6.2.1 Existing waste management facilities

Waste management facilities in the CWDM have been identified through a review of licences on SAWIS, literature reviews, discussions with representatives from municipalities and discussions with stakeholders. Additional facilities may be present in the CWDM, which are below the threshold for a waste management licence or registration, or that are located on private land and operated without the required authorisation. It is, for instance, possible that farmers may be operating small-scale composting facilities that the municipalities are not aware of.

It must be noted that the CWDM is not responsible for any waste management facilities and their respective operations.

**Table 4-18: Summary table of all waste management facilities in CWDM**

WASTE MANAGEMENT FACILITIES IN CWDM	TOTAL NUMBER OF FACILITIES
Operational landfill sites	10
Closed landfill sites	12
Transfer stations	5
MRFs	3
Public drop-off facilities	9
Composting facilities	1

#### 4.6.2.2 Witzenberg LM

Table 4-19 provides a summary of all the waste management facilities located in the WLM.

**Table 4-19: WLM waste management facilities**

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE/PERMIT NO.	LOCATION	COMMENTS
<b>Ceres landfill site</b>	Closed	None	G:M:B+		33°23'0.44"S, 19°19'21.64"E	The site is considered legally closed, and the waste body is capped and rehabilitated.
<b>Prince Alfred Hamlet landfill site</b>	Operational	Garden refuse	G:C:B-	19/2/5/4/B5/11/WL0043/18	33°16'34.37"S, 19°19'30.22"E	WLM plans to start on-site composting in 2020/21.
<b>Op-die-Berg landfill site</b>	Operational	General household waste	G:C:B+	19/2/5/4/B5/8/WL0125/18	33° 3'50.78"S, 19°19'58.37"E	Currently (2021), all WLM general waste is disposed at Op-die-Berg until a height increase application is approved for the Tulbagh landfill.
<b>Tulbagh landfill site</b>	Operational	General household waste and C&D waste	G:C:B+	12/9/11/L127/9	33°16'30.11"S, 19° 7'57.19"E	Applied for height increase.
<b>Wolseley landfill site</b>	Non-operational (vandalised)	General household waste	G:S:B+	19/2/5/4/B5/16/WL0037/13	33°24'52.35"S, 19°11'04.71"E	The Wolseley landfill site was vandalised in 2013 and has since been non-operational.

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE/PERMIT NO.	LOCATION	COMMENTS
<b>Ceres MRF</b>	Planning phase	Recyclables	-	-	33°23'5.84"S, 19°19'21.21"E	Construction reported to commence in 2020.
<b>Wolseley public drop-off facility</b>	Planning phase	General household waste, garden refuse, recyclables	-	-		Construction reported to commence in 2020.

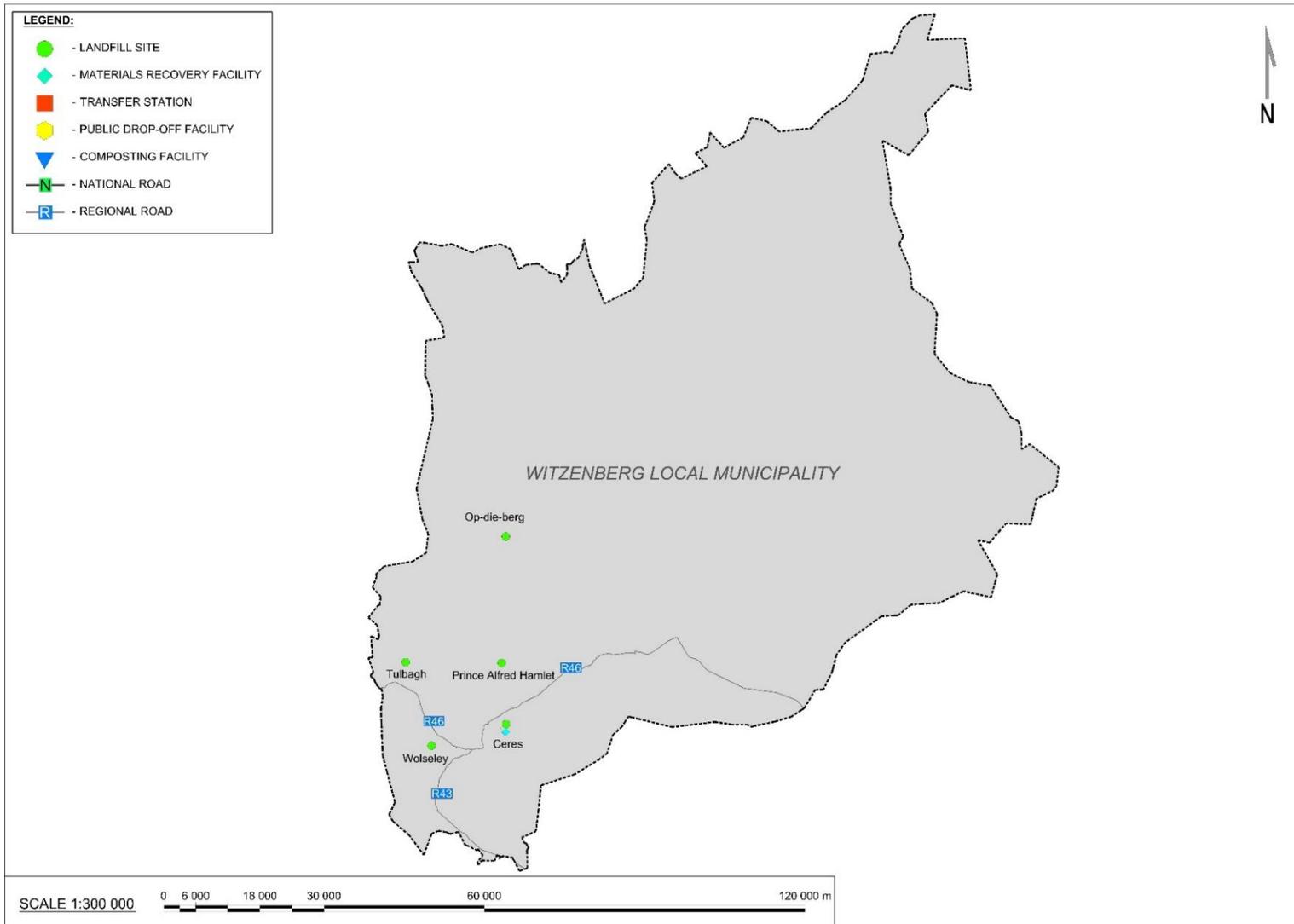


Figure 4-3: WLM waste management facilities

**Table 4-20: Summary of landfill information from the WLM**

ASPECT	CERES LANDFILL SITE (CLOSED)	PRINCE ALFRED HAMLET LANDFILL SITE	OP-DIE-BERG LANDFILL SITE	TULBAGH LANDFILL SITE	WOLSELEY LANDFILL SITE
Notice board and operating hours	N/A	x	x	x	✓
Fencing and gates	N/A	✓	✓	x	✓
Plant on site	N/A	x	x	x	x
Weighbridge	N/A	x	x	✓ (weigh pad installed)	x
Compacting and covering	N/A	✓	✓	x	x
Stormwater control system	N/A	x	x	x	x
Gas control system	N/A	N/A	N/A	N/A	N/A
Leachate collection system	N/A	N/A	N/A	N/A	N/A
Waste reclamation	N/A	✓ (informal)	✓ (informal)	✓ (informal)	✓ (informal)
Complaints	N/A	x	x	x	x

### 4.6.2.3 Drakenstein LM

Table 4-21 provides a summary of all the waste management facilities located in the DLM.

**Table 4-21: DLM waste management facilities**

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Wellington landfill</b>	Operational	General household waste, C&D waste and garden refuse	G:M:B+	19/2/5/4/B3/39/WL0109/17	S33°39'14.8" E18°59'02.9"	This is the only operating landfill in the DLM.
<b>Gouda landfill</b>	Closed	None		19/2/5/4/B3/14/WL0042/18	33°17'55.6''S, 19°01'32.6''E	Fully closed and rehabilitated.
<b>Gouda drop-off facility</b>		General household waste			S33°17'56.9", E19°01'34.2"	Waste is transported from this facility to the Wellington landfill by the municipality.
<b>Saron landfill</b>	Closed	None		19/2/5/1/B3/32/WL0028/14	33°12'23.4''S, 19°00'37.4''E	Fully closed and rehabilitated.
<b>Saron drop-off facility</b>		General household waste			S33°11'20.9", E19°00'25.9"	Waste is transported from this facility to the Wellington landfill by the municipality.
<b>Hermon landfill</b>	Closed	None		19/2/5/4/B3/40/WL0039/18	33°26'03.7''S, 18°57'40.1''E	Fully closed and rehabilitated.
<b>Hermon drop-off facility</b>		General household waste			S33°26'03.7", E18°57'38.3"	Waste is transported from this facility to the Wellington landfill by the municipality.

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Dal Josafat landfill</b>	Closed	None	G:C:B-	19/2/5/4/B3/11/WL0186/19	34°42'24.7"S, 18°58'38.9"E	Requires rehabilitation – planned for the 2022/23 financial year.
<b>Orleans landfill</b>	Closed	None		9/2/5/1/B3/29/WL0029/14	33°43'13.6"S, 18°59'32.6"E	Requires rehabilitation – planned for the 2020/21 financial year.
<b>Boy Louw landfill</b>	Closed	None	G:C:B-	19/2/5/1/B3/28/WL0070/12	33°43'03.8"S, 18°58'19.2"E	Requires rehabilitation – planned for the 2020/21 financial year.
<b>Klapmuts landfill</b>	Closed	None	G:S:B+	6/2/7/G204/D49/Z3/P368	33°47'15.22"S, 18°50'08.81"E	The landfill has been closed and rehabilitated.
<b>Klapmuts transfer station</b>	Operational	General household waste	G:S:B+	16/2/7/G204/D49/Z2/P369	S33°43'11.3", E18°58'33.4"	Waste is transported from this facility to the Wellington landfill by the municipality.
<b>Mini drop-off facilities</b>	Operational	General household waste	-		Informal areas of Mbekweni	The DLM has three mini drop-off sites. The budget and planning are in place to develop a further six of these facilities since the feedback from the communities is that they have been very successful in reducing illegal dumping and public littering.

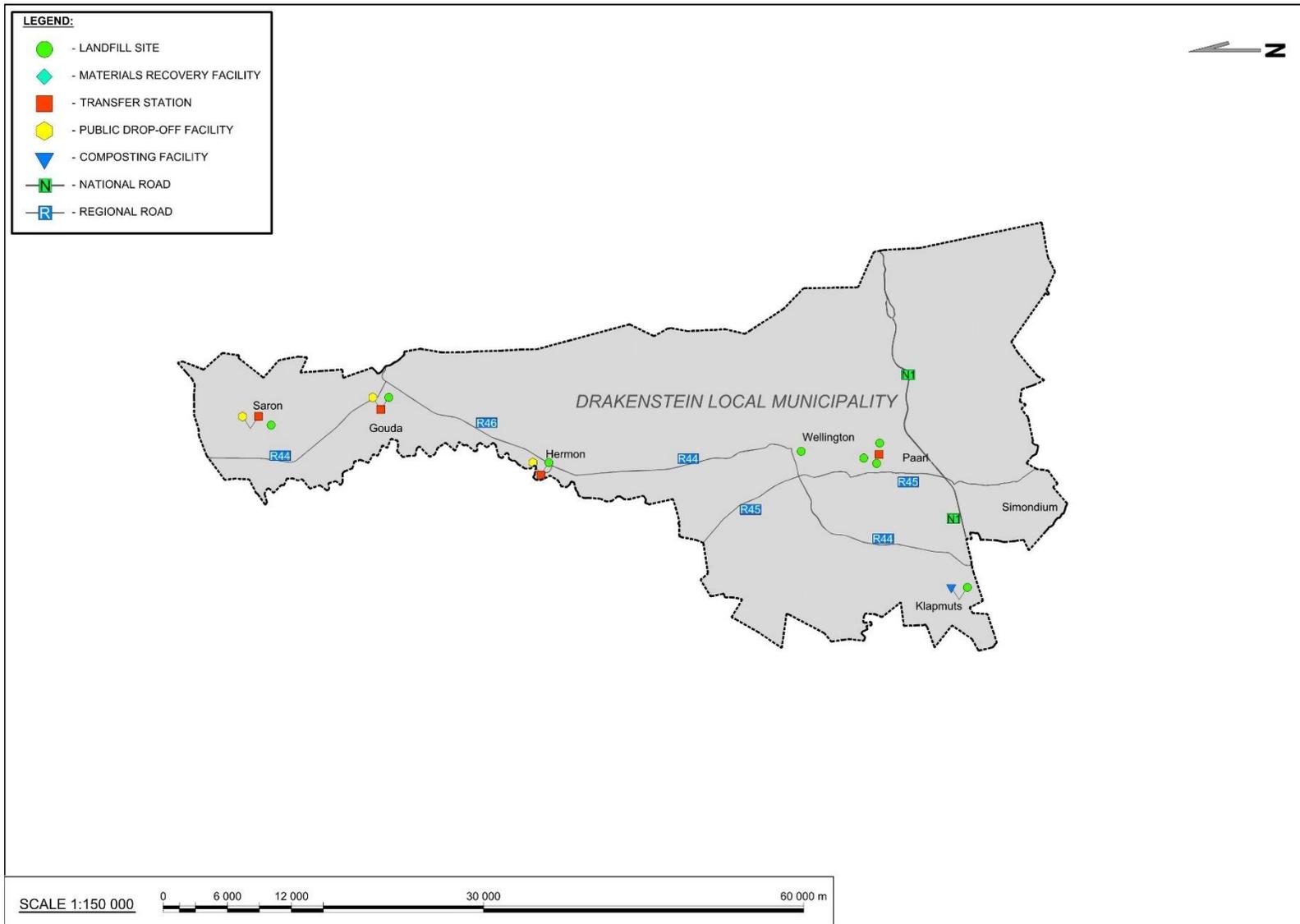


Figure 4-4: DLM waste management facilities

Table 4-22: Summary of landfill information from the DLM

ASPECT	GOUDA LANDFILL (CLOSED)	SARON LANDFILL (CLOSED)	HERMON LANDFILL (CLOSED)	DAL JOSAFAT LANDFILL (CLOSED)	ORLEANS LANDFILL (CLOSED)	BOY LOUW LANDFILL (CLOSED)	KLAPMUTS LANDFILL (CLOSED)	WELLINGTON LANDFILL
Notice board and operating hours	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Fencing and gates	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Plant on site	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Weighbridge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Compacting and covering	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Stormwater control system	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBC
Gas control system	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Leachate collection system	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TBC
Waste reclamation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✘
Complaints	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✘

**4.6.2.4 Stellenbosch LM**

Table 4-23 provides a summary of all the waste management facilities located in the SLM.

**Table 4-23: SLM waste management facilities**

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Stellenbosch/Deon Valley landfill site</b>	Open	General, household waste, garden waste and building and demolition waste	G:M:B+Classes B	16/2/7/G203/D16/Z1/P331 & WML E13/2/10/7-B4/37-WL0077/11	33°56'21.82"S 18°49'15.89"E	Licence for closure of Cell 1
<b>Franschhoek drop-off facility</b>	Open	General	N/A	N/A	S33° 54 27.6" E19° 07' 01.3"	No permit required due to size.

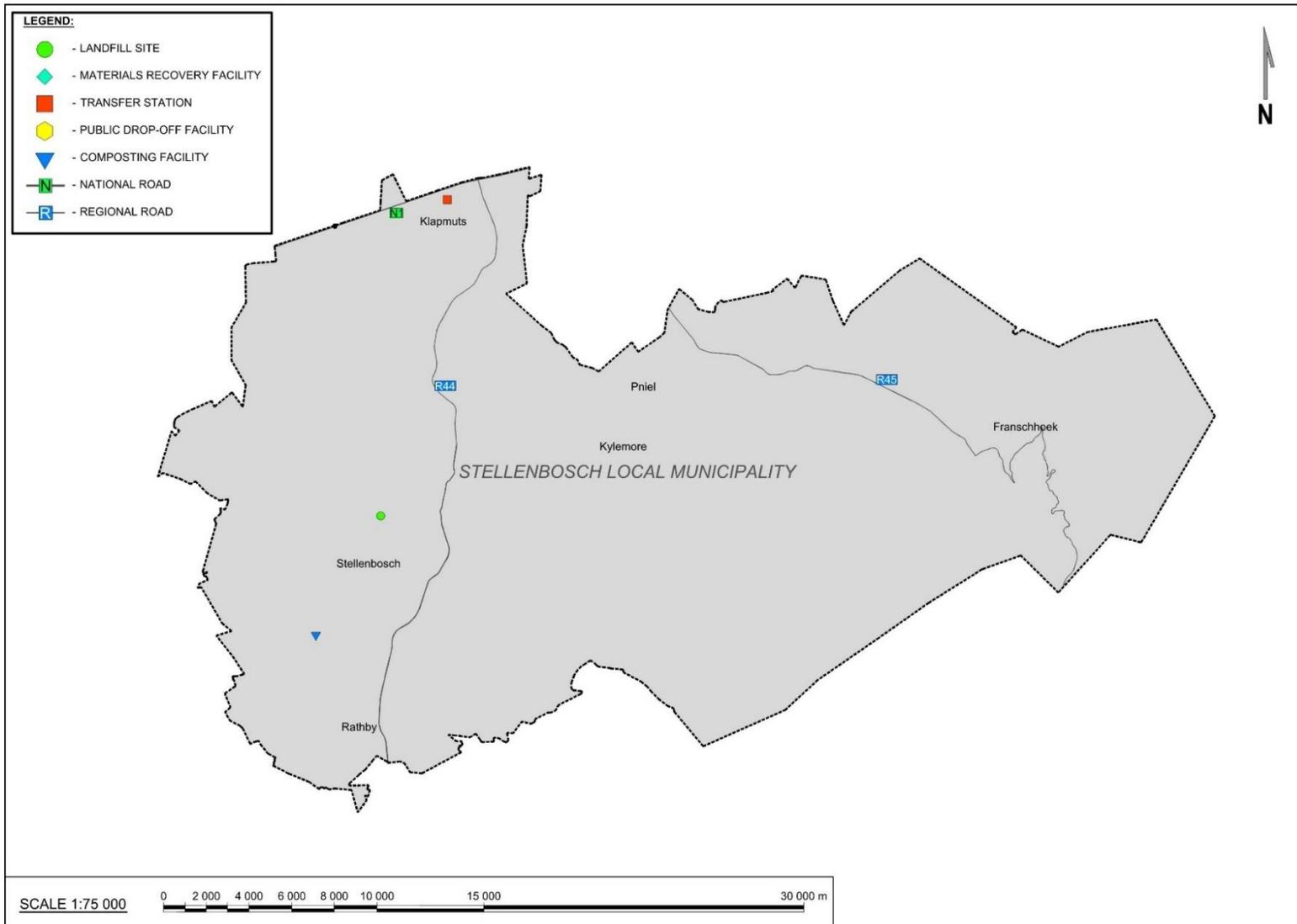


Figure 4-5: SLM waste management facilities

**Table 4-24: Summary of landfill information from the SLM**

<b>ASPECT</b>	<b>STELLENBOSCH/DEON VALLEY LANDFILL SITE (CLOSED)</b>
<b>Notice board and operating hours</b>	N/A
<b>Fencing and gates</b>	N/A
<b>Plant on site</b>	N/A
<b>Weighbridge</b>	N/A
<b>Compacting and covering</b>	N/A
<b>Stormwater control system</b>	N/A
<b>Gas control system</b>	N/A
<b>Leachate collection system</b>	N/A
<b>Waste reclamation</b>	N/A
<b>Complaints</b>	N/A

#### 4.6.2.5 Breede Valley LM

Table 4-25 provides a summary of all the waste management facilities located in the BVLM.

**Table 4-25: BVLM waste management facilities**

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Worcester landfill site</b>	Operational	General household waste, commercial and industrial waste, garden refuse and C&D waste	G:M:B+/ Class B	19/2/5/4/B2/32/WL0126/18	33°40'49.37"S 19°28'10.85"E	Currently (2020), all the BVLM general waste is disposed at the Worcester landfill site.
<b>Worcester MRF</b>		Recyclables			33°40'45.08"S 19°27'57.17"E	
<b>De Doorns landfill site</b>	Non-operational	General household waste, commercial and industrial waste, garden refuse and C&D waste	G:C:B-/ Class B	19/2/5/4/B2/3/WL0041/18	33°29'02.913"S 9°41'42.786"E	This landfill site serves as a transfer station. The residents transport their waste to a landfill site where it is collected by the BVLM and transported to the Worcester landfill.
<b>Touws River landfill site</b>	Operational	C&D waste and garden refuse	Class B	19/2/5/4/B2/29/WL0040/18	33°21'2.09"S 20°01'28.51"E	Only garden refuse and C&D waste disposed of. No access controls.

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Touws River Transfer station</b>	Operational	General household waste			S33° 20 30.7 E20° 01 39.7	There is a transfer station in Touws River, where the public can drop off general waste. The waste is then transported to the Worcester landfill site.

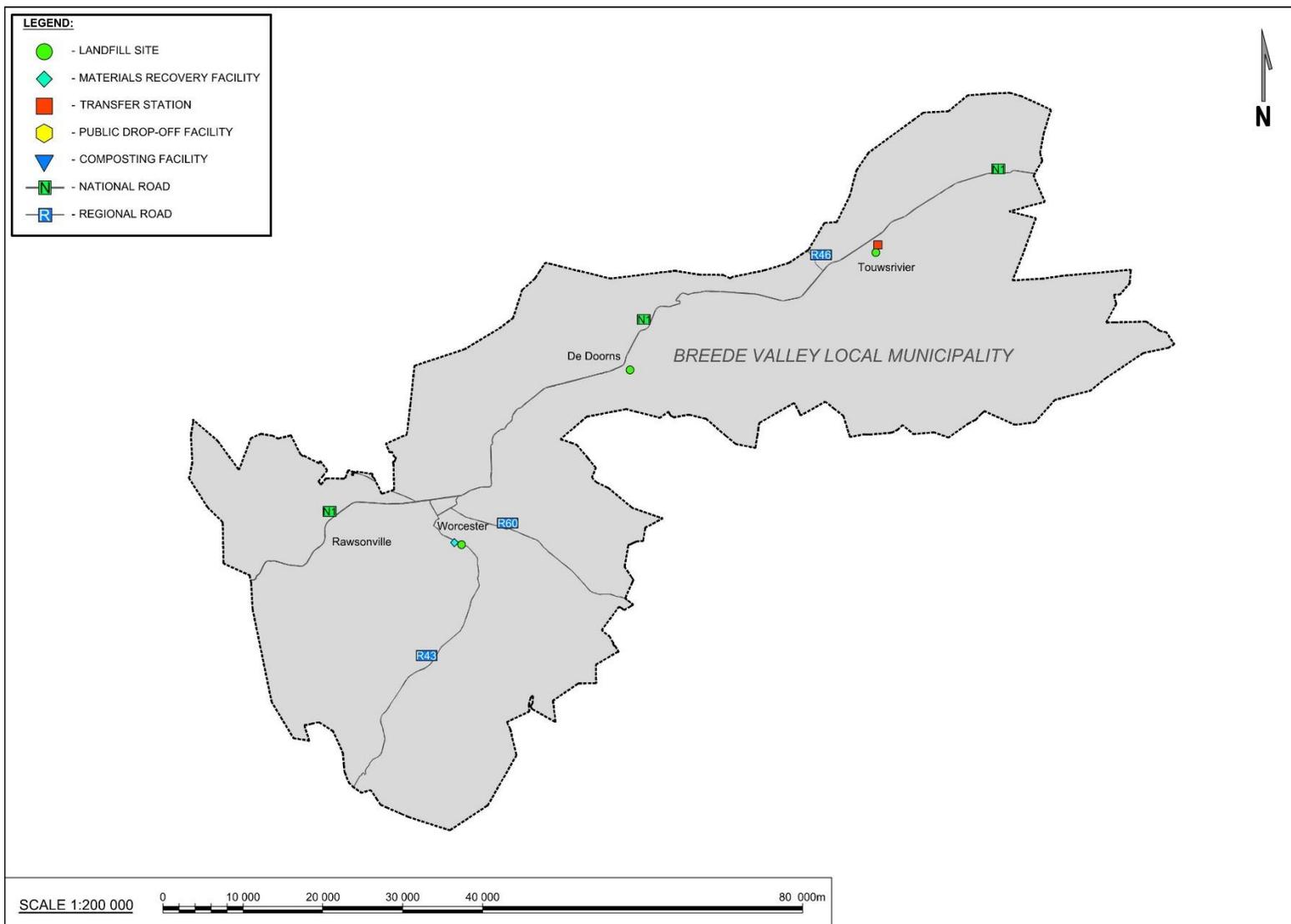


Figure 4-6: BVLM waste management facilities

**Table 4-26: Summary of landfill information from the BVL**

ASPECT	WORCESTER LANDFILL SITE	DE DOORNS LANDFILL SITE	TOUWS RIVER LANDFILL SITE
Notice board and operating hours	✓	✓	x
Fencing and gates	✓	✓	x
Plant on site	✓	x	x
Weighbridge	x	x	x
Compacting and covering	✓	✓	x
Stormwater control system	✓	x	x
Gas control system	✓	x	x
Leachate collection system	✓	x	x
Waste reclamation	x	✓	✓
Complaints	x	x	x

#### 4.6.2.6 Langeberg LM

Table 4-27 provides a summary of all the waste management facilities located in the LLM.

**Table 4-27: LLM waste management facilities**

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Robertson landfill site</b>	Closed	None			33°49'15.55"S, 19°52'15.27"E	Closed and rehabilitated.
<b>Robertson transfer station</b>	Operational	General household waste, commercial and industrial waste and recyclables	-	-	33°49'15.55"S, 19°52'15.27"E	The non-recyclable general waste is currently (2021) transported to the Ashton landfill site for disposal and the recyclables are managed by a private company (Southey's recycling) until the new MRF next to the Ashton transfer station is operational.
<b>Robertson composting facility</b>	Operational	Garden refuse	-	-	33°49'11.68"S, 19°52'16.46"E	The composting process used at Robertson is the Controlled Microbial Composting (CMC) process. The compost is sold to farmers and members of the public.
<b>McGregor "Historic" landfill site</b>	Closed	None	G:C:B-	19/2/5/1/B2/10/WL0082/13	33°57'43.76"S, 19°48'28.31"E	Closed, but rehabilitation required.

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>McGregor drop-off facility</b>	Operational	General household waste, garden refuse, recyclables and C&D waste	-	-	33°57'44.78"S, 19°48'30.25"E	There are dedicated skips for non-recyclable general waste, garden refuse, C&D waste and recyclables.
<b>Bonnievale landfill site</b>	Operational	Garden refuse and C&D waste	G:S:B-	19/2/5/4/B1/4/WL0128/18	30°55'36.2070"S, 20°4'49.8690"E	The garden refuse is stockpiled on the east side of the site, chipped and sold twice a year. The C&D waste is stockpiled on the west side of the site.
<b>Bonnievale public drop-off facility</b>	Operational	General household waste, garden refuse and recyclables	-	-	33°55'50.73"S, 20°5'34.39"E	There are dedicated skips for non-recyclable general waste, garden refuse and recyclables.
<b>Ashton landfill site</b>	Operational	General household and business waste	G:S:B-	19/2/5/2/B1/2/WL0152/18	33°50'6.15"S, 20°6'4.93"E.	The LLM experiences high levels of illegal waste picking and vandalism on the landfill site. LLM plans to upgrade the fence in the 2020/21 financial year.

FACILITY NAME	STATUS	WASTE ACCEPTED	CLASS	LICENSE NO.	LOCATION	COMMENTS
<b>Ashton transfer station</b>	Operational	Garden refuse, recyclables	-	-	33°50'1.12"S, 20°5'35.86"E	Skips are provided for recyclables.
<b>Ashton MRF</b>	Proposal phase	Recyclables	-	-	33°50'1.12"S, 20° 5'35.86"E	New MRF is planned to be built next to the Ashton transfer station.
<b>Montagu landfill site</b>	Operational, but the landfill has reached its capacity	C&D waste	G:S:B-	19/2/5/4/B1/11/WL0127/18	33°47'37.50"S, 20° 8'5.63"E	Closure and rehabilitation required.
<b>Montagu transfer station</b>	Operational	General household waste, garden refuse and recyclables	-	-	33°47'39.5280"S, 20°8'1.6008"E	Skips are provided for non-recyclable general waste, clean garden refuse and recyclables.

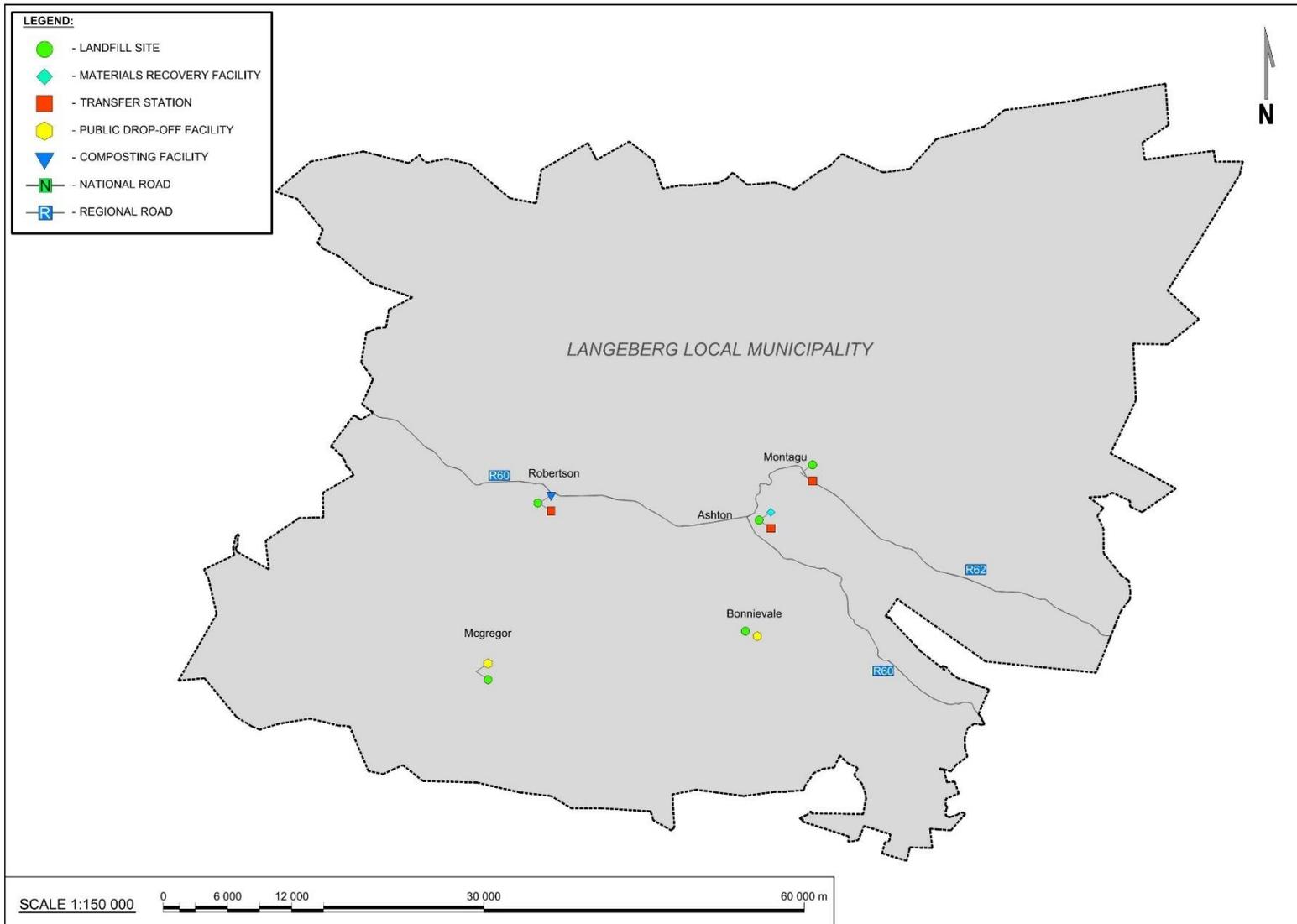


Figure 4-7: LLM waste management facilities

Table 4-28: Summary of landfill information from the LLM

ASPECT	ROBERTSON LANDFILL SITE (CLOSED)	MCGREGOR "HISTORIC" LANDFILL SITE (CLOSED)	BONNIEVALE LANDFILL SITE	ASHTON LANDFILL SITE	MONTAGU LANDFILL SITE
Notice board and operating hours	N/A	N/A	✓	✓	✓
Fencing and gates	N/A	N/A	✓	✓	✓
Plant on site	N/A	N/A	✓	✓	✓
Weighbridge	N/A	N/A	✗	✓	✗
Compacting and covering	N/A	N/A	✗	✓	✗
Stormwater control system	N/A	N/A	✗	✗	✗
Gas control system	N/A	N/A	✗	✗	✗
Leachate collection system	N/A	N/A	✗	✓	✗
Waste reclamation	N/A	N/A	✗	✓ (informal)	✗
Complaints	N/A	N/A	✗	✗	✗

#### 4.6.2.7 Regional landfill site

The CWDM is not involved in any waste collection, treatment or disposal activities as these activities are the mandate and function of local municipalities. However, all the local municipalities in the eastern part of the CWDM are facing significant landfill airspace challenges, and in accordance with section 84(1)(e)(iii) of the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) (Structures Act), the CWDM is mandated to establish, operate and control waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in its district.

Based on this legislative mandate and the dire straits of a lack of landfill airspace in the eastern part of its jurisdiction, the CWDM investigated a regional landfill site to serve Witzenberg, Breede Valley and Langeberg municipalities. The Section 78 investigation, conducted by JPCE (Pty) Ltd, was successful and a Waste Management Licence (WML) for the proposed Construction and Operation of a Regional Landfill site on Erf No. 4014, Worcester (the preferred site) was granted on 25 May 2015 by the Western Cape Government Department of Environmental Affairs and Development Planning (DEA&DP).

Subsequently, after an appeal against the Waste Management Licences and a later court case which ruling was delivered on 5 March 2020 in favour of the CWDM, it is finally in the process of completing the last of the statutory requirements to proceed with the construction of the regional landfill site, which must, in accordance with its renewed Waste Management Licence, be operational by 25 November 2024.

#### 4.6.3 WASTE AVOIDANCE, REDUCTION AND RECYCLING SEPARATION AT SOURCE

Separation at source programmes have been implemented in all the local municipalities in the district. Table 4-29 provides a summary of the separation at source programmes for all the local municipalities.

**Table 4-29: Summary table of separation at source programmes**

LOCAL MUNICIPALITY	CURRENT (2020) SITUATION
<b>Witzenberg</b>	The WLM is currently in the planning phase for the implementation of waste separation at source in all towns. A pilot project was rolled out in one town (Tulbagh), which demonstrated that approximately 85% of waste can be diverted from landfills. The WLM currently (2020) provides green bags to households for garden refuse.
<b>Drakenstein</b>	The DLM has an active waste recycling programme. This includes separation at source in some of the residential areas of Paarl and Wellington, which currently amounts to approximately 1% to 3% of the total waste by mass ending up in clear bags for further separation

LOCAL MUNICIPALITY	CURRENT (2020) SITUATION
	and recovery at the Paarl transfer station facility and Wellington landfill.
<b>Stellenbosch</b>	<p>The SLM has a limited separation at source programme that has been initiated in Brandwacht, Dalsig, Die Boord and Krigeville. Residents currently must collect the clear bags from the municipal offices. The filled bags are then collected, and the bulk is sent to the mini-MRF for sorting, whereafter the recyclables are distributed/sold to the various recycling companies in Stellenbosch. The bulk of the recyclables are then baled and sold to (re-)processors; the bulk of which are outside the Stellenbosch municipal boundary.</p> <p>The Bokashi pilot programme has been successfully tested within some informal areas. This programme takes kitchen waste and treats it with Bokashi, which is sawdust inoculated with bacteria capable of breaking down organics rapidly, which is then used for the production of compost. This is part of a community development programme.</p>
<b>Brede Valley</b>	<p>The middle and high-income areas are participating in a separation at source programme. BVLM supplies clear bags to the households. The clear bags are used to collect recyclable materials. The bags are issued to the residents on a quarterly basis. The recyclables from the households are collected by the municipality and transported to private recycling companies. Four organisations are currently registered as waste management companies with the BVLM. All four of the waste management companies report on waste tonnages to the BVLM.</p>
<b>Langeberg</b>	<p>The LLM offers collection of source-separated waste to all households and businesses in the main towns. The participation level in low-income areas is lower than in that of middle and high-income areas. People in low-income areas need to be remunerated for recyclables, since they are in desperate need of income. The LLM distributes two clear bags per week per household in all the towns for collection of recyclables. The recyclables were previously transported to the Ashton Material Recovery Facility (MRF), where the recyclables were further separated and sold – until the Ashton MRF was vandalised in May 2020. Due to the vandalism of the MRF, the recyclables are currently (2020) transported to Southey's recycling, a private recycling company, while the plans for the new MRF next to the Ashton transfer station are developed.</p>

#### 4.6.4 WASTE DIVERSION RATES

Table 4-30 provides the average diversion rates of the LMs. The diversion percentage includes the recyclables and organic waste diverted from landfills. All figures listed below were received from the respective LMs.

Note: *No information received from BVLM.*

**Table 4-30: Diversion rates for each LM**

Local municipality	ANNUAL TONNES RECORDED ON IPWIS			% DIVERTED FROM LANDFILLS			Comments
	Recyclables (tonnes/annum)	Garden refuse (tonnes/annum)	Total household general and commercial waste disposed (tonnes/annum)	% recyclables diverted	% organic waste diverted	Total % diversion	
<b>Witzenberg</b>	2 300	0	12 892	18%	0%	18%	Average over three years. Garden refuse is collected separately but still disposed of at the Prince Alfred Hamlet landfill site. The WLM plans to start chipping and composting in 2020.
<b>Drakenstein</b>	750	6 100	56 293	1%	11%	12%	Average over two years.
<b>Stellenbosch</b>	103	452	15 472	1.3%	5%	6.3%	Average over two years.

	ANNUAL TONNES RECORDED ON IPWIS			% DIVERTED FROM LANDFILLS			
<b>Breede Valley</b>							<i>No information received from BVLM.</i>
<b>Langeberg</b>	450	1 500	29 577	1.5%	5.1%	6.6%	Average over three years. The LLM has an operational composting plant in Robertson.

**4.6.4.1 Organic waste diversion**

The Department of Environmental Affairs and Development Planning (DEA&DP) proposed a 50% diversion from landfill sites by 2022, and a landfill ban on organic waste to landfill by 2027. The development of composting facilities, anaerobic digesters and implementing of home composting programmes are methods that can be used to divert organic waste from landfill sites. Currently (2021), only the LLM has an operational composting facility in Robertson. The SLM has implemented an initiative that involves the chipping of garden waste, which is then composted by a private contractor.

**4.6.5 ILLEGAL DUMPING**

Table 4-31 provides a summary of illegal dumping management in all LMs and the budget allocated for annual illegal dumping clean-up efforts.

**Table 4-31: Illegal dumping management method and budget for cleaning up**

LOCAL MUNICIPALITY	MANAGEMENT METHOD	CLEAN-UP EFFORTS ANNUAL BUDGET
<b>Witzenberg</b>	The WLM outsources illegal dumping clean-up.	Outsourced service: R462 000
<b>Drakenstein</b>	The DLM has mini drop-off facilities in illegal dumping hotspots. The Expanded Public Works Programme (EPWP) employees clean illegal dumping.	R500 000 for construction of additional drop-off facilities and clean-up.
<b>Stellenbosch</b>	The SLM has an Area Cleaning Department, which is directly involved with clearing of illegal dump sites as well as street cleaning and litter picking. The department has contracted staff as well as EPWP workers.	R325 000 to R500 000 for contracted workers.
<b>Breede Valley</b>	The BVLM makes use of the EPWP to employ cleaners for illegal dumping clean-up activities. The Worcester CBD areas receive street cleaning services by a contractor on a weekly basis or as required.	Outsource services: R1 600 000
<b>Langeberg</b>	The LLM currently (2020) has a dedicated team with a rear-end-loader (REL) for illegal dumping hotspot clean-ups and street cleaning in all towns.	R3 000 000 utilised for general labourers and equipment.

**4.7 WASTE AWARENESS AND EDUCATION**

**4.7.1 CAPE WINELANDS DM**

The CWDM distributes waste awareness and educational materials to schools and informal settlements. The educational materials encourage recycling and contain

recycling information on different waste streams. The LMs are responsible for their own waste awareness campaigns, but the CWDM assists where needed.

The following posters are examples of the educational material distributed by the district municipality.



Figure 4-8: Examples of waste awareness posters

#### 4.7.2 WITZENBERG LM

The WLM appointed 25 waste ambassadors for environmental education and waste awareness campaigns. These waste ambassadors are employed for door-to-door

waste campaigns and clean-up projects, and conduct visits to schools, clinics and residents to raise awareness. The WLM aims to achieve the following through the distribution of educational material and awareness campaigns:

- Raise waste awareness
- Provide a basic understanding of the environment and its associated problems
- Attempt to change residents' attitudes towards waste
- Help social groups and individuals acquire the skills for identifying and solving environmental problems
- Provide social groups, individuals and ward councillors with an opportunity to be actively involved at all levels in working towards the resolution of environmental problems
- Modify environmental education and awareness towards the development of sustainable economies
- Facilitate cooperative governance amongst respective units of the municipality
- Encourage and demonstrate the need to pay for services inclusive of waste management
- Discourage illegal dumping of waste
- Promote waste diversion from landfills.

#### 4.7.3 DRAKENSTEIN LM

The DLM has erected four public information boards at the Wellington landfill entrance, at the Wellington municipal offices, at the Paarl solid waste transfer station and at the Paarl municipal offices. These boards indicate the date when the Wellington landfill was last surveyed, the total percentage of available landfill airspace, the estimated date when the landfill will reach capacity and the total percentage of waste diverted from landfill. This information is updated regularly. The recycling statistics for DLM are also published in the Paarl Post (local newspaper).

The DLM also runs an ongoing waste awareness and education campaign. The following activities are planned for the DLM in partnership with schools, corporates, government institutions, the waste industry and stakeholders:

- Visit one school per month with the intention to initiate new, and improve current, projects in waste minimisation and recycling programmes at the schools.
- Have a project champion (preferably an educator) at each school to create healthy competition among schools to encourage them to perform or work harder in their individual waste minimisation projects. The emphasis will be to do a waste audit regarding how much waste is generated and recycled, and reward schools with the highest recycling rate.

- Arrange field trips with schools to the Wellington landfill facility, the Paarl transfer station and various recycling companies to get first-hand experience of waste cycle programmes.
- Have clean-up projects in surrounding areas where schools are situated and with the adjacent community. The ward councillor should also be involved and compensate the school for each bag collected. In Year 1, this can be facilitated as a pilot study with cooperatives (Coops) on board.

Other initiatives that the municipality will also investigate are the following:

- The involvement of informal recyclers or the street waste pickers (landfill waste pickers) in collaboration with non-governmental organisations (NGO) to clean-up the towns and remunerate them per hour of work through the Expanded Public Works Programme.
- A pilot project to collect green waste in a defined area to minimise illegal dumping thereof.
- Establish recycling exchange centres in wards, starting with a pilot project where people can be remunerated for the recyclables collected and handed in at these centres.
- Investigate the roll-out of refuse collection to backyard dwellers, to also minimise illegal dumping.

#### 4.7.4 STELLENBOSCH LM

The SLM has launched 'Utter Rubbish', which is a waste awareness newsletter. There are plans to increase waste awareness programmes and communications with the public based on budget availability. Examples include flyers outlining basics of responsible waste management and recycling as well as the names and contact information of recyclers.

#### 4.7.5 BREEDE VALLEY LM

The BVLM has the following active public awareness campaigns:

- The Education and Swop Shop Project: the BVLM plans to establish swop shops in Avianpark, De Doorns and Touws River. This project will strive to educate the communities on waste management and the value of recycling.
- Youth Jobs in Waste Programmes: The BVLM plans to appoint a foreman responsible for implementing waste education at school level.

#### 4.7.6 LANGEBERG LM

The LLM currently provides presentations and educational material to schools and organisations regarding waste reduction, reuse and recycling. The LLM makes use of Expanded Public Works Programme (EPWP) employees to distribute waste awareness educational material.

## **4.8 OPERATIONAL STRUCTURE AND STAFF CAPACITY**

The CWDM organogram was reviewed in July 2020. The CWDM does not have a designated waste management department. The Deputy Director: Project Management, Mr Christo Swart, currently oversees all waste management-related operations and projects. He is also the Waste Management Officer (WMO) for CWDM.

A review of the organogram will be required before the regional landfill site becomes operational. Once the landfill is operational, the CWDM's role will evolve from a supporting role to a service provision role. The day-to-day operation and management of the regional landfill will require additional human and financial resources.

## 5 GAP AND NEEDS ANALYSIS

Based on the findings of the status quo investigation, several gaps and needs have been identified.

Gaps and needs related to waste management in each local municipality have been identified in terms of each of the following waste management activities:

- Waste minimisation, recycling and reuse initiatives
- On-site waste containerisation and storage
- Waste service delivery
- Waste management facilities
- Organic waste management
- Hazardous waste management
- Waste management collection fleet, plant and equipment
- Human and financial resource management
- Waste management information
- Waste education and public awareness
- Strategic planning.

Table 5-1 identifies the gaps and needs for the five LMs in the CWDM.

It must be noted that detailed information on each applicable category can be found in the respective LMs' IWMPs.

✓ - *applies to LM*

Table 5-1: Gap and needs identification

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
<b>Waste minimisation, recycling and reuse initiatives</b>	Low separation at source participation	✓	✓	✓	✓	✓	Implement initiatives for increased participation in separation at source programmes
	Low rates on recyclable material diversion from landfills	✓	✓	✓	✓	✓	Improve recordkeeping and recycling diversion initiatives
	Lack of recycling initiatives at schools	✓	✓	✓	✓	✓	Implement recycling initiatives at schools
<b>On-site waste containerisation and storage</b>	Lack of 240 l wheelie bins at households				✓		Provide 240 l wheelie bins to households
	Lack of closed receptacles in towns	✓	✓	✓	✓	✓	Provide closed receptacles to reduce littering
	Lack of recyclable material collection bags provided to households	✓			✓	✓	Provide recyclable material collection bags to households that support recycling to improve the recycling participation rate
<b>Waste service delivery</b>	Exact number of households not receiving waste collection services is unknown	✓	✓		✓	✓	Determine the number of households not receiving collection and determine the type of collection required (e.g. curb-side collection, skip collection, garden refuse collection)

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Farmers making use of open burning of waste or own refuse dumps	✓	✓		✓	✓	Determine the number and location of farmers not receiving collection services
	The collection schedule is outdated			✓		✓	Update the collection schedule based on the service delivery demand
	Illegal dumping	✓	✓	✓	✓	✓	Identify illegal dumping hotspots and implement ways to prevent them
<b>Waste management facilities</b>	Vandalism of MRF				✓	✓	Establish MRF in the municipality and provide the necessary security to protect all infrastructure
	Lack of drop-off facilities	✓		✓	✓		Establish public drop-off facilities and service regularly; provide suitable access ramps for skips to prevent illegal dumping of waste in the area
	Lack of public buy-back facilities	✓	✓	✓	✓	✓	Establish public buy-back facilities and support entrepreneurs through skills development to manage buyback facilities
	Lack of swop shops in low-income areas	✓	✓	✓	✓	✓	Implement swop shops and educate the residents on recyclable material types

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Vandalism at landfill sites	✓			✓	✓	Prevent vandalism by providing the necessary security and prosecuting offenders.
	Lack of security at the landfill site	✓			✓	✓	Improve security at the landfill sites
	Illegal dumping of tyres at landfill sites				✓		Prevent illegal dumping of tyres by providing facilities that are aligned with the Waste Tyre Regulations, 2017
	Annual internal and external audits for waste management facilities are not conducted	✓	✓	✓	✓	✓	Conduct internal and external audits at all waste management facilities and submit copies to the Regulating Authorities
<b>Organic waste management</b>	At present, organic waste is disposed of at the landfill sites, causing low garden refuse and organic waste diversion rates from landfills—this is in turn resulting in increased methane generation	✓		✓	✓		Divert organic waste from landfill sites to composting facilities, support the composting industry by creating additional markets for such compost
	Organic waste diversion plan	✓	✓	✓	✓	✓	Draft and implement organic waste diversion plan

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Lack of knowledge on home composting	✓	✓	✓	✓	✓	Conduct home composting awareness and education campaigns
	No composting facility	✓	✓	✓	✓		Establish a composting facility and create markets for compost
<b>Hazardous waste management</b>	There are no containers for safe disposal and storage for household hazardous waste at the drop-off/transfer station facilities	✓	✓	✓	✓	✓	Provide containers that are serviced for household hazardous waste to be directed to the Vissershok hazardous waste landfill
	Lack of hazardous waste information and generation rates	✓	✓	✓	✓	✓	After facilities/drop-off facilities are established, raise awareness regarding household hazardous waste and improve the hazardous waste information system
<b>Waste management collection fleet, plant and equipment</b>	Some municipal waste collection vehicles are operating beyond their effective service life	✓	✓			✓	Evaluate fleet to determine reliability, cost effectiveness and efficiency to replace collection vehicles that are no longer serviceable
	Skips have reached end of life	✓	✓			✓	Repair/replace such skips

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Additional skips required in low-income areas	✓		✓	✓	✓	Purchase additional skips to prevent illegal dumping. Provide access ramps and service them regularly. Awareness required to teach community not to put waste in skips that are on fire. This damages the paint on skips, which leads to the rusting of the skips.
	Lack of chippers and composting equipment at the composting facility or landfill sites where organic waste is composted	✓	✓	✓	✓		Purchase and utilise composting equipment
	Lack of weighbridges at the medium and large landfill sites	✓	✓		✓	✓	Install weighbridges at the landfill sites
<b>Human and financial resource management</b>	Vacancies in the staff structure	✓	✓	✓	✓	✓	Review staff structure and requirements to fill vacant positions with suitable, qualified and experienced staff
	No designated person for waste awareness	✓	✓	✓	✓	✓	Appoint staff as waste awareness educators

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Insufficient budget for upcoming waste management projects						The municipality must ensure that there is sufficient provision in the capital and operational budget for upcoming waste management projects
<b>Waste management information</b>	Limited information available regarding industrial and hazardous waste generation	✓	✓	✓	✓	✓	Source information and keep records updated regarding hazardous waste generation
	Lack of major waste generator information	✓	✓	✓	✓	✓	Ensure that major waste generator information is sourced and maintained
	No waste management by-laws exist			✓		✓	Develop relevant waste management by-laws
<b>Waste education and public awareness</b>	Lack of hazardous waste management knowledge at households, businesses and industries	✓	✓	✓	✓	✓	Improve waste knowledge at households, businesses and industries through education and awareness programmes
	Lack of access to recycling information in affected communities	✓	✓	✓	✓	✓	Distribute recycling information in all formal and informal residential, commercial and industrial areas

CATEGORY	GAP	WLM	DLM	SLM	BVLM	LLM	GENERAL NEED
	Lack of at-home composting education	✓	✓	✓	✓	✓	Educate the communities and households on at-home composting
	Lack of public open days as part of awareness programmes	✓	✓	✓	✓	✓	Have waste educational public open days to inform and demonstrate how waste is to be managed responsibly
<b>Strategic planning</b>	Development of IWMPs at regular intervals	✓	✓	✓	✓	✓	Provide the required funds to review and update the IWMP at regular intervals and ensure that it is implemented
	No feasibility study has been done to evaluate the financial impact of using the proposed new regional landfill site for the various LMs to dispose of waste in future	✓	✓	✓	✓	✓	Undertake a feasibility study dealing with an integrated service with various scenarios investigated, and evaluate the cost to LMs associated with transferring waste to and disposal at the proposed regional landfill

## 6 DESIRED END STATE

The goals, objectives and implementation plan of an IWMP are formulated to address potential shortcomings or necessary improvements identified during the gaps and needs analysis. Goals are long-term aspirations for waste management, while objectives are more focused, measurable targets which, if implemented correctly, will allow the municipality to reach the identified goals. The *Implementation Plan* finally identifies and allocates roles, responsibilities, and timeframes for implementation of the IWMP (presented in Section 7).

The *Guidelines for the development of Integrated Waste Management Plans* by the Western Cape (WC) DEA&DP state the following in terms of developing strategic goals, objectives and targets:

- Strategic goals must be set based on relevant waste legislation, regulations and policies and should be guided by the waste management hierarchy.
- The setting of goals, objectives and targets must also take into consideration the municipal response to the goals and targets set in the NWMS.
- The strategic goals must include setting targets for waste management such as collection, recycling, recovery and disposal.

The DEA&DP Guidelines describe goals, objectives and targets as follows:

- **Goal:** A Long-term desired result that can be accomplished through various projects. Goals are not necessarily measurable but instead present a long-term desired end state for the municipality. The goals were aligned to the NWMS and the Western Cape IWMP.
- **Objectives:** Measurable outputs which, once completed, will contribute to the accomplishment of a goal. Objectives will have deadlines to drive their implementation.
- **Targets:** Smaller projects that, when combined, will fulfil the requirement of an objective. The targets will also have deadlines for implementation.

The NWMS 2020 strategic goals that were used to align the IWMP were as follows:

- Waste Minimisation – the aim is to prevent waste and where waste cannot be prevented, 40% should be diverted from landfill within five years through reuse, recycling, recovery and alternative waste treatment: 25% of waste reduction in waste generation; and 20% waste reused in the economic value chain.
- Effective and Sustainable Waste Services – this would see all South Africans living in clean communities with waste services that are well-managed and financially sustainable.
- Waste Awareness and Compliance – the aim is to create a culture of compliance with zero tolerance of pollution, litter and illegal dumping.

The Western Cape outlined four goals in the 2<sup>nd</sup> Generation IWMP (2017-2022). The CWDM as well as the LM's goals and targets were developed in line with the following four goals set in the Western Cape IWMP:

- Goal 1: Strengthened education, capacity and advocacy towards integrated waste management.
- Goal 2: Improved integrated waste management planning and implementation for efficient waste services and infrastructure.
- Goal 3: Effective and efficient utilisation of resources.
- Goal 4: Improved compliance with environmental regulatory framework.

## 6.1 GOALS IDENTIFIED FOR CWDM

While the gap and needs analysis (Section 5) identified the gaps and needs for all five LMs, the goals identified below are directed at the CWDM. To align the CWDM's goals with those of the NWMS 2020 and the Western Cape IWMP (2017-2022), the following goals were formulated:

- Goal 1: Promote waste minimisation and recycling
- Goal 2: Improve waste education and public awareness
- Goal 3: Ensure sound budgeting for integrated waste management
- Goal 4: Improve regulatory compliance
- Goal 5: Improve waste information management.

The goals for the CWDM are not directly related to waste management service delivery since the district municipality only plays an overarching role in terms of waste management. The goals are, however, aimed at improving waste service delivery within each of the five local municipalities. Table 6-1 provides the identified objectives and targets for each of the goals listed above.

**Table 6-1: CWDM goals, objectives and actions**

GOAL	OBJECTIVE	ACTIONS
<p><b>Goal 1: Promote waste minimisation and recycling</b></p>	<p>Objective 1: Develop a district waste minimisation plan</p>	<p>Develop a district waste minimisation plan alongside the DM to ensure that the LMs share the same strategies and targets to reduce waste sent to landfill.</p>
	<p>Objective 2: Assist LMs to roll out source separation, collection, transport and selling (for processing) of recyclable waste in all towns</p>	<ul style="list-style-type: none"> <li>• Provide assistance in terms of waste awareness campaigns and funding options.</li> <li>• Ensure that the recyclable waste separated at source is collected, sorted and sold for further processing as recyclable materials.</li> <li>• Ensure that the recyclable material diversion rates for the LMs are improved to meet the required targets.</li> <li>• Assist in the creation of sustainable markets for recycled products as a means of increasing the demand for recyclable materials, thus increasing the price of recyclable material.</li> <li>• Ensure implementation of buyback centres and swop shops in low-income areas.</li> </ul>

GOAL	OBJECTIVE	ACTIONS
	<p>Objective 3: Assist LMs to roll out source separation, collection, transport and composting of organic waste in all towns</p>	<ul style="list-style-type: none"> <li>• Provide assistance in terms of waste awareness campaigns and funding options.</li> <li>• Provide guidance and assistance during the development phase of the organic waste diversion plans.</li> <li>• Assist to enforce the implementation of organic waste diversion.</li> <li>• Ensure that the organic waste separated at source is collected, sorted and processed to generate compost.</li> <li>• Ensure that the compostable diversion rates for the LMs are improved to meet the required targets.</li> <li>• Assist in the creation of sustainable markets for compost as a means of increasing the demand for processed organic waste, thus increasing the price of compost.</li> <li>• Ensure implementation of composting facilities.</li> </ul>

GOAL	OBJECTIVE	ACTIONS
<p><b>Goal 2: Improved waste education and public awareness</b></p>	<p>Objective 1: Conduct district-wide waste awareness campaigns</p>	<ul style="list-style-type: none"> <li>• The following waste awareness campaigns should be aligned and conducted in all LMs:                             <ul style="list-style-type: none"> <li>○ Waste minimisation promoted</li> <li>○ Source separation of recyclable waste promoted</li> <li>○ Source separation of organic waste promoted</li> <li>○ Locations of disposable waste/recyclable material drop-off facilities where collection is not done</li> <li>○ Littering prevention</li> <li>○ Illegal dumping prevention</li> <li>○ Vandalism of infrastructure prevention</li> <li>○ Reporting on service delivery shortcomings</li> </ul> </li> <li>• Ensure that sufficient waste awareness material is available.</li> <li>• Ensure that the waste awareness campaigns are stakeholder specific.</li> <li>• Have a public participation survey to determine the public’s knowledge and preferred method of waste awareness communication.</li> </ul>
	<p>Objective 2: Undertake hazardous waste awareness programmes with businesses and the industry</p>	<p>The hazardous waste awareness programme should focus on informing businesses and the industry of registration requirements, duty of care, reporting responsibilities and waste classification.</p>

GOAL	OBJECTIVE	ACTIONS
<p><b>Goal 3: Ensure sound budgeting for integrated waste management</b></p>	<p>Objective 1: Review the current organogram</p>	<ul style="list-style-type: none"> <li>• Review the current organogram and ensure it is aligned with the roles and responsibilities required to manage the district waste management function and the regional landfill site.</li> <li>• Appoint a dedicated waste awareness campaign team.</li> <li>• Ensure waste management officers (WMOs) are formally appointed and trained as per NEM:WA.</li> </ul>
	<p>Objective 2: Ensure appropriate budgeting for the regional landfill site</p>	<ul style="list-style-type: none"> <li>• Ensure appropriate budgeting for the development and operations of the new regional landfill site.</li> <li>• Budget for development and operations of additional transfer stations and long-haul transport.</li> </ul>
	<p>Objective 3: Ensure that funds are available in the budget to review and update the IWMP every five years</p>	<ul style="list-style-type: none"> <li>• Ensure that funds are available in the budget to review and update the IWMP in five years.</li> <li>• Ensure that funds are available in the budget for the execution of IWMP actions.</li> </ul>
<p><b>Goal 4: Improve regulatory compliance</b></p>	<p>Objective 1: Ensure the regional landfill site is developed and operated according to the waste management licence and the related waste management legislation</p>	<ul style="list-style-type: none"> <li>• Monitor all LMs to ensure their waste management systems, in totality, are legally compliant.</li> <li>• Undertake internal audits to review the compliance status of the regional landfill site and implement corrective measures where required.</li> <li>• Undertake bi-annual external audits on the regional landfill site and implement corrective measures where required.</li> <li>• Monitor the operation and management of the regional landfill site daily.</li> <li>• Ensure LMs conduct annual internal and external landfill audits, with implementation of the corrective measures where required.</li> </ul>

GOAL	OBJECTIVE	ACTIONS
	Objective 2: Develop district waste management by-laws	<ul style="list-style-type: none"> <li>• Develop district waste management by-laws and ensure there are sufficient employees to enforce the district by-laws.</li> <li>• Ensure that the local waste management by-laws are developed in line with the DM's by-laws and ensure there are sufficient employees to enforce the LM by-laws.</li> <li>• Update the waste management section of Chapter 8 of the Municipal Health By-Laws of the Cape Winelands District Municipality and ensure that this aligns with NEM:WA and NWMS.</li> </ul>
	Objective 3: Review IWMP implementation plans	<ul style="list-style-type: none"> <li>• Annual performance review of the DM and LM's IWMPs to ensure that they are being implemented efficiently.</li> <li>• The findings of these reviews must be presented at the annual waste management meetings.</li> </ul>
	Objective 4: Ensure that Section 78 investigations are undertaken for outsourcing of waste management activities	<ul style="list-style-type: none"> <li>• Undertake Section 78 investigations for the DM (as required) for waste management services that are to be outsourced.</li> <li>• Ensure that Section 78 investigations are undertaken for all LMs (as required) for waste management services that are to be outsourced.</li> </ul>
<b>Goal 5: Improve waste information management</b>	Objective 1: Ensure accurate waste information is collected and reported to IPWIS	<ul style="list-style-type: none"> <li>• Ensure that all LMs have operational weighbridges or accurate waste volume/mass recording systems in place to ensure accurate recording of waste volumes/tonnages.</li> <li>• Monitor the LMs reporting regularly and accurately to IPWIS.</li> </ul>

GOAL	OBJECTIVE	ACTIONS
	Objective 2: Install a weighbridge at the new regional landfill site	<ul style="list-style-type: none"> <li>• Budget and install weighbridges (one incoming and one outgoing) at the new regional landfill site for regular and accurate waste mass recording.</li> <li>• Ensure regular and accurate recording of waste tonnages disposed of at the regional landfill on IPWIS.</li> </ul>
	Objective 3: Improve recycling recordkeeping	<ul style="list-style-type: none"> <li>• Ensure LMs report recyclable volumes/mass and material types accurately for local recycling facilities.</li> <li>• Ensure the DM reports recyclable volumes/mass and material types accurately for regional recycling facilities.</li> <li>• Ensure recycling companies report recyclable volumes/mass and material types accurately for private recycling facilities.</li> </ul>
	Objective 4: Improve hazardous waste generation recordkeeping	<ul style="list-style-type: none"> <li>• Ensure major hazardous waste generators are registered on IPWIS and that the mass of hazardous waste is reported accurately.</li> </ul>

## 7 IMPLEMENTATION PLAN

The following section presents an implementation plan to assist the CWDM in meeting the objectives and targets outlined in the gap and needs analysis section. The implementation plan contains several projects and respective actions which, if properly executed, should enable the CWDM to achieve its objectives and targets. The implementation plan therefore identifies and allocates roles, responsibilities, and timeframes for implementation of the IWMP. The identified projects have been prioritised and span a period of seven years (2021–2027). Table 7-2 below outlines the implementation plan.

The table below provides the legend for the implementation plan.

**Table 7-1: Implementation plan legend**

TERM	PRIORITY LEVEL
Short-term (1-2 years)	High
Medium-term (3-4 years)	Medium
Long-term/continuous (5 or more years)	Low

Table 7-2: Implementation plan

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
<b>Goal 1: Promote waste minimisation and recycling</b>	Objective 1: Develop a district waste minimisation plan	Develop a district waste minimisation plan alongside the LMs to ensure that the LMs share the same strategies and targets to reduce waste sent to landfill.								R250 000 to develop plan.	DM plus all LMs
	Objective 2: Assist LMs to roll out separation at source in all towns	<ul style="list-style-type: none"> <li>• Ensure that the waste separated at source is collected, sorted and sold for further processing as recyclable materials.</li> <li>• Ensure that the recyclable diversion rates of the LMs are improved.</li> <li>• Assist LMs to find markets to sell recyclable material</li> </ul>								R150 000 pre-buy-back centre and R10 000/annum for maintenance and repairs on each buy-back centre.	LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		and generate income; and ensure implementation of buy-back centres and swop-shops in low-income areas.									
	Objective 3: Assist with the development and implementation of LMs' organic waste diversion plans	<ul style="list-style-type: none"> <li>• Provide guidance and assistance during the development phase of the organic waste diversion plans.</li> <li>• Assist to enforce the implementation of organic waste diversion.</li> <li>• Ensure that organic waste is diverted from landfills in all LMs and that composting is taking place; and</li> </ul>								R500 000 for one composting facility per LM and R20 000/annum for maintenance of each facility.	LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		assist LMs to find markets to sell compost.									
<b>Goal 2: Improved waste education and public awareness</b>	<b>Objective 1: Conduct district-wide waste awareness campaigns</b>	<ul style="list-style-type: none"> <li>• The following waste awareness campaigns should be aligned and conducted in all LMs:                             <ul style="list-style-type: none"> <li>○ Waste minimisation</li> <li>○ Source separation of recyclable waste</li> <li>○ Source separation of organic waste</li> </ul> </li> </ul>								R2 000 000 per annum awareness materials.	DM together with LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		<ul style="list-style-type: none"> <li>○ Locations of drop-off facilities where collection is not done</li> <li>○ Littering</li> <li>○ Illegal dumping</li> <li>○ Vandalism of infrastructure</li> <li>○ Reporting on service delivery shortcomings</li> <li>● Ensure sufficient waste awareness material is available</li> <li>● Ensure that the waste awareness campaigns are audience-specific</li> <li>● Have a public participation survey to</li> </ul>									

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		determine the public's knowledge and preferred method of waste awareness messages.									
	Objective 2: Undertake hazardous waste awareness programmes with businesses and industry	The hazardous waste awareness programme should focus on informing businesses and the industry of registration requirements, duty of care, reporting responsibilities and waste classification.								R 1 000 000 per annum for domestic hazardous waste removal service from public drop-off facilities.	DM together with LMs
<b>Goal 3: Ensure sound budgeting for integrated</b>	Objective 1: Review current organogram	<ul style="list-style-type: none"> <li>Review the current organogram and ensure it is aligned with the roles required to manage the district waste</li> </ul>								Nil, in-house employees to review organogram.	DM and LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
waste management		management function and the regional landfill site management. • Appoint dedicated waste awareness campaign team, and ensure waste management officers are formally appointed as per NEM:WA.									
	Objective 2: Ensure sound budgeting for regional landfill site	• Ensure sound budgeting for the development and operations of the new regional landfill site. • Budget for additional transfer stations and long hauling vehicles.								R150 000 000 (VAT excl.)	DM

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
	Objective 3: Ensure budget available to review and update the IWMP in five years	<ul style="list-style-type: none"> <li>• Ensure budget is available to review and update the IWMP in five years, ensure budget for the execution of IWMP projects.</li> </ul>								R300 000 for review	DM
<b>Goal 4: Improve regulatory compliance</b>	Objective 1: Ensure the regional site is operated according to the license	<ul style="list-style-type: none"> <li>• Monitor all LMs to ensure their waste management systems, in totality, are legally compliant.</li> <li>• Undertake internal audits to review the compliance status of the regional landfill site.</li> <li>• Undertake annual external audits of the regional landfill site.</li> <li>• Monitor the management of the</li> </ul>								R50 000 per landfill audit	DM and LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		regional landfill site daily and ensure LMs conduct annual internal and external landfill audits.									
	Objective 2: Develop district waste management by-laws	<ul style="list-style-type: none"> <li>• Develop district waste management by-laws and ensure there are sufficient employees to enforce the district by-laws.</li> <li>• Update the waste management section of Chapter 8 of the Municipal Health By-Laws of</li> </ul>								R1 000 000 to review and promulgate.	DM and LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
		the Cape Winelands District Municipality and ensure that this aligns with NEM:WA and NWMS.									
	Objective 3: Review IWMP implementation plans	<ul style="list-style-type: none"> <li>Annual performance review of the DM and LMs' IWMPs to ensure that they are being implemented efficiently.</li> <li>The findings of these reviews must be presented at the annual waste management meetings.</li> </ul>								Nil, done in-house.	DM and LMs
	Objective 4: Ensure that Section 78	<ul style="list-style-type: none"> <li>Undertake Section 78 investigations for the DM (as</li> </ul>								R1 000 000 for DM (regional landfill).	DM and LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
	investigations are undertaken for outsourcing of waste management activities	required) for waste management services that are to be outsourced. <ul style="list-style-type: none"> <li>• Ensure that Section 78 investigations are undertaken for all LMs (as required) for waste management services that are to be outsourced.</li> </ul>								R5 000 000 for LMs (waste transfer, long haul transport, recycling and composting).	
<b>Goal 5: Improve waste information management</b>	Objective 1: Ensure accurate waste information is collected and reported to IPWIS	<ul style="list-style-type: none"> <li>• Ensure that LMs have operational weighbridges or accurate recording systems in place to ensure accurate recording of waste quantities.</li> <li>• Monitor the LMs reporting to IPWIS.</li> </ul>								Nil, done in-house.	DM and LMs

GOAL	OBJECTIVE	PROJECT DESCRIPTION	TIMEFRAME							ESTIMATED BUDGET REQUIRED (PROVISION TO BE MADE FOR ESCALATION)	RESPONSIBLE PARTY
			2021	2022	2023	2024	2025	2026	2027		
	Objective 2: Install weighbridge at the new regional landfill site	<ul style="list-style-type: none"> <li>Budget and install weighbridges at the new regional landfill site.</li> <li>Ensure that the data is accurately recorded on IPWIS.</li> </ul>								Included in regional landfill development cost.	DM
	Objective 3: Improve recycling record keeping	<ul style="list-style-type: none"> <li>Ensure recycling companies report volumes and material types correctly.</li> </ul>								Nil, in-house employees to check quantities.	DM and LMs
	Objective 4: Improve hazardous waste generation record keeping	<ul style="list-style-type: none"> <li>Ensure proper recordkeeping of hazardous waste generators.</li> </ul>								Nil, in-house employees to check quantities.	DM and LMs

## 8 IWMP MONITORING AND REVIEW

Regular and ongoing monitoring of the implementation plan (outlined in Section 7) is required to ensure the goals, objectives and actions of the IWMP are accomplished within designated timeframes.

### 8.1 REPORTING

According to Section 13(2) of The National Environmental Management: Waste Act (Act 59 of 2008), performance reports on the implementation of the Integrated Waste Management Plan must be prepared in terms of Section 46 of the Municipal Systems Act and must contain the following information:

- The extent to which the plan has been implemented during the period
- The waste management initiatives that have been undertaken during the reporting period
- The delivery of waste management services and measures taken to secure the efficient delivery of waste management services, if applicable
- The level of compliance with the plan and any applicable waste management standards
- The measures taken to secure compliance with waste management standards
- The waste management monitoring activities
- The actual budget expended on implementing the plan
- The measures that have been taken to make any necessary amendments to the plan.

### 8.2 MONITORING AND REVIEW

The designated Waste Management Officer (WMO) is responsible for preparing the performance reports on the implementation of the IWMP on an annual basis.

The annual performance report must summarise the municipality's progress towards meeting the goals, targets and objectives outlined in the implementation plan of the IWMP. More specifically, the report should comprise the following:

- Strategic issues: The CWDM's performance and progress on meeting the short, medium and long-term goals, objectives and targets
- Financial issues: Reporting on budget forecasting, obtaining sufficient budgets, and budgeting constraints with respect to both existing waste management operations and the implementation of this IWMP
- IWMP amendments: Amendments to the IWMP necessitated by the outcomes of feasibility studies, financial constraints; etc.
- Communication: Keeping councillors, key stakeholders and the residents informed on the progress in meeting the IWMP.

### **8.3 REVISION OF THE IWMP**

As this IWMP forms part of the Integrated Development Plan required in terms of Chapter 5 of the Municipal Systems Act, the next comprehensive revision of the IWMP should occur in 2027.

The comprehensive review will include an update of the status quo; evaluate overall progress against the goals, objectives and targets outlined in this IWMP; review gaps and needs; and reformulate the goals and objectives as required to continue to improve waste management services in the CWDM.

## 9 PUBLIC PARTICIPATION PROCESS

As part of the development of the IWMP, the consultants have engaged with stakeholders and members of the community. Stakeholders and interested and affected parties (I&APs) were notified that the draft IWMP is out for commenting. The figure below provides the advertisement that was placed on the CWDM's website. Due to COVID-19, the public participation was done via online methods. The public participation period was from 01 April 2021 to 01 May 2021. The advert and proof of publication can be found below.

 <p>CAPE WINELANDS DISTRICT MUNICIPALITY • MUNISIPALITEIT • UMASIPALA</p>	<p><b>NOTICE OF THE REVIEW AND UPDATE OF THE CAPE WINELANDS DISTRICT MUNICIPALITY (CWDM) INTEGRATED WASTE MANAGEMENT PLAN (IWMP) FOR THE CWDM IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008).</b></p>
<p>Notice is hereby given in terms of the National Environmental Management: Waste Act (Act No. 59 of 2008) that the Cape Winelands District Municipality (CWDM) is reviewing the Integrated Waste Management Plan (IWMP).</p>	
<p><b>Municipality:</b></p>	<p>Cape Winelands District Municipality</p>
<p><b>Lead Consultant:</b></p>	<p>Delta Built Environment Consultants (Delta BEC)</p>
<p><b>Competent Authority:</b></p>	<p>Western Cape Department of Environmental Affairs and Development Planning</p>
<p><b>Project Nature and Location:</b></p>	<p>The project's primary objective of the review and updating of CWDM's IWMP is to ensure that waste management practices in the CWDM comply with the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008).</p>
<p><b>Opportunity to Participate:</b></p>	<p>As part of the Public Participation process, the public is afforded a 30-day period from 1 April 2021 to 1 May 2021 to comment on the draft IWMP. The draft IWMP will be available on the CWDM website from 1 April.</p> <p>Comments on the Draft IWMP can be forwarded to:  <b>Mrs Chanté Stander</b>  <b>Tel:</b> 012 368 1850  <b>Email:</b> chante.stander@deltabec.com</p>

Figure 9-1: CWDM IWMP Advert







# Spesiale dienste

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0861 small ads

Spertye vir Diensgids  
Is Dinsdae 12:00!

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FORM JJJ  
LOST OR DESTROYED DEED

Notice is hereby given in terms of Regulation 68 of the Deeds Registry Act, 1937, of the intention to apply for the issue of a certified copy of Deed of Transfer T35566/2013 passed by THE TRUSTEES FOR THE TIME BEING OF THE LIBERTY TRUST No 17 827/2008 in favour of PETRONELLA AMARITA CRONJE Identity number 480917 0048 08 0 MARRIED OUT OF COMMUNITY OF PROPERTY in respect of certain

PORTION 076 OF THE FARM BLAAUW KLP 916 IN THE MUNICIPALITY OF STELLENBOSCH DIVISION STELLENBOSCH PROVINCE WESTERN CAPE

Now described as ERFB JAMES TOWN WC IN THE MUNICIPALITY OF STELLENBOSCH DIVISION STELLENBOSCH PROVINCE WESTERN CAPE which has been lost and destroyed.

All interested persons having objection to the issue of such copy are hereby required to lodge the same in writing with the Registrar of Deeds at Cape Town within two weeks from the date of publication of this notice.

Dated at Somerset West this 19th day of March 2021.

Applicant DU PLESSIS & HORMEYR INC Address: 208 MAIN ROAD, SOMERSET WEST, CAPE TOWN, 7130 E-mail address: and@andh.com or dh@andh.com or andh.com  
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### IMPORTANT NOTICE

1. The Department of Social Development, Stellenbosch Local Office, is requesting Mr Shanon Joseph who was last seen in the Franschoek, Stellenbosch and Paarl areas to urgently contact the social worker, Ms J Layman, at 021 871 1482 or at Ramonaat Mall, Lady Grey Street, Paarl during office hours (07:30-16:00) Mon-Fri. He is allegedly a close relative of a female child born in 2012.

2. The Department of Social Development, Stellenbosch Local Office, is requesting Mr Johannes Mulgas who was last seen in the Franschoek, Stellenbosch and Paarl areas to urgently contact the social worker, Ms J Layman, at 021 871 1482 or at Ramonaat Mall, Lady Grey Street, Paarl during office hours (07:30-16:00) Mon-Fri. He is allegedly a close relative of a female child born in 2012.

3. The Department of Social Development, Stellenbosch Local Office, is requesting Mr Karlien leake who was last seen in the Franschoek, Stellenbosch and Paarl areas to urgently contact the social worker, Ms J Layman, at 021 871 1482 or at Ramonaat Mall, Lady Grey Street, Paarl during office hours (07:30-16:00) Mon-Fri. She is allegedly a close relative of a female child born in 2012 and a male child born in 2006.

4. The Department of Social Development, Stellenbosch Local Office, is requesting Mr Marlo Louw who was last seen in Stellenbosch to urgently contact the social worker, Ms J Layman, at 021 871 1482 or at Ramonaat Mall, Lady Grey Street, Paarl during office hours (07:30-16:00) Mon-Fri. She is allegedly a close relative of a female child born in 2005.

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### WESTERN CAPE GAMBLING AND RACING BOARD

#### OFFICIAL NOTICE

##### RECEIPT OF AN APPLICATION FOR A SITE LICENCE

INTERMS OF THE PROVISIONS OF SECTION 32(3) OF THE WESTERN CAPE GAMBLING AND RACING ACT, 1994 (ACT 4 OF 1994), AS AMENDED, THE WESTERN CAPE GAMBLING AND RACING BOARD ("THE BOARD") HEREBY GIVES NOTICE THAT AN APPLICATION FOR A SITE LICENCE, AS LISTED BELOW, HAS BEEN RECEIVED. A SITE LICENCE WILL AUTHORISE THE LICENCE HOLDER TO PLACE A MAXIMUM OF FIVE LIMITED PAY-OUT MACHINES IN APPROVED SITES OUTSIDE OF CASINOS FOR PLAY BY THE PUBLIC.

##### DETAILS OF APPLICANT

1. Name of business: Hollywood Sportsbook Western Cape (Pty) Ltd  
Reg No: 2006/011557/07  
The Hollywood Hotel Stellenbosch

At the following site: Shop 1, 2nd Floor, 131 Bird Street, Stellenbosch 7180

Est number: Est 4135, Stellenbosch

Persons having a financial interest of 5% or more in the business: Hollywood Sportsbook Holdings (Pty) Ltd - 100%

##### WRITTEN COMMENTS AND OBJECTIONS

Section 32 of the Western Cape Gambling and Racing Act, 1994 (hereinafter "the Act") requires the Western Cape Gambling and Racing Board ("the Board") to ask the public to submit comments and/or objections to gambling licence applications that are filed with the Board. The conduct of gambling operations is regulated in terms of both the Act and the National Gambling Act, 2004. This notice serves to notify members of the public that they may lodge objections and/or comments to the above application on or before the closing date at the below-mentioned address and contacts. Since licensed gambling constitutes a legitimate business operation, moral objections for or against gambling will not be considered by the Board. An objection that merely states that one is opposed to gambling without such substantiation will not be viewed with much favour. You are hereby encouraged to read the Act and learn more about the Board's powers and the matters pursuant to which objections may be lodged. These are outlined in Sections 28, 29, 31 and 35 of the Act. Members of the public can obtain a copy of the objection guidelines, which is an explanatory guide through the legal framework governing the lodgement of objections and the Board's adjudication procedures. The objection guidelines are accessible from the Board's website at www.wgrb.co.za and copies can also be made available on request. The Board will consider all comments and objections lodged on or before the closing date during the adjudication of the application. In the case of written objections to an application, the grounds on which such objections are founded, must be furnished.

Where comments in respect of applications is furnished, full particulars and facts to substantiate such comment must be provided. The name, address and telephone number of the person submitting the objection or offering the comment must also be provided. Comments or objections must reach the Board by no later than 16:00 on Friday, 9 April 2021.

In terms of Regulation 34(1) of the National Gambling Regulations, the Board will schedule a public hearing in respect of an application, only if it receives written objections relating to:

- (a) the propriety or suitability for licensing of any of the persons to be involved in the operation of the relevant business, or
- (b) the suitability of the proposed site for the conduct of gambling operations.

If a public hearing is scheduled, the date of such hearing will be advertised in this publication approximately 14 days prior to the date thereof.

Objections or comments must be forwarded to the Chief Executive Officer, Western Cape Gambling and Racing Board, P.O. Box 9175, Regalwade 8912 or handed to the Chief Executive Officer, Western Cape Gambling and Racing Board, 188 Parkway Close, Parow 7166 or sent to the Chief Executive Officer on 021 423 2483, or emailed to: [Objections.Licensing@wgrb.co.za](mailto:Objections.Licensing@wgrb.co.za)

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### NOTICE OF THE REVIEW AND UPDATE OF THE CAPE WINELANDS DISTRICT MUNICIPALITY (CWM) INTEGRATED WASTE MANAGEMENT PLAN (IWMP) FOR THE CWM IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008)

Notice is hereby given in terms of the National Environmental Management: Waste Act (Act No. 59 of 2008) that the Cape WineLands District Municipality (CWM) is reviewing the Integrated Waste Management Plan (IWMP).

Municipality:	Cape WineLands District Municipality
Lead Consultant:	Delta Built Environment Consultants (Delta BEC)
Competent Authority:	Western Cape Department of Environmental Affairs and Development Planning
Project Nature and Location:	The project's primary objective of the review and updating of CWM's IWMP is to ensure that waste management practices in the CWM comply with the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).
Opportunity to Participate:	As part of the Public Participation process, the public is afforded a 30-day period from 1 April 2021 to 1 May 2021 to comment on the draft IWMP. The draft IWMP will be available on the CWM website from 1 April.

Comments on the Draft IWMP can be forwarded to:  
Ms Charli Stander  
Tel: 012 368 1850  
Email: [charli.stander@delta-bec.com](mailto:charli.stander@delta-bec.com)

Figure 9-5: Eikestad Nuus



**NOTICE OF THE REVIEW AND UPDATE OF THE CAPE WINELANDS DISTRICT MUNICIPALITY (CWDIM) INTEGRATED WASTE MANAGEMENT PLAN (IWMPP) FOR THE CWDIM IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008).**

Notice is hereby given in terms of the National Environmental Management: Waste Act (Act No. 59 of 2008) that the Cape Winelands District Municipality (CWDIM) is reviewing the Integrated Waste Management Plan (IWMPP).

**Municipality:** Cape Winelands District Municipality  
**Lead Consultant:** Delta Built Environment Consultants (Delta BEC)  
**Responsible Authority:** Western Cape Department of Environmental Affairs and Development Planning  
**Project Nature and Location:** The project's primary objective of the review and updating of CWDIM's IWMPP is to ensure that waste management practices in the CWDIM comply with the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).  
**Opportunity to Participate:** As part of the Public Participation process, the public is afforded a 30-day period from 1 April 2021 to 1 May 2021 to comment on the draft IWMPP. The draft IWMPP will be available on the CWDIM website from 1 April.  
 Comments on the Draft IWMPP can be forwarded to:  
**Mrs Chanté Stander**  
 Tel: 012 368 1850  
 Email: chantie.stander@deltabec.com



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**LEASE OF MUNICIPAL PROPERTIES - WARD 9, 31 and 18**

Notice is hereby given in terms of Section 21 of the Local Government: Municipal Systems Act (Act 32 of 2000), the Asset Transfer Regulations (MIMA, No R.1870) and the Municipality's Asset Transfer Policy (2020) that the Municipality intends to renew the following agreements and intends to call for applications to lease the following municipal properties respectively for the purpose of informal trading (business), as indicated, subject to certain conditions:

**A- RENEWAL OF AGREEMENTS**

**1. A portion of Erf 2586 Mbevelen (in Mphahleli Street, Mbevelen) and known as the "Mphahleli Trading Kiosk" (Ward 9)**

UNIT	APPLICANT	BUSINESS PURPOSE	SIZE-M <sup>2</sup>
A	Nokwinda Shurman	Traditional Clothing	14m <sup>2</sup>
B	Glenon Sonemat	Funeral	14m <sup>2</sup>
C	Thulika Cape	Beauty Parlour	14m <sup>2</sup>
E	Para Tshabe	Takenaways	14m <sup>2</sup>

Lease Period: 3 (three) years from 1 December 2020  
 Lease amount: R100.00 (VAT incl.) as determined in the Annual Budget, escalate annually on 1 July in accordance with the tariffs as determined and approved in the Annual Budget by Council.

**1. Erf 1240, Melva Street, Gouda, and known as the "Gouda Business Kiosk" (Ward 31)**

UNIT	APPLICANT	BUSINESS PURPOSE	SIZE-M <sup>2</sup>
B	Jacqueline Cassen	Takenaways	12m <sup>2</sup>
C	Adam Septhimer	Barber shop	12m <sup>2</sup>
E	Marlyn Sharon Jones	Hair Salon	12m <sup>2</sup>
F	Felicia Hendricks	Beauty Parlour	12m <sup>2</sup>

Lease Period: 3 (three) years from 1 December 2020  
 Lease amount: R200.00 (VAT incl.) as determined in the Annual Budget, escalate annually on 1 July in accordance with the tariffs as determined and approved in the Annual Budget by Council.

**2. Erven 13046 and 13047, corner of Main and Joaber Streets, Wellington, also known as the "Anndien Business Kiosk" (Ward 18)**

UNIT	APPLICANT	BUSINESS PURPOSE	SIZE-M <sup>2</sup>
3A	Evelyn Petersen	Clothing	46m <sup>2</sup>
3B	Gerard Stemmert Samuels	Barber shop	46m <sup>2</sup>
4	Leandor Cornelissen	Laundry	46m <sup>2</sup>
5	Christopher Ferreira	Funeral Parlour	46m <sup>2</sup>
7	Ann Vraagie	Clothing	46m <sup>2</sup>

Lease Period: 3 (three) years from 1 December 2020  
 Lease amount: R200.00 (VAT incl.) as determined in the Annual Budget, escalate annually on 1 July in accordance with the tariffs as determined and approved in the Annual Budget by Council.

**B- CALL FOR APPLICATIONS**

1. Unit B, measuring 14m<sup>2</sup> in extent, situated on a portion of Erf 2586 Mbevelen (in Mphahleli Street, Mbevelen) and known as the "Mphahleli Trading Kiosk" (Ward 9)  
 2. Unit A, measuring 12m<sup>2</sup> in extent, situated on Erf 1240, Melva Street, Gouda, and known as the "Gouda Business Kiosk" (Ward 31)  
 3. Unit 6, measuring 43m<sup>2</sup> in extent, situated on Erven 13046 and 13047, corner of Main and Joaber Streets, Wellington, also known as the "Anndien Business Kiosk" (Ward 18)

Lease Period: For the period ending 30 November 2023  
 Lease amount: R2 000.00 (VAT incl.) as determined in the Annual Budget, escalate annually on 1 July in accordance with the tariffs as determined and approved in the Annual Budget by Council.

Interested parties are hereby invited to submit applications for the lease of the above-mentioned properties (B1-3), noting that the transaction will be subject to certain conditions and specifications. Application forms together with an Information Pack will be available during office hours at the Economic Growth and Tourism Division, 5th Floor, Nedbank Building, 1 Breda Street, Paarl. Completed applications (Information Pack) with full details attached thereto, must be returned to the Record Section, First Floor, Civic Centre, Berg River Boulevard, Paarl, or per electronic mail to [customerservice@drakenstein.gov.za](mailto:customerservice@drakenstein.gov.za) by no later than 8 April 2021. No late applications will be considered.

Particulars regarding the above transactions may be viewed during office hours at the Economic Growth and Tourism Section, 5th Floor, Nedbank Building, 1 Breda Street, Paarl. Enquiries may be directed to Mr Ntobeko Vasa ([01210074740@ntobeko@drakenstein.gov.za](mailto:01210074740@ntobeko@drakenstein.gov.za)).

Proper motivated comments, objections and/or representations (A1-3 and B1-3) or alternative/counter offers in respect of the above transactions (A1-3) must be lodged in writing to the City Manager, Civic Centre, Berg River Boulevard, Paarl on or before 11 April 2021. Late submissions will not be considered.

Persons who are unable to read or write, may submit their properly motivated comments, objections and/or representations in an alternative/counter offer and application (as indicated above) verbally at the Economic Growth and Tourism Section, 5th Floor, Nedbank Building, 1 Breda Street, Paarl, where they will be assisted during office hours by Mr Ntobeko Vasa, to transcribe their comments, objections and/or representations in alternative/counter offer in writing.

**DR J H ZIEBBERANDT**  
 CITY MANAGER  
 Paarl Post - 25/03/2021

**NOTICES - VACANCIES - BETREKINGS - KENNISGEWINGS - BETREKKINGS**

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**IMPORTANT NOTICE**

- The Department of Social Development, Stellenbosch Local Office is requesting Mr Adriaan Petro Swartz who was last seen in New Rest, Wellington to urgently contact the social workers Ms Ivan Rooyen or Mrs J de Jager at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a female child born in 2016.
- The Department of Social Development, Drakenstein Local Office is requesting Anneli Zenzile who was last seen in Mbevelen and New Rest, Wellington. It is urgent, contact the social worker, Mrs M Danhouse, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a child born in 2014.
- The Department of Social Development, Drakenstein Local Office is requesting Lukhona Jonga who was last seen in Mbevelen and New Rest, Wellington. It is urgent, contact the social worker, Mrs M Danhouse, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. He is allegedly a close relative of a male child born in 2014.
- The Department of Social Development, Drakenstein Local Office is requesting Ms Hilary Martie who was last seen in the Paarl area to urgently contact the social worker, Ms J Fortuin, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a female child born in 2017.
- The Department of Social Development, Drakenstein Local Office is requesting Mr Mawulo Gumbi who was last seen in the Paarl area to urgently contact the social worker, Ms J Fortuin, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. He is allegedly a close relative of a female child born in 2017.
- The Department of Social Development, Drakenstein Local Office is requesting Ms Chantel Miles and Mr Granville Boyse who were last seen in the Paarl area to urgently contact the social worker, Ms J Fortuin, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. They are allegedly close relatives of a female child born in 2012.
- The Department of Social Development, Drakenstein Local Office is requesting Patrick Daniels who was last seen in the Paarl and Stellenbosch areas to urgently contact the social worker, Ms J Fortuin, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. He is allegedly a close relative of a male child born in 2000.
- The Department of Social Development, Drakenstein Local Office is requesting Nkayole Mbema who was last seen in Mbevelen, Paarl to urgently contact the social worker, Ms M Williams, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a female child born in 2006.
- The Department of Social Development, Drakenstein Local Office is requesting Frederika Eerten who was last seen in Paarl to urgently contact the social worker, Ms L September, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a male child born in 2004.
- The Department of Social Development, Drakenstein Local Office is requesting Mrs L September, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a female child born in 2004.
- The Department of Social Development, Paarl Local Office is requesting Clevecia Paris who was last seen in the Paarl area to urgently contact the social worker, Ms J Rodemeyer, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a male child born in 2018.
- The Department of Social Development, Paarl Local Office is requesting Veronica Williams who was last seen in the Paarl area to urgently contact the social worker, Ms M Williams, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. She is allegedly a close relative of a female child born in 2014.
- The Department of Social Development, Paarl Local Office is requesting Donovan Anes who was last seen in the Paarl area to urgently contact the social worker, Ms M Williams, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. He is allegedly a close relative of a male child born in 2012.
- The Department of Social Development, Paarl Local Office is requesting Ms Nazreena Vermeulen and Mr Moos Williams who were last seen in the Paarl area to urgently contact the social worker, Ms J Rodemeyer, at 021 871 1482 or at Rembrandt Mall, Lady Grey Street, Paarl during office hours (07:30-14:00) Mon-Fri. They are allegedly close relatives of a male child born in 2014.

Alma Wilson

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The WCG is guided by the principles of Employment Equity. Candidates with disabilities are encouraged to apply and an indication in this regard would be appreciated.

**Closing date: 16 April 2021**



Figure 9-6: Paarl Post

The following parties commented on the Draft IWMP:

- Department of Environmental Affairs and Development Planning

The comments on the Draft CWDM IWMP were incorporated into the Final CWDM IWMP.

The comments on the Draft IWMP can be found in Appendix C.

## 10 CONCLUSION

The CWDM is currently in a supporting role in terms of waste management. The LMs are responsible for waste management service delivery and the CWDM oversees and provides support on all projects. The CWDM is currently busy with a Section 78 investigation to determine whether the outsourcing of the operation and maintenance of a possible regional landfill site in Worcester is possible. Once the Section 78 investigation is completed, information regarding the findings will be added in this report. The outcome from the Section 78 investigation will have an influence on the current waste management systems and projects in the LMs.

The following categories of waste were found to be generated in the CWDM:

- General waste
- Organic waste
- Garden refuse
- Construction and demolition waste
- Hazardous waste
- Health care risk waste
- Other waste such as abattoir, tyre and agricultural waste.

The major health care risk waste (HCRW) generators in the LMs are the private and public hospitals and clinics. The LMs do not provide HCRW treatment and disposal services, resulting in it being the responsibility of the generator to enter a service contract with private service providers for the safe collection, transport, treatment and disposal of such waste. Compass Medical Waste Services is currently (2021) the HCRW service provider for most of the private and provincial hospitals and clinics in the CWDM.

The CWDM includes large agricultural areas. Hazardous waste from these areas includes fertiliser, chemical packaging and expired pesticides. Information on the mass of hazardous waste generated is not readily accessible.

The following provides a summary of the current waste management services delivery in the LMs.

### **Witzenberg LM:**

- The Witzenberg Local Municipality (WLM) recently reported a 100% collection service. Some businesses within the WLM make use of private companies to collect recyclables. Such companies are required to report the mass to the WLM. The WLM has a collection schedule that allows for once-a-week collection in all towns. The WLM provides green and black bags to the households. Only Tulbagh currently (2021) receives clear bags for recycling.
- The WLM is currently in the planning phase for the implementation of waste separation at source in all towns. A pilot project was rolled out in one town

(Tulbagh), which demonstrated that approximately 85% of waste can be diverted from landfills. The WLM currently (2021) provides green bags to households for garden refuse.

**Drakenstein LM:**

- All households are using 240 l wheelie bins. Reportedly, there are 43 informal housing settlements. Each informal housing settlement receives one black bag per week for which they must sign. Black bags go directly to the landfill and clear bags are taken to the Paarl transfer station and Wellington landfill.
- The Drakenstein Local Municipality (DLM) has an active and successful waste recycling programme. This includes separation at source in some of the residential areas of Paarl and Wellington, which currently amounts to approximately 1 to 3% of the total waste by mass ending up in clear bags for further separation and recovery at the Paarl transfer station facility and Wellington landfill.

**Stellenbosch LM:**

- The Stellenbosch Local Municipality (SLM) serves approximately 38 500 households with solid waste management services. The 28 751 collection points are spread across the 22 wards of the municipality. The refuse collection breakdown is approximately 20 000 240 l wheelie bins and 4 000 85-l refuse bags as of 2019. The SLM utilises 11 refuse collection trucks (compactors), operated by more than 60 crew members in a 30-hour working week.
- Separation at source is being implemented by households by utilising a clear bag for recyclables. It is expected that 50% is potentially recyclable.

**Breede Valley LM:**

- The Breede Valley Local Municipality (BVLM) supplied 240 l wheelie bins to all middle and high-income groups in Worcester, De Doorns and Rawsonville towns. The bins are placed outside the households for weekly collection as per the collection schedule. Clear bags for recycling are issued to the residents on a one-on-one basis. This implies that the residents receive an empty bag if they provide a bag filled with recyclable material. The black bags are placed outside the informal settlement households and collected by the BVLM. Waste is collected on a weekly basis from schools and businesses.
- The middle and high-income areas are participating in a separation at source programme. The recyclables from the households are collected by the municipality and transported to private recycling companies. Four organisations are currently registered as waste management companies with the BVLM. All four of the waste management companies report on waste tonnages to the BVLM.

**Langeberg LM:**

- The Langeberg Local Municipality (LLM) provides waste collection services to high, medium and low-income groups, businesses and schools. In 2015, the LLM started to provide 240 l wheelie bins to all households in the main towns. The LLM provides clear bags for recyclables. The LLM has a collection schedule that allows for once-a-week collection in all towns.
- The LLM offers collection of source separated waste to all households and businesses in the main towns. The participation level in low-income areas is lower than that of middle and high-income areas. The LLM distributes two clear bags per week per household in all the towns for collection of recyclables. The recyclables were previously transported to the Ashton Material Recovery Facility (MRF) where the recyclables were further separated and sold – until the Ashton MRF was vandalised in May 2020. Due to the vandalism of the MRF, the recyclables are currently (2021) transported to Southey's recycling, a private recycling company, while the plans for the new MRF next to the Ashton transfer station are developed.

**Cape Winelands DM:**

The following table provides a summary of the number of waste management facilities in the Cape Winelands District Municipality (CWDM).

**Table 10-1: Summary table of the number of waste management facilities in CWDM**

WASTE MANAGEMENT FACILITIES IN CWDM	TOTAL NUMBER OF FACILITIES
Operational landfill sites	15
Closed landfill sites	10
Transfer stations	6
MRFs	3
Public drop-off facilities	7
Composting facilities	3

Illegal dumping is a major issue in all LMs. The LMs host clean-up initiatives to ensure that the LM remains in good condition, but these initiatives are very costly. The LMs are responsible for their own waste awareness campaigns. All LMs have waste awareness initiatives to educate the public on waste and responsible waste management. The CWDM also distributes educational material to schools and informal areas. The educational materials encourage recycling and contain recycling information for different waste streams.

Based on the findings of the status quo investigation, several gaps and needs have been identified. Gaps and needs related to waste management in each local municipality have been identified in terms of each of the following waste management activities:

- 
- Waste minimisation, recycling and reuse initiatives
  - On-site waste containerisation and storage
  - Waste service delivery
  - Waste management facilities
  - Organic waste management
  - Hazardous waste management
  - Waste management collection fleet, plant and equipment
  - Human and financial resource management
  - Waste management information
  - Waste education and public awareness
  - Strategic planning.

While the gap and needs analysis (Section 5) identifies the gaps and needs for all five LMs, the goals identified below are directed at the CWDM. To align the CWDM's goals with those of the NWMS 2020 and the Western Cape IWMP (2017-022), the following goals and associated targets were formulated:

- Goal 1: Promote waste minimisation and recycling
- Goal 2: Improve waste education and public awareness
- Goal 3: Ensure sound budgeting for integrated waste management
- Goal 4: Improve regulatory compliance
- Goal 5: Improve waste information management.

The goals and objectives for the CWDM are not directly related to waste management service delivery since the district municipality only plays an overarching role in terms of waste management. The goals are, however, aimed at improving waste service delivery within each of the five local municipalities.

The next phase of the project is for the Draft IWMP to be issued for public commenting. As part of the development of the IWMP, the consultants will engage with stakeholders and members of the community. Stakeholders and interested and affected parties (I&APs) will be notified that the draft IWMP is out for comments on the CWDM municipal website. The comments on the Draft CWDM IWMP will be incorporated into the Final CWDM IWMP.

## 11 REFERENCES

- CSIR. (2020). *Industry Waste Management Plan*. Department of Environmental Affairs.
- CWDM SEP. (2019). *Cape Winelands District Socio-Economic Profile*. Western Cape Government.
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**APPENDIX A: TABLE 6: SCHEDULE 3 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE AMENDMENT ACT, 2014 ACT NO. 26 OF 2014: CATEGORY A: HAZARDOUS WASTE**

**Table 6: Schedule 3 of the National Environmental Management: Waste Amendment Act, 2014 Act No. 26 of 2014: Category A: Hazardous Waste**

INDUSTRIAL GROUP	WASTE FRACTIONS
<b>1. Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>	(a) hazardous portion of wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
<b>2. Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard</b>	(a) hazardous portion of wastes from wood processing and the production of panels and furniture (b) hazardous portion of wastes from wood preservation (c) hazardous portion of wastes from pulp, paper and cardboard production and processing
<b>3. Wastes from the leather, fur and textile industries</b>	(a) hazardous portion of wastes from the leather and fur industry (b) hazardous portion of wastes from the textile industry
<b>4. Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal</b>	(a) wastes from petroleum refining (b) wastes from the pyrolytic treatment of coal (c) wastes from natural gas purification and transportation

INDUSTRIAL GROUP	WASTE FRACTIONS
<p><b>5. Wastes from inorganic chemical processes</b></p>	<ul style="list-style-type: none"> <li>(a) wastes from the manufacture, formulation, supply and use (MFSU) of acids</li> <li>(b) wastes from the MFSU of bases</li> <li>(c) wastes from the MFSU of salts and their solutions and metallic oxides</li> <li>(d) metal-containing wastes</li> <li>(e) wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes</li> <li>(f) wastes from the MFSU of halogens and halogen chemical processes</li> <li>(g) wastes from the MFSU of silicon and silicon derivatives</li> <li>(h) wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes</li> <li>(i) wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture</li> <li>(j) wastes from the manufacture of inorganic pigments</li> <li>(k) other wastes from inorganic chemical processes</li> </ul>
<p><b>6. Wastes from organic chemical processes</b></p>	<ul style="list-style-type: none"> <li>(a) wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals</li> <li>(b) wastes from the MFSU of plastics, synthetic rubber and man-made fibres</li> <li>(c) wastes from the MFSU of organic dyes and pigments</li> <li>(d) wastes from the MFSU of organic plant protection products, wood preserving agents and other biocides</li> <li>(e) wastes from the MFSU of pharmaceuticals</li> <li>(f) wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics</li> <li>(g) other wastes from the MFSU of fine chemicals and chemical products</li> </ul>

INDUSTRIAL GROUP	WASTE FRACTIONS
<p><b>7. Wastes from thermal processes</b></p>	<p>(a) hazardous portion of wastes from power stations and other combustion plants                      (b) hazardous portion of wastes from the iron and steel industry                      (c) wastes from aluminium thermal metallurgy                      (d) wastes from lead thermal metallurgy                      (e) wastes from zinc thermal metallurgy                      (f) wastes from copper thermal metallurgy                      (g) wastes from silver, gold and platinum thermal metallurgy                      (h) wastes from other non-ferrous thermal metallurgy                      (i) hazardous portion of wastes from casting of ferrous pieces                      (j) hazardous portion of wastes from casting of non-ferrous pieces                      (k) hazardous portion of wastes from manufacture of glass and glass products                      (l) hazardous portion of wastes from manufacture of ceramic goods, bricks, tiles and construction products                      (m) hazardous portion of wastes from manufacture of cement, lime and plaster and articles and products made from them</p>
<p><b>8. Waste from the photographic industry</b></p>	<p>(a) hazardous portion of waste from the photographic industry</p>
<p><b>9. Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks</b></p>	<p>(a) wastes from MFSU and removal of paint and varnish                      (b) wastes from MFSU of other coatings (including ceramic materials)                      (c) wastes from MFSU of printing inks                      (d) wastes from MFSU of adhesives and sealants (including waterproofing products)</p>

INDUSTRIAL GROUP	WASTE FRACTIONS
<b>10. Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydrometallurgy</b>	(a) wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising) (b) wastes from non-ferrous hydrometallurgical processes (c) wastes from sludges and solids from tempering processes (d) wastes from hot galvanising processes
<b>11. Wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>	(a) hazardous portion of wastes from shaping and physical and mechanical surface treatment of metals and plastics (b) wastes from water and steam degreasing processes
<b>12. Oil wastes and wastes of liquid fuels (except edible oils)</b>	(a) waste hydraulic oils (b) waste engine, gear and lubricating oils (c) waste insulating and heat transmission oils (d) oil/water separator contents (e) wastes of liquid fuels (f) hazardous portion of other oil wastes
<b>13. Waste organic solvents, refrigerants and propellants</b>	(a) waste organic solvents, refrigerants and foam/aerosol propellants

INDUSTRIAL GROUP	WASTE FRACTIONS
<p><b>14. Other wastes not specified in the list</b></p>	<p>(a) hazardous portion of wastes from end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance</p> <p>(b) hazardous portion of wastes from electrical and electronic equipment</p> <p>(c) hazardous portion of wastes from off-specification batches and unused products</p> <p>(d) wastes from discarded gases in pressure containers and discarded chemicals</p> <p>(e) wastes from discarded batteries and accumulators</p> <p>(f) wastes from transport tank, storage tank and barrel cleaning</p> <p>(g) spent catalysts wastes</p> <p>(h) oxidising substances wastes</p> <p>(i) aqueous liquid wastes destined for off-site treatment</p> <p>(j) waste linings and refractories</p>
<p><b>15. Construction wastes</b></p>	<p>(a) wastes from bituminous mixtures, coal tar and tarred products</p> <p>(b) discarded metals (including their alloys)</p> <p>(c) waste soil (including excavated soil from contaminated sites), stones and dredging spoil</p> <p>(d) wastes from insulation materials and asbestos-containing construction materials</p> <p>(e) wastes from gypsum-based construction material</p> <p>(f) wastes from other construction and demolition [wastes]</p>
<p><b>16. Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)</b></p>	<p>(a) wastes from natal care, diagnosis, treatment or prevention of disease in humans</p> <p>(b) wastes from research, diagnosis, treatment or prevention of disease involving animals</p>

INDUSTRIAL GROUP	WASTE FRACTIONS
<p><b>17. Wastes from waste management facilities</b></p>	<ul style="list-style-type: none"> <li>(a) hazardous portion of wastes from incineration or pyrolysis of waste</li> <li>(b) hazardous portion of wastes from physico/chemical treatments of waste</li> <li>(c) hazardous portion of stabilised/solidified wastes</li> <li>(d) hazardous portion of wastes from aerobic treatment of solid wastes</li> <li>(e) hazardous portion of wastes from anaerobic treatment of waste</li> <li>(f) landfill leachate wastes</li> <li>(g) wastes from shredding of metal-containing wastes</li> <li>(h) wastes from oil regeneration</li> <li>(i) wastes from soil remediation</li> </ul>

**APPENDIX B: PUBLIC PARTICIPATION COMMENTS AND  
RESPONSES**



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**Ref: P20088\_CORR\_LETTERS\_SENT\_03. RESPONSE TO DEADP - CWDM**

26 January 2021

Deputy Director: Waste Management Planning  
Western Cape Department of Environmental Affairs and Development Planning  
8th Floor,  
1 Dorp St,  
Cape Town,  
8000

Your reference: **DEPARTMENT COMMENTS ON THE CAPE WINELANDS DISTRICT MUNICIPALITY (CWDM) INTEGRATED WASTE MANAGEMENT PLAN (IWMP) STATUS QUO REPORT**

**Attention: Mr A. Hoon**

Dear Sir,

**RE: DEPARTMENT COMMENTS ON THE CAPE WINELANDS DISTRICT MUNICIPALITY (CWDM) INTEGRATED WASTE MANAGEMENT PLAN (IWMP) STATUS QUO REPORT**

Allow us to express our appreciation for the response and valuable contributions made by your department in the process of finalising the CWDM's IWMP (2021-2027). This letter therefore serves to respond to the comments provided to Delta Built Environment Consultants (Delta BEC) by the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP).

The table below provides the comments made on the CWDM IWMP Status Quo Report by the DEA&DP, followed by Delta BEC's response to each comment.

Waste Management Planning								
Status Quo								
	Page	Yes	No	Partially provided	N/A	Comments (reasons for selection Yes/No or Partially provided)	Recommendations	Delta BEC Response
<b>Executive Summary</b>	Page III of 90, 4 <sup>th</sup> paragraph, 3 <sup>rd</sup> bullet							
	V of 90, 1 <sup>st</sup> paragraph, 1 <sup>st</sup> sentence					The plan indicated that the CWDM goals and targets will be aligned to that of the 2 <sup>nd</sup> generation WCIWMP	It is important that the targets and goals also be aligned to the approved NWMS goals, objectives and targets recently approved by DEFF in September 2020 as the DEA&DP will be reviewing the 2 <sup>nd</sup> generation IWMP to align with those as set-out within the NWMS	Noted. Goals and targets were developed to be in-line with NWMS 2020.
	Page VII of 90, Waste Categories					The sentence indicate that businesses only	Please amend.	Amended in Draft IWMP report.

	Generated <b>(Unlabeled Table)</b> , Business Waste					generate non-hazardous waste. This statement is questionable. These businesses do generate hazardous waste types such as fluorescent tubes, batteries etc.		
	<b>Page XI</b> of 90, Compliance & Enforcement, 1 <sup>st</sup> paragraph, 1 <sup>st</sup> and 2 <sup>nd</sup> sentence					The sentence reads "The LM`s <b>are also required to report waste tonnages on IPWIS</b> "	Please note that LM`s do not report to SAWIS, however to the IPWIS.	Amended in Draft IWMP report.
	<b>Page XVI</b> of 90, Glossary of Terms & Abbreviations					DEA&DP = Department of Environmental Affairs and <b>Public Development</b>	The abbreviation should read as "Department of Environmental Affairs and <b>Development Planning</b> "	Amended in Draft IWMP report.
						NWMS = National Waste Management Strategy (Draft, 2019)	Please amend and update to <b>September 2020</b>	Amended in Draft IWMP report.

<b>Background</b>	Page15, 1 <sup>st</sup> paragraph, 1 <sup>st</sup> sentence			<b>X</b>		Refers to Draft NWMS  Stated in a clear and concise manner.	The NWMS has been finalized	Amended in Draft IWMP report.
<b>Purpose of the report (IWMPs)</b>						The sentence reads “.. report is to analyse and quantify all aspects related to current waste management practices carried out <b>by the District Municipality</b> ”	The sentence should read as “ . report is to analyse and quantify all aspects related to current waste management practices carried out <b>within the District Municipality</b> ”	Amended in Draft IWMP report.
	<b>Page 20</b> of 90, 3.1.1 District Municipalities				<b>The sentence reads</b> “However, when the need arises for a <b>regional site</b> , the district can perform this role”			Sentence amended
	<b>Page 38 Of 90, Table 4.8: Access to</b>				<b>Refuse removal (at least</b>	It indicates that the Western Cape received	<b>The collection rate for the WC is currently above</b>	Noted. All data was sourced from SEP 2019

	formal housing				weekly)	a <b>collection rate is about 86,8%</b>	<b>90%</b>	report and will be used for uniformity.
	Page 38 Of 90, Table 4.8: Access to formal housing				Refuse removal (at least weekly)	It indicates that the Western Cape received a <b>collection rate is about 86,8%</b>	<b>The collection rate for the WC is currently above 90%</b>	Noted. All data was sourced from SEP 2019 report and will be used for uniformity.
	Page 40, Table 4.10: Categories of waste generated in WCDM				Business general waste	The sentence reads: "Business general waste typically includes all waste generated by, for instance supermarkets and other businesses that is <b>non-hazardous.</b>	<b>This statement is concerning as businesses do generate hazardous waste, like florescent tubes, batteries etc.</b>	Amended in Draft IWMP report.
	Page 41, Table 4:11: Waste Characterisation Studies					Table illustrating the results of the waste characterisation studies conducted within the municipalities.	It would be appreciated that details be provided with regard to the years when these studies were conducted within each municipality	Respective dates added in Draft IWMP report.
	Page 45, Hazardous Waste, 1 <sup>st</sup> paragraph, 2 <sup>nd</sup>					The sentence reads "The Rose	Rose can appoint or allocate a contractor to collect the waste	Noted and amended.

	<b>sentence</b>				Foundation is currently (2020) <b>responsible for establishing a contractor to collect and</b> recycling the waste oil from vehicle service stations in LLM.”	generated with the CWMD and transport it to a recycler. <b>Rose Foundation do not establish contractors, but rather appoint them to service an area.</b>	
	<b>Page 45, Health Care Risk Waste, 2<sup>nd</sup> paragraph, 5<sup>th</sup> sentence</b>				<b>The sentence reads</b> “Anatomical HCRW and pharmaceutical HCRW is sent to a third party (BCL Medical Waste) for treatment by means of incineration. Schedule 0-4 pharmaceutical HCRW is treated and disposed of at the Vissershok hazardous waste landfill”.	Please in if this is going to the Vissershok (Private) Hazardous Waste Landfill of that of City of Cape Town as previously indicated.	Amended in Draft IWMP report.
	<b>Page 46, Table 4:13, HCRW average summary</b>				The note page 46 indicate that only November & December	Please elaborate on this. Was Compass only appointed from	Yes, Compass was only appointed from Nov 2019

						2019 data was obtained from the service provider "Compass"	November 2019 onwards to provide a service?	onwards.
<b>4.5 Compliance and Enforcement</b>	<b>Page 55, Waste Management Reporting. 1<sup>st</sup> paragraph. 3<sup>rd</sup> sentence</b>					<b>The sentence reads</b> "All five of the LMs report waste tonnages on <b>both IPWIS and SAWIS</b> ".	Please note that all municipalities report their waste tonnages to the IPWIS, and this information is exported to SAWIS. <b>Municipalities do not report to both these information systems to prevent double reporting</b>	Amended in Draft IWMP report.
	<b>Page 58, WLM – Map illustrating the Waste Management Facilities</b>					<b>The co-ordinates of the proposed TFS is provided and this proposed facility is not plotted on the map</b>	<b>Please plot or insert the proposed TFS facility on the map</b>	Location is now reflected on map.
	<b>Page 60, Table 4:19 DLM Waste Management Facilities</b>					<b>Klapmuts Landfill &amp; Klapmuts Transfer Station is not operated by the DLM</b>	<b>These facilities are owned by the Stellenbosch Municipality. Please remove these from Table: 4:19 and the unlabeled map on page 61 illustrating</b>	This is as per the DLM IWMP.

							<b>these facilities. Please ensure that all labels are on the same pages as the maps.</b>	
<b>Public Participation</b>			<b>X</b>			SQ report	<p>During the development and implementation of the IWMP, consultation will be required. The process of consultation should be included. Two levels of consultation need to be undertaken:</p> <ul style="list-style-type: none"> <li>- Consultation with Authorities (local, district, provincial).</li> <li>- Public and other interested and affected parties (I&amp;APs).</li> </ul> <p>(a) Process to include notifications (i.e. newsletters, public notices, website, public announcements, etc.) and comments received from</p>	<p>Public participation will take place once the Draft IWMP is developed. The Public will be notified that the Draft IWMP is out for commenting and where the document can be found. A period of one month will be allowed for commenting on the Draft IWMP.</p> <p>Proof of the advertisement, comments by the public and amendments to the Draft IWMP report will be included in the Final IWMP.</p>

						Stakeholders. (b) Proof of public participation (i.e. newsletters, attendance registers, etc.).	
<b>Strategic linkages</b>				<b>X</b>		Section is detailed and well done except for linkages with SDF's and IDPs	Show waste management linkages with the SDF and IDPs of the Municipalities and District under section 3.2.3  Added CWDM SDF & IDP linkages.
<b>Geographical area, geo-physical and geo-hydrological conditions</b>				<b>X</b>		This has not been included.	This section must include the geographical area to which the plan relates. This involves the total area, roads infrastructure, wards under the municipality and where possible a map depicting areas described under this section.  Noted and added in Draft IWMP.
<b>Legislative requirements</b>		<b>X</b>				This has been well done.	Noted.

<b>Demographic profile</b>		X				Well done WC socio economic profiles from 2019 used as source.		Noted.
<b>Services and delivery</b>		X				Well done WC socio economic profiles from 2019 used as source.		Noted.
<b>Waste generation and composition</b>		X				Detail has been provided for all LMs and the District.		Noted.
<b>Organisational structure and staff capacity</b>				X		Organogram not included.	Organogram including vacancies and plans to fill vacant posts.	CWDM does not have an organogram. It is currently added to their goals.
<b>Waste management cost and financing</b>						A global figure is provided but this must be broken up further.	The budget must be provided in greater detail including Capital and operational budgets.	Noted. Info as received from the CWDM.

Waste Management Licensing								
Status Quo								
Waste Management Facilities	Operational sites							
		Yes	No	Partially provided	N/A	Comments (reasons for selection Yes/No or Partially provided)	Recommendations	Delta BEC Response
	<b>Names:</b>	x					The names of all sites were provided in tables for the <ul style="list-style-type: none"> <li>• Witzenberg LM</li> <li>• Drakenstein LM</li> <li>• Stellenbosch LM</li> <li>• Breede Valley LM</li> <li>• Langeberg LM</li> </ul>	
<b>GIS location:</b>			x			Not all sites have GIS locations	This needs to be addressed in the report per municipality	Info as received from the respective LMs.

	<b>License details License/permit no., Description of activities Location(coordinates)</b>			<b>x</b>		Not all licence details were correct.	Klapmuts transfer station belongs to Stellenbosch Municipality, and not Drakenstein Municipality.	This is as per the DLM IWMP.
	<b>Is the Waste Management officer mentioned?</b>			<b>x</b>		This is a District Municipality. However, The Deputy Director: Project Management, Mr Christo Swart, currently oversees all waste management-related operations and projects.	This needs to be addressed in the report per municipality	This has been addressed in 4.8 of the report.
	<b>General management of the site (windblown litter; storm water, access control, compaction, water quality monitoring etc)</b>				<b>x</b>	This is a District Municipality. They do not have WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	This has been addressed in 4.3 of the report.
	<b>Are complaints from the public addressed?</b>		<b>x</b>			There was no mention of complaints in the report. Compliance and enforcement, including different by-law of municipalities are included. DM's are not responsible for waste related complaints.	This needs to be addressed in the report	Added in summary table for each LM detaining the complains.
	<b>Remaining airspace (m<sup>3</sup>):</b>				<b>x</b>	The CWDM does not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.

	<b>Lifespan (years):</b>				x	However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Informal salvaging:</b>		x			This is not mentioned. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Internal audits (frequency; level of compliance; identification of main issues):</b>				x	This is not applicable. The CWDM does not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>External audits (frequency; level of compliance; identification of main issues):</b>				x	This is not applicable. The CWDM does not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Details of any compliance enforcement actions mentioned? – Current conditions (SQ) / Any improvement?</b>				x	This is not applicable. The CWDM does not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Do they have an organic waste diversion strategy in place at the facility? Please specify</b>				x	The CWDM does not have a WDF. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Addressed in 4.6.2.1 in report.
	<b>Closed and decommissioned sites</b>							
		<b>Yes</b>	<b>No</b>	<b>Partially provided</b>	<b>N/A</b>	<b>Comments (reasons for selection Yes/No or Partially provided)</b>	<b>Recommendations</b>	

	<b>Names:</b>	x			All names are given.		Noted.
	<b>GIS location:</b>			x	Not all GIS locations given. Info from Stellenbosch LM is missing.	This needs to be addressed in the report	As per info received from the respective LMs. The Stellenbosch info will be added in the draft IWMP once received from the LM
	<b>License details:</b>			x	Not all licence details are given. Info from Stellenbosch LM is missing.	This needs to be addressed in the report	As per info received from the respective LMs.
	<b>Are there any illegal activities taking place?</b>			x	No mention is made regarding illegal activities at closed sites.	This needs to be addressed in the report	Added to the draft IWMP.
	<b>Internal audits (are they being done; how frequent; level of compliance; do they identify the main issues)? Action plans to improve conditions? Are they being submitted and implemented?</b>			x	This is not the function of the CWDM. CWDM do not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>External audits (are they being done; how frequent; level of compliance; do they identify the main issues)? Action plans to improve conditions? Are they being submitted and implemented?</b>			x	This is not the function of the CWDM. CWDM do not have any WDFs. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Details of any compliance enforcement actions? Action plans to improve conditions?</b>			x	The details are not mentioned. However, this needs to be addressed per municipality within the district	This needs to be addressed in the report	Added in summary table for each LM.

		Yes	No	Partially provided	N/A	Comments (reasons for selection Yes/No or Partially provided)	Recommendations	
<b>Contaminated land</b>	<b>Name</b>		x			No mention of contaminated land sites was made.	This needs to be addressed in the report	No contaminated land sites were reported from the respective LMs.
	<b>Location</b>		x			No mention of contaminated land sites was made.	This needs to be addressed in the report	No contaminated land sites were reported from the respective LMs.
		Yes	No	Partially provided	N/A	<b>Comments (reasons for selection Yes/No or Partially provided)</b>	<b>Recommendations</b>	
<b>Waste related complaints (i.e. number and type).</b>	<b>Is there a system in place to capture waste-related complaints?</b>		x			There was no mentioned of complaints in the document.	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Number of complaints:</b>				x	There was no mentioned of complaints in the document.	This needs to be addressed in the report	Added in summary table for each LM.
	<b>Type of complaints:</b>				x	There was no mentioned of complaints in the document.	This needs to be addressed in the report	Added in summary table for each LM.
		Yes	No	Partially provided	N/A	<b>Comments (reasons for selection Yes/No or Partially provided)</b>	<b>Recommendations</b>	
<b>Illegal dumping and costs associated with clean-up efforts.</b>	<b>Names of illegal dumping sites:</b>			x		The CWDM has included illegal dumping information of the Municipalities in its area.	This needs to be addressed and taken into account in the report	Section 4.6.3 speaks to illegal dumping.
	<b>Locations:</b>			x		This is partially provided. But not in detail.	This needs to be addressed and taken into account in the report	As per info received from respective LMs. Exact names of locations for illegal dump sites could not

								be obtained as they are scattered throughout a town/area.
	<b>Length of time in existence:</b>		x			This is not mentioned.		Noted.
	<b>Costs associated with clean-up efforts:</b>			x		Cost of cleaning up of illegal dumping of the Local Municipalities have been included. All, but Stellenbosch Municipality.	Please include Stellenbosch Municipality's information as soon as it is available.	Still awaiting info from SLM. Information will be added in the Draft IMWP

<b>Waste Information Management:</b>								
<b>Status Quo</b>								
		Yes	No	Partially provided	N/A	Comments (reasons for selection Yes/No or Partially provided)	Recommendations	Delta BEC Response
	<b>Is the status of IPWIS registration for all waste management facilities accurately indicated?</b>				N/A	The Cape Winelands District does not have any waste management facilities under its operation.		Noted.
	<b>Is the status of IPWIS reporting for all waste management activities accurately indicated?</b>	X				The Cape Winelands District does not have any waste management facilities under its operation. The comment below was made in the IWMP Status Quo Report:		Noted.

						<p><b>Page 55 of 90; 4.5.1 WASTE MANAGEMENT REPORTING</b></p> <p>“All five of the LMs report waste tonnages on both IPWIS and SAWIS.”</p> <p>This comment only applies to this question.</p>		
	Where applicable is waste calculator (what about weighbridges?) reporting for relevant waste management facilities indicated?				N/A			Noted.

<b>Waste Policy and Minimisation:</b>								
Status Quo								
	Waste Minimisation Initiatives	Yes	No	Partially provided	N/A	Comments (reasons for selection Yes/No or Partially provided)	Recommendations	Delta BEC Response
	<b>Municipal:</b> Type of intervention:	x				Various initiatives happen at the local municipalities within this district.		Noted.
	<b>Location:</b>					All municipalities within CWD.		Noted.
	<b>Diversion figures:</b>	x				All are provided on IPWIS and SAWIS.		Noted.
	<b>Private:</b> Type of intervention:	x				Various private companies operate within the district.		Noted.
	<b>Location:</b>					All.		
	<b>Diversion figures:</b>			x		Most are required to report figures to the local municipalities.		Noted.

	<b>Status of Municipal By-law (outdated; updated; busy with review?):</b>				x	They do not manage collection or disposal, but have a Municipal Health by-law that focuses on waste. It is stated in the IWMP that this by-law is outdated and is not aligned to NEM: WA (Act 59 of 2008)	The District needs to update the waste sections in its by-law and align it to NEM: WA (Act 59 of 2008)	Noted and added in goals and targets.
	<b>Waste awareness and education campaigns.</b>	x				The District distributes waste awareness and educational materials to schools in informal areas.	More resources and information on waste management and minimisation could be placed on the District municipalities website.	Noted.
	<b>Does the municipality have a waste awareness strategy in place?</b>		x			They assist the local municipalities where needed.		Noted.
	<b>Location:</b>							
	<b>Type of campaign:</b>	x				Various listed for the different local municipalities in the district.		Noted.
	<b>Is there a list/log of the campaigns run since the last IWMP?</b>		x				Please addressed if relevant	

Should you have any concerns or queries, please do not hesitate to contact the undersigned.

Yours sincerely,

A handwritten signature in black ink that reads "CStander". The signature is written in a cursive style with a large, prominent 'C'.

Chanté Stander  
Head of Department: Waste management