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BACKGROUND

1.2 INTRODUCTION

The Cleanest Town Competition (CTC) was initiated in 2001 with a primary focus in implementing the National Waste Management Strategy. The key elements were reducing, recycling and reusing waste materials. Although the CTC was fairly successful in achieving its primary objectives, developments within the greening movement require the modifications of the concept to embody other elements which are outside the waste management category.

The incorporation of the new elements is justifiable within a new name, hence the Greenest Municipality Competition (GMC). The GMC enhances CTC by incorporating new elements and providing a broader focus. GMC will link to other global and national initiatives, e.g. green goal, greening the nation, reducing greenhouse gases etc.

1.2 THE RATIONALE FOR THE GMC

The GMC needs to address environmental protection, social upliftment and economic growth. This also forms part of the recommendations of the 2006/2007 CTC Report. This is a move from a predominantly environmental focus to sustainable development focus.

1.3 ELEMENTS OF THE GMC

The GMC consists of seven core elements, namely:

- Waste Management
- Energy Efficiency and Conservation
- Water Management
- Landscaping, Tree Planting and Beautification
- Public Participating and Community Empowerment
- Leadership and Institutional Arrangements
- Presentation
GMC STEERING COMMITTEE CONTACT DETAILS

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<th>NAME</th>
<th>ORGANISATION</th>
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1.4 GMC PANEL MEMBERS

A panel of evaluators is constituted at a provincial level by the provincial steering committee of people mandated by the heads of department. The steering committee undertook site visits to all local and metropolitan councils that had entered the competition and winners were recommended to the heads of department. The Members of Executive Council (MECs) for the Department of Environmental Affairs (DEA) made all announcements and handing over of prizes. All provincial winners were submitted to the DEA for evaluation in order to select national winners and runner-up.
TABLE 1: GMC PANEL MEMBERS 2013/2014

### Metropolitan Council

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<tr>
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### Local Municipalities

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<tr>
<td>1. Russell Baloyi</td>
<td>EniviroDev</td>
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### 1.5 APPOINTMENT OF NATIONAL EVALUATION PANEL

A panel constituted on a multi-stakeholder basis assessed the competition entries and they selected the winners. The panel includes representatives from government organisations. Critically, the panel has valuable expertise, insight and sensitivity of environmental, social and economic issues.
1.6 DEPARTMENT LIST OF EVALUATORS

Metropolitan Councils team

1. Mr. Mlungiseleli Binda
2. Mr. Skhumbuzo Mpungose
3. Mr Shadrack Khosa
4. Mr Mziyanda Mkosana
5. Ms Mapato Baloyi (Support)
6. Ms Kgomotso Mokgoko (Support)

Local Municipality team

1. Mr. Russell Baloyi
2. Mr. Mandla Mentoor
3. Mr Phuthi Mabotha
4. Ms Ndala Dudu
5. Ms Queen Zungu
6. Mr Mandla Shabangu (Support)
7. Ms Kgomotso Mokgoko (Support)

1.7 CRITERIA USED BY PANEL MEMBERS

The panel members were guided by a selection criterion comprising of the following themes and points allocation:

<table>
<thead>
<tr>
<th>Theme</th>
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<td>Waste Management</td>
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<td>Energy Efficiency and Conservation</td>
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<td>Water Management</td>
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<td>Landscaping, Tree Planting and Beautification</td>
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<td>Public Participating and Community Empowerment</td>
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<td>Leadership and Institutional Arrangements</td>
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<td><strong>Total</strong></td>
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In order to better understand and observe greening efforts in each municipality, two distinct platforms for assessments are equally used in all municipalities assessed and there are formal presentations by the municipality and site visits. During formal presentations municipalities are given an opportunity to present the background and locate greening in the broader municipal plans by reflecting on plans, existing projects, leadership, community participation, etc. Site visits are divided into two, with some identified and taken along with the municipal representatives whilst others are chosen and or observed by the panel members on their own.
SUMMARY REPORTS

2.1 METROPOLITAN COUNCIL

2.2.1. City of Johannesburg

Waste Management

2.2.1.1. Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Integrated Waste Management Plan (IWMP) document has covered all relevant environmental legislation. The document is accessible, even on CD format.
- This plan was adopted by the Council in 2011 within the Metro and approved by the MEC of the province.

Challenges:
- The geographic area is not well indicated in the document. There is no map. Although all the relevant legislation is quoted, the document needs to be updated with respect to the latest South African Waste Information Centre (SAWIC) regulations. There was a reference made to old 2009 waste information regulations. The Integrated Waste Management Plan is silent of the disposal of special waste streams, especially mercury disposal.

Overall observations
- The Metro did not demonstrate the implementation of the plan.

Recommendations:
- The Metro should commit to carry on with the good work they are doing on the implementation of the IWMP as the 2016 target date is coming closer.
2.2.1.2. What does the municipality do to prevent and minimise waste generation

Strengths:

Challenges:
- The Metro has admitted that housekeeping is still a challenge at the moment. Reduction of waste generation from households is still farfetched. Separation of waste in areas designated for recycling is still poor. It is still common to find mixture of waste.

Overall observations
- Like many other municipalities, the City of Johannesburg has not yet developed a plan focusing on the prevention of waste. Many of their efforts are focused on recycling of waste that has already been generated.

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2.2.1.3. What does the municipality do to re-use & recycle waste

Strengths:
- The Metro has recently (through Pikitup) embarked on a big separation at source drive. They recycle paper, plastic, glass and cans. The target is to recycle 160,000 tons per annum (20% Landfill site diversion by 2016) by 2016. It is planned that the project will be city wide by 2015. The project started in the Watervaal area and is being rolled out to include Zondi, Diepsloot, Orange farm and Ivory Park.

- In this project Pikitup supplied co-operations with sorting stations, trucks, scales and machinery (mainly by buyers of the materials). These co-operations run buy-back centres (currently 11) throughout the City. They collect their own waste but are also supplied by Pikitup trucks with recyclable waste. Once sorted and bailed these volumes are sold to buying companies and the co-operations get to keep the money made. The beginning of the chain is at the household separation and Pikitup provides two recycling bags (clear for recyclables and white opaque bag for paper). There are 331,465 households participating currently.

- There is a satisfactory arrangement by the Metro to ensure that a township buy-back centre is sustainable. The buy-back receives waste material for free. The waste material is already separated from source when it is delivered. The buy-back centre is creating sustainable job opportunities for the beneficiaries of the project. There are about 500 additional indirect beneficiaries of a buy-back centre. These constitute informal waste collectors who supply to the buy-back centre for payment.

- Pikitup also manages one composting site (42000m3 per annum capacity) at the closed Panorama landfill site.
- The City plans to create 15 more buy-back centres and activate 3 crusher plants for building rubble.
Challenges:

- According to the Metro, only 60% is to be diverted away from the landfill sites. Currently there is only 18% participation from households. Some waste material received into the buy-back centre is contaminated. This is an indication of inadequate awareness at a community level. The Material Recovery Facility was still not operational at Robinson landfill site.
- It was noted that not adequate Personal Protective Equipment (PPE) is supplied to workers on site at the Zondi buy-back centre. A worker was observed working in a very noisy area without ear plugs. Visual impact is also an issue at the buy-back centre. The buy-back centre is not yet well organised. There was no signage at the entrance.

Overall observations/recommendations:

- The amount of recyclables shows an increasing trend over a period of 12 months.
- The MRF must be operational which will also create some job opportunities.

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2.2.1.4. Waste Disposal Facilities

**Landfill sites**

**Strengths:**
- City of Johannesburg has four operational landfill sites and many closed ones. Three out of the four landfills are GLB- (Robson Deep, etc) and one is GLB+ (Goudkoppies). All the operational Landfill Sites (LFS) are managed by Pikitup. The manner in which these facilities are run is satisfactory: The landfill site is fenced using palisade fence; were two front end loaders/bulldozers on site that double up as compactors as well. The panel visited Robson Deep and here the weighbridge was in place and fully functional. The monitoring is done every quarter instead of every two years as per the license requirements. Waste is distributed thinly on the working surface and covered every day at about 17h00 in the afternoon.
- The Metro is up to date with all environmental requirements.
- Pikitup has established a well-integrated waste collection service. Before waste reaches a landfill site, there are depots, garden refuse site, transfer stations and compost plant where waste is sorted and reclaimed for recycling purposes.

**Challenges:**
- The methane gas extracted from the landfill site is not yet generating electricity. The gas was being flared at the moment. Access on site is a challenge during rainy season, especially to those people who do not have proper vehicles.
Overall observations

- The landfill site is run fairly well.
- The only recycling taking place at the landfill site is through waste pickers. These pickers are not organised and collect waste from the working phase. However there are plans to formalise them through the establishment of a Material Recovery Facility (MRF). The MRF is already in place but there has been a break down that has been the problem for quite some time.
- **Robson Deep Landfill site:** has a waste to Energy system run by EnerG Systems in a 20 year contract. Here they convert landfill gas to electric energy. The project is registered as a CDM project and is amassing Carbon Credits (CER). The landfill site produces 19 megawatts (MW) and has just signed a Power Purchasing Agreement (PPA) with Eskom so that they supply the electricity they generate to the grid. City of Johannesburg claims this is the largest waste to energy project in South Africa. It has 64 wells collecting LFG from the site.
- **Marie Louise Landfill site:** Construction of waste to energy plant completed in April 2012. It has 28 wells in the waste site for collection of the LFG.

**Recommendations:**

- Landfill gas extraction project was established at Robinson landfill site; however there was a breakdown during the date of the site visit.

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2.2.1.5 Storm water management

Leachate management

Monitoring activities

**Strengths:**
- The landfill sites were designed to be B-. Therefore there is no leachate generation from the sites. Water samples are taken to do monitoring on a quarterly basis.

**Challenges:**
- Storm water is a challenge during rainy seasons and this may lead to it contaminating the surrounding natural environment.
- There was noticeable stagnant water on site which was not draining out.

**Overall observations/recommendations:**
- The facility must ensure that contaminated storm water does not mix with clean storm water that is discharged into the natural environment.
2.2.1.6. Transfer Stations

Strengths:
- None

Challenges:
- None

Overall observations
- None

Recommendations:
- None

2.2.1.7 Drop-off areas

Strengths:
- The network of waste drop-off sites is well organised. All the drop-off centres in the City of Johannesburg are taking only garden refuse and some are being used as composting sites. A compost plant was established at Panorama to deal with garden refuse.
- City of Johannesburg has 43 garden sites. 26 of the sites were developed before the Environmental Impact Assessment laws and are therefore not permitted while the rest (17) are fully licensed

Challenges:
- Drop-off stations are not adequate at informal settlements. Illegal dumps were observed in areas that could be used as waste transfer stations.
Overall observations

In most of the areas visited by the panel illegal dump sites where people disposed of builders’ rubble were observed.

Recommendations:
- It is recommended that a waste transfer station is established at Diepsloot at an illegal dump spot.
- The Metro needs to develop an effective strategy for managing of builder’s rubble as this can be used for improving the quality of their roads at the landfill sites.

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### 2.2.1.8 Medical waste management

**Strengths:**
- Medical waste was not observed from any landfill sites. It was reported that like many municipalities medical waste is handled by professional private service providers.

**Challenges:**
- None

**Overall observations**
- It was observed by the Judges that there was no evidence of any HCRW reaching the visited landfill sites.

**Recommendations:**
- None

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2.2.1.9 General cleanliness in Town

Strengths:
- It was noted that the city has adequate street bins provided with plastic bags. Each street in town had a waste receptacle.
- Informal recyclers are very common in almost all the places.

Challenges:
- Illegal dumping uses a substantial portion of the work time of the municipal resources. There was a lot of building rubble being dumped at the verges of the Central Business District (CBD). Open spaces seem to be the target areas for illegal dumping.
- Mine dumps in the area are also a challenge because they generate dust.

Overall observations
- It was observed that informal waste collectors in town are a road hazard. They push waste trolleys inside the main roads without any reflector vests.
- The CBD which is Johannesburg is not very clean. Why litter is visible on some undeveloped areas of the city, the overall outlook of the city was not bad.

Recommendations:
- The City of Johannesburg should find ways to organise the trolley pushers and workshop them on how best they could do their work.

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2.2.1.10 General cleanliness of residential areas

Strengths:
- The Expanded Public Works Programme workers were available to assist with cleaning in townships. The verges of the main roads along Diepkloof were satisfactory. Informal waste reclaimers are taking the opportunity to recover recyclables from households located in suburbs.

Challenges:
- Illegal dumping was still a challenge in open spaces.

Overall observations
- The panel visited a number of townships namely Diepkloof, Orlando West, Dube, Khwezi, Jabulani, Zondi, Zola, etc. The townships were found to be fairly clean in spite of the problem of illegal dumping that was observed.
- The mixture of waste material inside recycling containers at Dube Park was still a challenge.

Recommendations:
- It is recommended that public skips or drop off centres are provided to townships especially in areas used as dumping spots.
2.2.1.11 General cleanliness of industrial areas

Strengths:
- It was observed that most street bins are provided with plastic bags around the industrial areas. Waste separation from source at Fairland was operational.

Challenges:
- Verges maintenance and grass cut was not satisfactory at Booysens.

Overall observations:
- The panel visited a few Industrial areas namely Turfontein and Booysens Industrial areas. These were fairly clean and did not seem to have a problem with illegal dumping. Littering was visible but was not at alarming rates.

Recommendations:
- The industrial areas were satisfactory neat and well maintained.

1.12 Education and awareness programmes about waste

Strengths:
- The Metro has developed a lot of educational campaigns which were printed on T shirts, pamphlets and burners. They also have community campaigns, media talks and door to door outreach programs. The municipal fleet is well branded with educational environmental messages. There is Trash to Treasure programme operational in the area. Eco rangers are recruited from the community and provided with training.

Challenges:
- None

Overall observations:
- Due to limited budgets, environmental programmes can not cover every corner of the city at this stage.

Recommendations:
- Evidence of the educational material that had been developed for the city was seen.

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2.2.1.13 Energy Efficiency and Conservation

Strengths:
- The Metro has implemented a Bus Rapid Transit (BRT) transport to reduce traffic on the road. The bus transports a large number of commuters instead of each person using a private car. It also has a BRT bus depot at Dobsonville built according to the green building concepts. The amount of electricity used is less. Buildings have wide plastic windows and extensive ventilation to allow natural air. The depot is vented on top to allow natural air and as a result there is no air conditioning required inside the building.

Challenges:
- None

Overall observations
- From previous judging it is know that the City of Johannesburg also has another Green Building that they use to demonstrate the concepts to the general community.

Recommendations:
- City of Johannesburg should find a way to incorporate the green building concepts into their building plans for all households and commercial properties being built in their area

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2.2.1.14 What is the Municipality doing to reduce their carbon footprint

Strengths:
- The implementation of the Bus Rapid Transit system takes 60 000 people per annum. There is a park and ride operation from townships.
- Street lights are operated on a solar system.
- Gautrain is also used to transport people in bulk and therefore take a lot of cars off the road.

Challenges:
- The fact that the waste to energy plant the landfills are not yet fully functional is an opportunity loss for coal burning reduction
Overall observations

- The Bus Rapid Transit system is not accessible enough to the general public.
- The Metro is not allowing private renewable generators to supplement the grid
- The big zoo (Johannesburg) that has biogas harvesting, composting area and solar panels for lighting and energising the electric face. This Johannesburg Zoo also has a big recycling project running to collect the main us recyclables.

Recommendations:

- While the Bus Rapid Transit takes many of the cars off the road, more car traffic jams are still an issue due to reduced lanes.
- The Bus Rapid Transit is still underutilised. The Metro must ensure that the system is user friendly.
- National Energy Regulator of South Africa (NERSA) has approved connection of private green energy generators to grid and so the Metro is losing an opportunity to reduce their carbon footprint.

2.2.1.15 Energy Audits

Strengths:

- The Metro has a fully functioning energy section. The section has extensive plans for energy efficiency in the future. Technological efficiency is at the centre of their operation. Smart metering was approved and has commenced in certain areas for both electricity and water. There is 3700MW max demand for City Power at peak times.
- The Metro estimates that their technical losses are about 9% and over 10% loss is non-technical

Challenges:

- The Metro indicated that they have a challenge with poor data quality at this stage.

Overall observations

Recommendations:

- During the site visit street lights were noticed that they were not kept on during the day. This was an indication of good maintenance and functioning of the energy section.
2.2.1.16 Awareness

**Strengths:**
- Solar geyser has been implemented in most places. Reconstruction Development Programme houses at Cosmo City were fully installed with solar heating. This will reduce energy demand from the conventional electricity network.
- Smart metering (for above 1000kWh users and split prepaid meter for those below) and time of use billing system. The City has also installed triple relay systems to control geysers, stoves, etc. in times of high energy demand.
- Metro switched to solar energy to power their street lights. The Metro loses about 9% of their electricity and it is mainly due non-technical losses.
- The Metro also realised that Wastewater treatment plants (WWTPs) take up a lot of energy. So they introduced technology to produce power for running them using the WWTP sludge. This is being implemented at the Northern Works Plant. The generation is 1.2 MW and accounts for 55% of the energy required to run the plant. The sludge is heated and the resulting gas scrubbed before used to generate electricity. The idea was stolen in Germany but the project is 100% South African. Carbon volumes in the sludge are stabilised by ice cream from shops to maintain a steady feed. The resulting sludge from the process is used as fertilizer by farming industry. Upon its completion the biogas energy plant will provide 60% of the energy required to run the WWTP. It is currently covering 16% with two engines instead of five.

**Challenges:**
- Provision of electricity to informal settlements is still a challenge. There is a lot of theft and unaccounted electricity usage from these areas.

**Overall observations**

There is generally a very good coverage in the Metro in terms of solar water geysers.

**Recommendations:**
- None

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2.2.1.17 Strategy

**Strengths:**
- Smart metering makes it possible to control usage of electricity by the consumers. The Metro can remotely control geysers from each household.
- Volt VAR optimisation exercise has been identified by City of Johannesburg for prioritisation.

**Challenges:**
- Smart metering has been introduced only to a very few users.
2.2.1.18 How does the municipality deal with the management of mercury

**Strengths:**
- None

**Challenges:**
- Mercury bulb / lamp collection points were not available.

**Overall observations**
- The IWMP of the City of Johannesburg was also silent on the management of mercury lamps.

**Recommendations:**
- None

### Water Management and Conservation

**Strengths:**
- None

**Challenges:**
- The Metro reported that they cannot increase the extraction of additional fresh water for the next 10 years.

**Overall observations**
- The City does not have purification plants. The purification is done by Rand water and the City buys water and stores it in the reservoirs all around its area of jurisdiction.
- Due to the City only owning reservoirs Blue Drop assessments were performed on their reservoirs.

**Recommendations:**
- The Metro water infrastructure network is well maintained. The overall observation was generally satisfactory.
2.2.1.20 What is the municipality’s water status is? Green status?

**Strengths:**
- None

**Challenges:**
- None

**Overall observations**
- City of Johannesburg has seven Waste Water Treatment Plants (WWTP). All of the seven WWTPs were assessed for Green drop in 2012. A total of five out of seven received the green drop status.

**Recommendations:**
- They need to improve the operations at the remaining two plants so that they take part in the green drop assessments

2.2.1.21 Water management in Municipal buildings

**Strengths:**
- None

**Challenges:**
- None

**Overall observations**
- None

**Recommendations:**
- None

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2.2.22 Water management in parks and gardens

Strengths:
- The Metro has a Catchment Management Policy
- The City also has Open Space Development and Management Framework

Challenges:
- None

Overall observations
- No water wastage was observed in community parks. This could have been due to people guarding the infrastructure.
- The gym park at Zola has artificial grass and so does not need much watering

Recommendations:
- None

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2.2.23 Does the Municipality do water audits? Evidence is needed.

Strengths:
- The City has a water conservation and demand management strategies and that has reduced the demand by 6% already.

Challenges:
- None

Overall observations
- The water audit was done as an information document to inform the water conservation and demand management strategies.
- The water loss for the City is currently at about 30%.
- Rand water has refused to increase the water allocation for the City this year. Instead a Provincial directive is in place for the City to reduce their water demand by 19% of which they have currently managed to reduce it by only 6%. A significant percentage of the of the demand is caused by ageing infrastructure and therefore will take huge injection to reduce

Recommendations:
- None

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2.2.1.24 Sewer Management

Strengths:
- The Waste Water Treatment Plants are operated correctly and the Metro has been able to identify that they have a very high energy demand.

Challenges:
- The remaining two Waste Water Treatment Plants must be assessed as well.

Overall observations
- The Metro received five out of seven green drops.

Recommendations:
- None

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2.2.1.25 Re-use of water – use of Grey Water and Black Water

Strengths:
- Use of grey water at the Bus Rapid Transit depot for washing buses.
- There is harvesting of rain water at the Bus Rapid Transit depot.

Challenges:
- None

Overall observations
- None

Recommendations:
- None

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2.2.1.26 Water awareness actions by the Municipality

Strengths:
- The City has Edu-centres at Dorothy Nyembe Park. Here the community is educated on water conservation and environmental stewards are born from this project. They are kind of ambassadors that stay with the communities and constantly educate the public on environmental issues.
- The Mascot called Tappie (taken from the word Tap) concentrates on water conservation in his/her educational programmes.
- The City also had operation “Gcina Amanzi” that is run in its jurisdiction.
- All of these initiatives are driven by the Urban Water Management Cluster.

Challenges:
- None

Overall observations:
- The schools were observed to have rain water harvesting tanks.

Recommendations:
- None

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2.2.1.27 Water Conservation Strategy / Plan

Strengths:
- The City has a water conservation and demand management strategies.

Challenges:
- None

Overall observations
- None

Recommendations:
- None

No  Yes
2.2.1.28 Landscaping, tree planting and beautification

Strengths:
- The Metro is driven by the community needs and wants instead of imposing programmes. There officials working closely with the community who identify these needs for implementation.
- The City is known to be the tree planting capital of the world with over 10 million trees.
- The City has an Eco-cemetery at Diepsloot called Diepsloot Memorial Park.
- The City has the Anti-vision which will link communities towns and townships using green corridors.
- The City built 2 343 parks in 10 years and these cover 22000 hectares of Municipal land.

Challenges:
- Tree plantation still need to be expanded and reach all housing developments especially townships and low cost housing.

Overall observations
- None

Recommendations:
- Landscaping was satisfactory along the main roads. Partnerships with local Community Based Organisations (CBOs) are commendable.

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2.21.29 Does the Municipality have a policy on greening actions

Strengths:
- The Metro focus on drought and frost resistant tree plantations.
- Indigenous tree are reserved for parks while exotic trees are reserved for urban areas.

Challenges:
- Planting indigenous trees along the main road is perceived as a challenge hence they need a lot of pruning. They conflict with pavements and power lines.

Overall observations
- None

Recommendations:
- Landscaping is satisfactory along the main roads and streets. There is a clear sustainable maintenance.
2.2.1.30 Tree planting in townships

Strengths:
- The Metro displayed commitment into greening the area. A total of 3000 trees were planted during the development of the Bus Rapid Transit system alone.
- The City is on a mission to create green corridors to link the suburbs so that people can walk more generally and to work. Many of the highways to townships and are planted with trees. The City has the most beautiful parks in townships (Zola, Soweto, etc.) and these are also equipped with outdoor gyms and playing equipment.

Challenges:
- Tree plantations and landscaping, however, is not enough in residential areas, especially RDP housing developments.

Overall observations
- None

Recommendations:
- It is recommended that greening must be extended into all Reconstruction Development Programme (RDP) housing developments. A target must be set for each year. The plantations must include fruit trees to be maintained by the households themselves.
2.2.1.31 Invader plant control

Strengths:
- A lot of indigenous plants were used at the community parks. Working for Water is supported in the area. The Metro differentiates between Alien and invader trees, than address them accordingly.

Challenges:
- The evaluation team did not observe any of these projects who are dealing with alien eradication.

Overall observations
- None

Recommendations:
- None

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2.2.1.32 Public Participation and Community Empowerment

Strengths:
- The Metro works closely with the communities through its agents located in townships. Structures are in place to engage with community members during the establishment of projects. Reports indicate that public participation was conducted satisfactory during the development of Dube Community Park.

Challenges:
- It was noted as a concern that security is not provided to guard projects once they have been established to protect them against vandalism. There was no security at Dube Park.

Strengths:
- The Metro works closely with the communities through its agents located in townships. Structures are in place to engage with community members during the establishment of projects. Reports indicate that public participation was conducted satisfactory during the development of Dube Community Park.

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2.2.1.33 Environmental days and week activities

Strengths:
- It was reported that schools are involved in waste recycling. The buy-back centre will thereafter be responsible for regular collection of waste for recycling purposes.

Challenges:
- However, there was no waste recycling project active at Sgodiphola Primary School during the date of the visit.

Overall observations
- None

Recommendations:
- Recycling initiatives must be encouraged at least to all primary schools.

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2.2.1.34 Leadership and Institutional Arrangements

Strengths:
- The Metro has a long term strategic plan since 1996. The municipal emphasis is resilience and sustainability. Currently there is Growth and Development Strategy 2040 which is expected to shape the future of the development.

Challenges:
- None

Overall observations
- No political leadership was noted during the assessment.

Recommendations:
- None

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2.2.1.35 Mechanisms to raise environmental awareness:

Strengths:
- The Metro has developed a lot of educational campaigns which were printed in T-shirts, pamphlets and burners. They also have community campaigns, media talks and door to door outreach programmes. The municipal fleet is well branded with educational environmental messages. There is Trash to Treasure programme operational in the area. Eco rangers are recruited from the community and provided with training.

Challenges:
- None

Overall observations/recommendations:
- Educational material was well developed. The Metro must ensure that the material covers different languages.

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2.2.1.36 Bi-laws in place against environmental perpetrators

Strengths:
- The bi-laws have been well developed, particularly to deal with traffic violations.

Challenges:
- Bi-laws are not well developed to deal with vacant stands in Townships. There was poor maintenance noted and illegal dumping as a result.

Overall observations
- The waste management bylaw was last reviewed in 2013

Recommendations:
- None

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2.2.1.37 Presentations

Strengths:
- The presentations were excellent. They were well planned and prepared. The content was detailed and informative.

Challenges:
- None

Overall observations/recommendations:
- The presentation session was satisfactory because all sections presented.

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2.2.1.38 General observations of the Municipality

Waste Management

Overall Strengths:
The separation at source for the City is strong to see them attain the 25% diversion National Waste Management Strategy (NWMS) target by 2016 and also takes them closer to eliminating joblessness. The main focus in the formalisation of recycling by the City has been the people and co-operations that were doing this work before government intervention and this has paid dividends for all involved.

Overall Challenges:
The City of Johannesburg landfills have 9.7 more years to operate before they run out of airspace.

Overall Observations:
The City has a long problem of mine dumps which are littered all over the City and have been in existence since the beginning of the gold rush. These dumps are the main source of dust for the city and have very high concentration of metals and irons that can be harmful to health, water and environment.

The City is no longer mining gold as all the mine have reached ground water level and all the remaining gold is under ground water. It is only Central Rand Gold that is known to still mine gold in the City and is operating under very low margins. Due to this hurdle the industry has turned to mine dump reprocessing to obtain gold. Most of the dumps are known to belong to Durban Roodeport Deep (DRD). This company is reprocessing the dumps and only has two sites where it can dump waste from its reprocessing located near Carnival City and Mogale City. It is estimated that this process will eliminate 15 mine dumps before the end of 2014. The panel noted the fact that the City lost a court case to evict waste pickers at the landfill sites even though the landfill sites permits prohibit the practice. It is also said that the case was lost on the argument around the right to dignity rather than some legal technicalities.
2.2.2. Nelson Mandela Bay Metropolitan

Waste Management

2.2.2.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Metro has a first generation Integrated Waste Management Plan developed in 2005 and currently under review. It is in the public participation stage of the review.

Challenges:
- There is no evidence of implementation of the Integrated Waste Management Plan (IWMP) when the judging panel was doing site visits. It seems that the review came without the Metro ever committing to implementing their 2005 targets.

Overall observations/recommendations:
- The IWMP review came nine years later, than it was required by the legislation and it is still in the public participation stage of the review since January 2014.

2.2.2.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- The Metro has the capacity to conduct educational campaigns relating to waste minimisation through the Community Liaising Officers (CLOs) and the edu-bus. The Metro also has district forums that seat every quarter.

Challenges:
- The Metro has a lot of littering which points to poor waste management. The education of the communities is weak due to poor staff numbers in the education component.

Overall observations/recommendations:
- The amount of littering gives one an idea into how much the Metro could reduce their waste by concentrating on waste prevention and minimisation.

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2.2.2.3 What does the municipality do to re-use & recycle waste

Strengths:
- The Metro has a number of drop-off facilities which they also use for recycling e.g. Blue Horizon Bay and Strandfontein. The Metro has established a waste exchange website which allows waste generators and interested people to swap waste and prevent/minimise disposal. The two bag system for recycling at source is in operation at Blue Horizon Bay. The use of complimentary discs for segregation at source is a good idea to increase participation by other households. The Metro has contracted a private company to recycle waste at the Arlington landfill site.

Challenges:
- Although promoting recycling in their jurisdiction the Metro is not leading by example with respect to management of the waste in their buildings. The two bag system is only operated in the Blue Horizon Bay which is a very small settlement. The burning of waste seems to be a problem as supported by the number of burnt skips observed in the Metro.

Overall observations:
- It is very disappointing that the Metro does not take advantage of the existence of co-operatives, which by the way perform door to door waste collection, to promote and expand recycling to townships and informal settlements.

Recommendations:
- The separation at source of waste must be expanded to other areas to reduce the volumes disposed to landfill sites.
- Metro must endeavour to reduce / prevent burning of waste which leads to damaging of waste collection skips.

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2.2.2.4 Waste Disposal Facilities

Landfill sites
- The Metro has three landfill sites in its jurisdiction, two of which Arlington (GLB-) and Koedoeskloof (H:h) are run by the Metro. The third LFS, Aloes (H:H) is run by Enviroserv. The judging team only visited Arlington and Koedoeskloof.
Strengths:
- The Arlington landfill site seemed to have enough heavy machinery (bulldozer, excavator, front end loader and compactor) to run the landfill adequately.
- Both Municipal sites have a functioning weighbridge, are fenced, have security and also marshals to help on the working face.
- The Arlington landfill site is not accepting animal waste and this is commended as most landfills accept this waste even though they are not properly designed to.
- The waste pickers at Arlington site all had reflective vest which makes them visible to drivers.
- Both sites did not have a bad odour.

Challenges:
- Dogs were observed on both sites.
- The Arlington landfill site did not seem to be a plan to manage waste tyres in both landfills but this problem was more pronounced at the Arlington landfill site.
- Garden refuse at Arlington is also dumped and covered with the household waste.
- The Arlington site did not have a dust-suppression plan and the site was full of dust as a result.
- The covering of waste on the site needs to be improved as this will reduce wind scattered waste that was prevalent on site.
- The recycler at Arlington are still using burning as a method of separation for obtaining metals from e-waste like PCs and printers.
- Access to the Arlington site is not adequately controlled. The people from Walmer Township gain access to the site from the recycling contractor’s side which is behind the Landfill site manned gate.
- Although both sites were assessed not to produce leachate, they both have standing water on site which would increase the chances the requirement for leachate management.
- The Koedoeskloof landfill still has makeshift residential structures on site made by the waste pickers.
- The Koedoeskloof has an oil dam that is about 20m x 5m.
- Lack of signage.

Overall observations:
- It is encouraging to see that the Arlington site has now been adequately fenced since the last Greenest Municipality Competition evaluation.
- Building rubble is being received free of charge by the Arlignton landfill site which will encourage proper disposal and reduce the illegal dumping of this material which seems to be prevalent.
- It was observed that the Arlington landfill site did not have a fire problem.

Recommendations:
- The Metro needs to invest on a wood chipper to process green waste for the production of compost.
- The landfill site needs to use the building rubble for road maintenance so as to reduce dust formation. They should on the other hand invest on a water tank for maximum dust suppression.
- It is important for the Metro to train their contracted recycler in Arlington (Mr. Themba) on the best practice with respect to recycling of e-waste and other trick materials.
- It is strongly recommended that Koedoeskloof contact Oilkol for recycling of the oil in the oil dam. It is also recommended that the oil dam be decommissioned after it has been emptied.
- It is important that the Metro contact Recycling Economic Development Initiative of South Africa (REDSIA) to find out possible avenues for the recycling of tyres.
- It is important for the Metro to install signage and enforce speed limits on the landfill sites.
2.2.2.5 Storm water management

Leachate management

Monitoring activities

Strengths:
- Both Municipal managed landfill sites are B- (do not produce leachate) and this eliminates the burden of leachate management.

Challenges:
- Lack of separation infrastructure for clean storm water and landfill space (contaminated) storm water

Overall observations:
- It is noted that both Landfill sites do not have groundwater monitoring as there are B-

Recommendations:
- The Metro needs to separate clean from contaminated storm water.

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2.2.2.6 Transfer Stations

The judges visited three transfer stations namely: KwaMagxaki, Blue Horizon Bay, and Strandfontein

**Strengths:**
- The transfer stations visited were all well fenced and access was well controlled with 24hr security and locking after working hours.
- The transfer stations are well designed for easy access and offloading by vehicles.
- The Metro claims to have 17 transfer stations and the judging team thought this is a good number that represents potential for waste collection and recycling.

**Challenges:**
- The signage at transfer stations was non-existent or not visible.
- The recycling on the transfer stations is not satisfactory.
- Litter around the transfer station was noticed.

**Overall observations:**

**Recommendations:**
- Upscale recycling at transfer stations.
- A transfer station at Missionvale and Kleinskool must be built to help the MK co-operative with recycling space and increase their revenue.
- Given the strategy used by the Metro to employ co-operatives for waste collection in some areas it is recommended that they build transfer stations to provide the co-ops with recycling spaces.

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2.2.2.7 Drop-off areas

**Strengths:**
- The drop-off at Njoli is located in a busy place, next to the main road and is fenced with palisade.

**Challenges:**
- Although fenced this drop-off does not have a gate and domestic animals including goats enter and leave as they wish.
- The space around the drop-off was littered with waste even though there was no gate.

**Overall observations:**
- None

**Recommendations:**
- It is recommended that the Metro educates the community on how to use the drop-off centres so that waste is dropped inside the fenced area and not outside.
2.2.2.8 Medical waste management:

**Strengths:**
- Medical waste is privately managed.

**Challenges:**
- It has been mentioned by waste pickers that once in a while they see medical waste on the landfill sites.

**Overall observations:**
- The Metro has a H:G landfill site operated by Enviroserv in their jurisdiction (Aloes LFS). This landfill site is known to accept waste from outside generators but surprisingly the Metro does not utilise this facility for disposing their medical waste. In fact the Metro mentioned that they take their medical waste to East London.

**Recommendations:**
- It is recommended that the Metro investigate this option of using the Aloes landfill for their highly hazardous waste.

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2.2.2.9 General Cleanliness in Town

Strengths:
- The CBD is clean.

Challenges:
- It was noticed that there was a lack of refuse bags on the street bins.

Overall observations:
- Waste seems to be well managed in the Central Business District and there is a lot of waste receptacles.
- Kings beach is not properly cleaned.

Recommendations:

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2.2.2.10 General cleanliness of residential areas

Strengths:
- The suburbs were clean.
- In townships the Metro uses co-operatives to clean their areas which help with job creation, while giving a good and cheap service.

Challenges:
- The townships were very dirty.
- Waste collection in townships is once in two weeks which is not in compliance with waste collection standards for domestic waste collection in urban areas.

Overall observations:
- While the Metro provides a good service for suburbs it totally neglects the township from both a waste collection point and environmental education.
- The illegal dumping at Rawana Street in KwaZakhele is the worst ever seen by the judging team. It is so bad that cars can no longer use the street for driving.
- The open spaces in townships especially littered with waste and give a very bad impression of the places.
- In Walmer Township burning of waste was observed along the road to Arlington LFS.

Recommendations:
- It is recommended that the Metro improve their waste collection in townships as a matter of urgency.
2.2.2.11 General cleanliness of industrial areas

Strengths:
- General cleanliness was observed.
- 

Challenges:
- Dumping of building rubble in certain areas.

Overall observations
- No issues of concern.

Recommendations:
- None
- 

2.2.2.12 Education and awareness programmes about waste

Strengths:
- The Metro has an Edu-bus for educating the communities especially schools on waste management.
- “Hands on waste” booklet and brochures as well as flyers are distributed to the stakeholders.
- The Metro uses community radio stations to reach communities.
- There is a Language Policy which caters for the broader medium of communication for communities (Xhosa, English and Afrikaans).
- The billboards have been developed by the special team to educate the community about environmental related issues.

Challenges:
- The Metro has a shortage environmental awareness staff (CLOs).
- The Edu-bus has no permanent driver.
- The evaluating team does not support the Mayor’s face on the educational material.
- The use of radio stations seems to be costly for the Metro.

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Overall observations:
- None

Recommendations:
- The Metro must train the Expanded Public Works Programme (EPWP) staff members to be ambassador.

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2.2.13 Energy Efficiency and Conservation

Strengths:
- None

Challenges:
- None

Overall observations
- The Metro does not have green building standards for their jurisdiction but they rely on the nationwide SANS 204 standards for energy reduction.

Recommendations:
- With the massive building of low cost housing in the Metro, the Metro should take advantage to implement green designs to reduce water and energy demand in their jurisdiction.

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2.2.2.14 What is the Municipality doing to reduce their carbon footprint

Strengths:
- A very high number of coloured and black township houses had solar water heaters.
- The Environmental Management boardroom in the Govan Mbeki Street municipal building has motion sensors installed.
- The Metro has two wind farms and the judging panel visited the one in Blue Horizon Bay.
- Retrofitting of street lights to LED energy savers.
- Retrofitting of lights in municipal building.
- Implementation of the embedded generation contracts that are exempted from licences by NERSA.
- Cycling and pedestrian ways developed along the beaches.
- The Metro has done a wind energy evaluation for the metro and therefore know what the potential for the metro is.

Challenges:
- Illegal electricity connections in the informal settlements.
- Some of the street lights were on during the day.
- There are no plans to deal with illegal connections.

Overall observations
- The Metro seems to be having good plans and knowledge of what they should do for energy management but implementation has not started yet.

Recommendations:
- None

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2.2.2.15 Energy Audits

Strengths:
- The Metro commissioned Genesis to conduct a study to determine costs related to green tariffs that the Metro wants to introduce.
- Fort Hare was also contracted to verify energy saving to made by their planned interventions to reduce carbon footprint
- The Metro has a number of Department of Energy sponsored projects with all their saving implication documented
- The Metro has a 92% recovery for the electricity they sell.

Challenges:
- None
Overall observations:
- The Metro generally seems to have a very good understanding of their energy consumption.

Recommendations:
- None

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2.2.2.16 Awareness

Strengths:
- None

Challenges:
- None

Overall observations
- There seem to be no conscious effort to educate the staff and the community on energy saving options available.

Recommendations:
- Awareness on energy efficiency needs to be intensified generally.

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2.2.17 Strategy

Strengths:
- Retrofitting of energy savers in buildings, street lights and high masts.
- Installation of occupancy sensors.

Challenges:
- The remote switching of street lights needs to be closely monitored to ensure they are not burning during the day.

Overall observations
- While certain studies were conducted to determine energy savings and certain projects implemented there seems to be no well-planned and consolidated strategy to sell the plans and projects to the staff and community at large.

Recommendations:
- None

2.2.18 How does the municipality deal with the management of mercury

Strengths:
- No strengths

Challenges:
- Lack of training to service providers about the dangers of mercury in case of breakages/accidents.
- The Metro indicated during the presentations that they do have a “bulb eater” but during inspections the contractor indicated that they do not have such an apparatus.

Overall observations/recommendations:
- The metro need to invest in or develop bulb eaters and place it at strategic points.
- Adequate capacity building need to done with the contractors and communities fitting the Compact Fluorescent Lamp (CFL) lights especially in the townships.
- Awareness of the dangers of mercury need to be enhanced.

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Frequency: No  Yes
2.2.19 Water Management and Conservation

Strengths:
- The Metro has 100% coverage of fresh water supply in urban areas. Some rural areas are also serviced with fresh water supply.

Challenges:
- 2/7 blue drops

Overall observations/recommendations:
- Stand pipes were observed at Chris Hani informal settlement providing fresh water supply.

No Yes

2.2.20 What is the municipality’s water status? Green Drop status?

Strengths:
- The Fishwater Flats waste water treatment plant is operated within its capacity. However the plant is currently under upgrade. The disposal of screens from the plant has been approved by the National Department of Environmental Affairs.

Challenges:
- One out of seven green drops. The Fishwater Flats Waste Water Treatment Plant does not have a back-up system during power failure.

Overall observations
- It was observed that the monitoring of e.coli is within limits before final discharge.

Recommendations:
- None

No Yes
2.2.2.21 Water management in Municipal buildings

**Strengths:**
- Upgraded six water provision networks
- Water service development plan.
- Water services by-law.
- Re-using of black water in parks.
- They have iThontsi mascot for Reduction of water usage due to proper planning for droughts.
- Water master Plan.
- Sanitation Master Plan.
- Water management in the Metro is very good.
- Recycling of wastewater from Fishwater Flats for industrial use.

**Challenges:**
- Low recovery on provided water.

**Overall observations**
- The Metro is doing very good in water management.
- The Metro has a few planned projects like desalination plant

**Recommendations:**
- None

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2.2.2.22 Water management in parks and gardens

**Strengths:**
- The Metro uses water wise plants for the parks.

**Challenges:**
- The Metro uses water tankers to provide water to some of their parks.
- In Kings Beach the plants are watered using spring water.

**Overall observations**
- The vegetation in parks is mostly dry

**Recommendations:**
- None
2.2.2.23 Does the Municipality do water audits? Evidence is needed.

Strengths:
- Effective water audits in place.
- 28% physical loss of water.
- Nonrevenue water loss is 55%.
- 100% coverage of water supply in urban areas.
- 31% of supply coverage in the rest of the Metro.

Challenges:
- None

Overall observations
- None

Recommendations:
- None

2.2.2.24 Sewer management

Strengths:
- Sewerage network seems to be in in good condition.

Challenges:
- The Metro still have bucket system in some informal settlements (e.g. New Brighton informal settlement).

Overall observations
- The existing sewerage network is ok but the bucket system must be eradicated.

Recommendations:
- None
2.2.25 Re-use of water – use of Grey Water and Black Water.

Strengths:
- Rain water harvesting at Triomf High School in Cleary Park.
- Re-use of Back Water from Fishwater Flats Waste Water Treatment Plant by various industries.

Challenges:
- No policy on Grey and Black Water utilisation.

Overall observations/recommendations:
- None

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2.2.26 Water awareness actions by the Municipality

Strengths:
- Drought awareness campaigns through iThontsi.
- If ended up saving about 40ML/year,
- Strong link between energy saving and water demand education to communities.

Challenges:
- None

Overall observations:
- Metro need to be commended on their water management.

Recommendations:
- Introduction of Grey / Black Water management could have a big impact on water saving

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2.2.2.27 Water Conservation Strategy / Plan

Strengths:
- The Metro has a water master plan in place. It is acknowledged that the Metro has plans for deep ground water extraction project in a pipeline. The deep ground water extraction will supplement the existing fresh water supply network.

Challenges:
- None

Overall observations/recommendations:
- Water features were observed along the beach.

2.2.2.28 Landscaping, tree planting and beautification

Strengths:
- It was good to see a park as big and well taken care of as the Mandela Park in Motherwell.
- The Springfield nursery is good support for the Parks Department. The site visit to the nursery showed it was big and very active.
- The Metro has the Go Green advocacy programme to do greening education.

Challenges:
- The combination of drought in the Metro and lack of watering infrastructure in parks results in their parks looking less green.
- It seems that the parks section has minimal staff and this is confirmed by the Metro’s admission to outsourcing work to private companies where parks need to be developed and maintained.
- Livestock is posing a challenge because it feeds on the plants.
- The irrigation system was vandalised by the communities for drinking water.

Overall observations
- In spite of the Metro mentioning that they focus on townships for park building, evidence to support this claim was not very obvious.

Recommendations:
- It is however recommended that the Metro build waterborne toilets at the Mandela Park in Motherwell.

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2.2.2.29 Does the Municipality have a policy on greening actions

Strengths:
- Draft Greening Policy for Nelson Mandela Bay Municipality.
- They have Management of Open Spaces Strategy (MOSS).
- The Metro uses water wise plants and this could be observed in many places.

Challenges:
- There is no budget for greening Reconstruction Development Programme houses and as a result the Metro uses the budget from the rates to do this.

Overall observations
- The greening policy was in draft even during the 2011 Greenest Municipality Competition evaluation. This suggests that the Metro does not see this plan as a priority.

Recommendations:
- It is important that the Metro finalises the development of the greening policy to ensure improved and co-ordinated tree planting and plant management in their parks and open spaces.

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2.2.2.30 Tree planting in townships

Strengths:
- Planting was observed mainly around schools. They were in many cases protected, from being eaten by livestock, by wire caged.

Challenges:
- Domestic animals such as cattle and goats could be observed even in the Central Business District areas of Motherwell and other areas.
- There were no plants noticed in RDP houses.

Overall observations
- None

Recommendations:
- Greening programmes must be implemented in the RDP developments. In fact fruits in other areas in the country proved to be successful due to dual function and as a result communities taking better care of them.
2.31 Invader plant control

Strengths:
- None

Challenges:
- One of the rivers in Windsor Park on the way to Koedoeskloof was totally covered by the alien invasive green floating plant (water hyacinth).

Overall observations
- The Metro did not seem to have a programme that targets alien invasive plants.

Recommendations:
- Alien invasive plant project needs to be identified with other stakeholders like Working for Water and Department of Environmental Affairs. These two stakeholders normally finance their own projects and the Metro can feed their wishes into the programmes.

2.2.2.32 Public Participation and Community Empowerment

Strengths:
- Metro has environmental forums with a variety of local stakeholders e.g. Sappi, PnP, Vodacom, NPA etc.
- Metro has community based communication office which deals with community issues including those related to the environment.
- Triomf in Gelvandale has been an Eco-school for 20 years. The schools have environmental education classes as supplements to the normal school curriculum.
- The Metro has Environmental Awareness staff (CLOs). Although a few (three) their commitment observed during the site visits by the judging panel.
- The Metro observes its own environmental events calendar that they issue quarterly.
- The Metro also does Go Green Road Shows.
- The farmer conservancies like Sunday River Valley farmer conservancies that even pay for ranger to fight stock theft.
Challenges:
- Although the Triomf School was an Eco-school there was not much happening; in the way of recycling, composting, gardening, water conservation, etc. in the school itself. This is the case even though the school has received platinum status.

Overall observations
- It seems the Eco-school programme by the Wildlife and Environment Society of South Africa concentrates more on curriculum activity and is not strong on encouraging practical application by the schools involved.

Recommendations:
- It is recommended that practical environmental conservation projects be implemented at the Triomf School to give a good practical demonstration of how big an achievement the platinum status in the Eco-schools programme is.

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2.2.2.33 Environmental days and week activities

Strengths:
- The Metro has compiled a full environmental calendar for the whole of 2014/2015.
- Community radio station are used to announce and educate communities.
- There are partnerships with private businesses that the Metro establishes for running the environmental days.
- Environmental education is mainly focused on township school and given to previously disadvantaged schools on request.

Challenges:
- The nature of soil structure/quality in some of the areas makes it difficult for people and schools to practice gardening.

Overall observations
- None

Recommendations:
- None

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2.2.2.34 Leadership and Institutional Arrangements

Strengths:
- The Integrated Development Plan is done first, not the budget. The Integrated Development Plan is informed by sector plans such as the Integrated Waste Management Plan.
- Monitoring and evaluation is done in terms of SDBIP to ensure that every item is accounted for. The SDBIP does not change.
- The current municipal manager has taken initiative to seek assistance from the National Treasury to ensure that there is improvement.

Challenges:
- There were vacant posts for a very long period. The executive director was in an acting position for at least 4 years.
- The environmental management section is not clearly visible. The section is incorporated into Public Health.
- The Metro has unqualified audits for the past two years.

Overall observations/recommendations:
- There seems to be instability at top management. The municipal manager personnel change quiet often.

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2.2.2.35 Mechanisms to raise environmental awareness:

Strengths:
- The Metro has an Edu-bus for educating the communities especially schools on waste management.
- “Hands on waste” booklet and brochures as well as flyers are distributed to the stakeholders.
- The Metro uses community radio stations to reach communities.
- There is a Language Policy which caters for the broader medium of communication for communities (Xhosa, English and Afrikaans)
- The billboards have been developed by the special team to educate the community about environment related issues.
Challenges:
- The Metro has a shortage of Environmental Awareness staff (CLOs).
- The Edu-bus doesn’t have a permanent driver.
- The evaluating team does not support the Mayor’s face on the educational material.
- The use of radio stations seems to be costly for the Metro.

Overall observations:
- None

Recommendations:
- The Metro must train the Expanded Public Works Programme staff members to be ambassadors.

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2.2.2.36 Bi-laws in place against environmental perpetrators

Strengths:
- The Metro has recently appointed the Metro Police Chief to put together the directorate;
- The Metro has six bi-laws in place;
- Air Pollution Control;
- Public Amenities;
- Cemeteries and Crematoria;
- Disaster Management;
- Noise Pollution;
- Waste Management

Challenges:
- Lack of enforcement of by-laws. No Metro Police at all.
- The metro do not have an enforcement unit to enforce their bi-laws, the traffic police are reluctant to assist in enforcing the bi-laws. The City is contemplating using a Metro Court for petty environmental contraventions instead of the magistrate courts.
Overall observations:
- There seems to be no developments on challenges that had been identified three year ago.

Recommendations:
- The metro needs also to empower some of the officials in waste management and environmental units by enrolling them for the Environmental Management Inspectorates (EMI) course which will empower the officials to apprehend members of the community breaking the bi-laws and National Environmental Management Act (NEMA).

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2.2.2.37 Presentations

Strengths:
- All components were represented in the boardroom and gave their section presentations
- Presentations were done by relevant section heads who were able to answer questions
- The Manager for the Environmental Section was also present and upfront with the judging panel

Challenges:
- There was no presence from the local stakeholder like Pick and Pay, NPA, etc. to show inclusivity.
- There were no councillors present during the presentation which puts political support of the programs under question.

Overall observations
- An apology was made for one Councillor that was invited to attend the presentations

Recommendations:
- It is advisable to invite local stakeholder and politicians to Greenest Municipality Competition presentation to show support and provide them with an opportunity to learn more about what the Metro does.

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2.2.38 General observations of the Municipality

Areas of Strength:

Waste Management: The fact that the Metro has a planning section within the waste management section can be an advantage in terms of timeous and proper betterment of service delivery. The use of cooperatives to deliver services into townships helps to create job opportunities.

Areas of Challenge:
Litter was common in most areas. There was paper scattering in public areas that was not addressed.

Recommended Action:
Cooperatives must be used extensively for service delivery in townships. The Metro must ensure that waste management in the area ultimately focuses on recycling.
2.2.3. Buffalo City Municipality

Waste Management

2.2.3.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The first generation Integrated Waste Management Plan (IWMP) was available. The Metro has a second generation IWMP dated 2012 is still in a draft form.

Challenges:
- The draft IWMP is 85% complete and is therefore not approved by council. This process is behind so much that the incomplete IWMP is already due for review according to the time frames.

Overall observations/recommendations:
- The Metro must appoint a waste management officer who must implement the plan.

No  Yes

2.2.3.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- There is a recycling project at Duncan informal settlement. The cooperative was established at Duncan Village as an initiative towards recycling.

Challenges:
- Despite few initiatives towards recycling, the recycling is not adequate in the area. The Metro has not provided enough support to ensure that recycling is sustainable in the area. The Metro does not have data on the waste generation and disposal figures. However judging from the type of waste evident at the landfill sites there is great potential for waste diversion in the Metro.

Overall observations:
- The overall observation is that waste minimisation does not exist at all. This is an area that still needs a great improvement.

Recommendations:
- None

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2.2.3.3 What does the municipality do to re-use & recycle waste

Strengths:
- Waste bins have been provided to schools as an attempt to expedite the culture of recycling. The Buyisa e-Bag project is also under renovation. This programme should be operating in the near future.
- Reclamation is operating a private buy-back centre project in town. There is a working relationship with the Metro to supply reclamation with waste recyclables.

Challenges:
- It is a great concern that there is no waste separation from source in houses. The households have been deprived an opportunity to participate in recycling. It seems waste disposal is not considered as last resort and that the Metro still believes mainly on disposal, at least in practice.
- There is no support or well developed buy-back centres in the townships which will also help to create some informal job opportunities in the waste sector. Recycling in Mdantsane is extremely little. The only recycling company operating in Mdantsane is Mdantsane Bottle Exchange in Highway. However the company does not seem to be collecting large volumes of waste. They collect paper, plastic, spirit bottles and cans. All of these are sold to Collect All Paper, Collect All Plastic and Distell respectively.

Overall observations/recommendations:
- It was observed that some recycling bins were provided in offices but no one is managing the program properly. There were three bin separation at Duncan Eco-Park.
- The panel noted that the Metro is planning a three bag separation at source programme for selected residential areas composing of both town and township suburbs.
- It is recommended that a bottle exchange buy-back centre project at Mdantsane is provided with some support to ensure sustainability. Sustainability of buy-back centres will create value on waste material. With value on waste material there will be less littering in the long run.

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2.2.3 3.4 Waste Disposal Facilities

Landfill sites

Strengths:

- The Metro has two licensed Landfill Sites (LFS) and 12 popular dumping sites that are used by communities. The two licensed LFS are the Roundhill Regional LFS in Berlin and the King Williams Town (KWT) landfill sites. Both sites are operated by the Metro. The Roundhill landfill site is well developed. The infrastructure is good. The landfill is well fenced according to the permit requirements. The signages were satisfactory. The weighbridge was functioning properly. The site has professional engineers on site.

Challenges:

- As the Metro has no robust recycling in the area, there is still a large amount of recyclable material being disposed into the landfill sites. The overall waste management operation is out-dated. It does not comply with the waste management hierarchy where waste disposal must be considered as last resort. The KWT landfill site is not fenced. It just only has a gate with brick and mortar walls that span a few meters on either side. No fence or remainder thereof is visible all around the visible boundary of the site. Both sites have no compacting machinery. The dominating heavy machinery active at Roundhill site were bulldozers and front end loaders. All the machinery on site is hired from private companies and breakdowns are a persistent problem.

- There was no covering evident on both Landfill site. The waste management of Buffalo City Metropolitan Municipality also confirmed this in their presentation. The Roundhill Landfill site has a problem with using a property where they are not allowed to take cover material because of mining rights on the property by a private individual. This resulted in the individual demanding that Buffalo City Metropolitan Municipality does not touch the soil unless they buy it (cover material) from him/her.

Overall observations

- Serious fire problem was observed at Roundhill landfill site. Cover material was not adequate to deal with the incoming waste amount.

- There is no weighing at the KWT site. It is also muddy due to lack of proper paving. It is only the Roundhill site that has a weighbridge. The weighbridge is working and is being used by the Landfill site. However KWT Landfill site does not have a bridge and did not seem to have any recording of volumes taking place.

- Roundhill Landfill site has many waste reclaimers picking on the site. They mainly collect metals for selling to Re-Clamation Group. A conversation with one of the pickers revealed that they make as much as R1000 a week from the materials they get at the landfill site. It must be said that the pickers at Roundhill are illegal and not formalised by the Metro. In fact the manager of both landfills indicated that they use SAPS to chase them away from the site from time to time. This unfortunately robs the Metro of recycling and the pickers of a source of income.

Recommendations:

- It is recommended that KWT Landfill site uses the existing waste estimation methods to estimate the volumes of waste they handle as a matter of agency.

- It is also important that all waste pickers on site be organised to ensure better working conditions and also promote safe recycling.

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2.3 3.5 Storm water management

Leachate management

Monitoring activities

Strengths:
- The leachate management system at Roundhill is well developed. There is no leachate contamination around the site. The pump system was functioning properly. The infrastructure is well fenced against vandalism.

Challenges:
- It was noted that the leachate dam was not lined whilst there is no treatment of the leachate.
- There was no evidence of storm water separation at Roundhill and as a result water from the waste disposal foot print runs off to mix with rain water.

Overall observations
- The team observed no signs of leachate overflow around the dam. The location of the leachate dam is well positioned because there is no river stream in close proximity.

Recommendations:
- It is recommended that water from disposal foot print and clean storm water be separated to prevent water pollution.

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2.3.3.6 Transfer Stations

Strengths:
- The Metro has made an attempt to establish a lot of transfer stations at Duncan informal settlement. Waste is temporarily stored centrally so that it could be collected less costly from the area, instead of household collection.
- There is no waste management license required for operating these transfer stations hence they are below thresholds.

Challenges:
- These transfer stations are still a challenge since there seems to be no person managing each facility. There was no control at these sites.
### Overall observations

- None

### Recommendations:

- The Metro must establish and manage properly their waste transfer stations. These facilities should be the key infrastructure for waste collection in all areas. Cooperatives must be established in each township to assist with waste management in their areas. The main focus should be waste recycling instead of disposal.

### 2.3.3.7 Drop-off areas

**Strengths:**
- Waste recyclable drop off centre is commendable at KWT. The facility was established in the residential area for receiving glass, cans, plastic, cardboard and paper.

**Challenges:**
- The drop off centre sites was not paved. The grass was not cut. There was no control of the site.
- The drop-off facilities were observed to be at the Duncan Village. There were palisade structures with no gates. They also have no concrete floors in and around the structures. There was no active recycling taking place at the drop-off structures.

**Overall observations/recommendations:**
- The Metro must establish and manage properly their drop off stations. These facilities should be the key infrastructure for waste separation.

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2.3 3.8 Medical waste management

Strengths:
- Private service providers are responsible for medical waste. It was reported that this waste stream is treated before disposal.

Challenges:
- The fact that access to these landfill sites is still unmanageable, it is worrying that the Metro reported seeing medical waste on site. There were a large number of uncontrollable waste reclaimers on site. These reclaimers could be at risk associated with medical waste material infections.

Overall observations
- Proper control must be established to manage waste reclaimers on site.

Recommendations:
- None

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2.3 3.9 General Cleanliness in Town

Strengths:
- The towns visited were the King Williams Town; East London and Berlin. Waste management still needs improvement.

Challenges:
- Waste management was still a challenge in most cases mainly the informal areas. There is a shortage of staff to work on the street. There were inadequate bins at the taxi ranks. Illegal dumps were common in informal areas and street motor mechanics were not properly controlled.

Overall observations/recommendations:
- Old building structures, especially unnecessary buildings which were reported to also nest some criminals, were making the area look untidy.
- The Metro must provide adequate bins in public areas, Taxi Ranks and along the streets.

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2.3 3.10 General cleanliness of residential areas

Strengths:
- Buffalo City Metropolitan Municipality has a number of townships which include Mdantsane; Zwelitsha; Duncan Village; Pafferville; Litha; Ndevana; etc. Zwelitsha Township is probably the 3rd biggest township in the Metro. The main roads had islands planted with trees. There were two illegal dumping cases observed in this township but both were green waste in black refuse bags.
- The suburbs on the other hand looked neat with a well cut grass verges. It is commendable that the bush trucks are used for collecting domestic waste at Mdansane Township. These waste materials must be recycled at a large scale. It was reported that illegal dumping is cleared in many cases. Adopt-a-spot approach is also used in some cases (evident in Duncan Village) to turn the sites into gardens and play grounds by both the Metro and private citizens.

Challenges:
- The Metro reported truck breakdowns as a challenge. The open spaces were not managed well in townships. As a result, illegal dumping was opportunistic. Un-serviced areas were still burning their domestic waste.

Overall observations
- None

Recommendations:
- Illegal dump sites should be developed as proper drop off or transfer stations.
- Cooperatives must manage these sites and also practise waste recycling to reduce the amount of waste to be collected for disposal.

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2.3 3.11 General cleanliness of industrial areas

Strengths:
- **Westbank Area:** The main road (to the airport) and the Industrial Development Zone (IDZ) were observed to be clean. The landscaping and beautification efforts by the Metro on the main road were evident. Water wise plants (Flue tree or uMkhanyakude) were planted instead of water thirsty plants.
- Fort Jackson was clean. Only one or two illegal dumping spots were identified in the area. The one was from a factory that produces nitric acid.
- The road verges were well maintained around the industrial areas.

Challenges:
- **Bus Depot/Coca Cola:** The Depot industrial area (Heaven Hills) was slightly dirty. The main reason was lack of proper packaging of materials by one of the companies next to Coca Cola that looked like it was collection plastic materials.
Overall observations
- The industrial areas were generally well managed. Bulk street skips were also noted at Mdantsane industrial area for metal waste recycling.

Recommendations:
- None

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2.3.3.12 Education and awareness programmes about waste

Strengths:
- The Metro has introduced branding into their trucks with educational material. The green bus was also operational. The educational material has been made in different languages.

Challenges:
- Proper Waste management was still not a priority in poor area. Shortage of machinery becomes costly if this has to be hired every time required, e.g. TLB for cleaning illegal dumps.

Overall observations
- The environmental awareness is still very poor in the area. There was no indication during the site visits that the community has a sense of awareness about cleanliness.

Recommendations:
- It is recommended that the Metro intensifies their education and awareness programs

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2.3.3.13 Energy Efficiency and Conservation

**Strengths:**
- None were observed.

**Challenges:**
- There was no evidence that energy efficiency devices are provided for free around the community. There were no solar systems observed from the housing developments.

**Overall observations**
- None

**Recommendations:**
- The Metro must encourage energy efficiency installations during projects designs. Approval of buildings must take energy efficiency into consideration.

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2.3.3.14 What is the Municipality doing to reduce their carbon footprint

**Strengths:**
- The Metro anticipates gas extraction project from the landfill site. This in a long run could reduce the demand on the coal generated electricity.

**Challenges:**
- Street lights observed were not switched off during the day. This was considered an unnecessary consumption of electricity. Clearly the Metro has no strategy to control this challenge.

**Overall observations**
- It was observed that most lights are not yet converted to Light Emitting Diode (LED) technology.

**Recommendations:**
- It is recommended that the Metro also promote LED conversion around the community.

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2.3.3.15 Energy Audits

Strengths:
- None was mentioned during the assessment.

Challenges:
- The Metro is still facing a large number of uncontrollable illegal connections particularly at Duncan informal settlement area.

Overall observations
- It was clear that the Metro has no strategy to deal with illegal connections in the area. This is posing a serious hazard in the area.

Recommendations:
- None

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2.3.3.16 Awareness

Strengths:
- Education on energy efficiency and usage still needs to be improved around the community.

Challenges:
- Illegal connections were a clear indication of lack of education in the area.

Overall observations
- None

Recommendations:
- The Metro must embark on a drive to promote energy efficiency in the area. It is recommended that at least each RDP housing development must have solar geyser installations.

2.3.3.17 Strategy

Strengths:
- The Metro has commenced with some few solar panel installation at Eco-Park for lighting the park.
Challenges:
- It was not clear if the Metro has any dedicated energy personnel.

Overall observations:
- The overall observation is that this area is still far from energy efficiency practice. It is recommended that the Metro must develop a plan as a starting point.

Recommendations
- LED lights must be promoted through phased installations into street lights, public buildings, hospitals and traffic lights.

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2.3.3.18 How does the municipality deal with the management of mercury

Strengths:
- None was mentioned during the assessment.

Challenges:
- The Metro has not invested much on this aspect. There was no evidence to suggest that there is a strategy to deal with mercury proper disposal.

Overall observations
- None

Recommendations:
- It is recommended that the Metro establishes a mercury lamp management system to prevent possible mercury poising of employees

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2.3.3.19 Water Management and Conservation

Strengths:
- The performance of the Metro in water supply and wastewater treatment is impressive. It was noted that the Metro comes fourth in portable water quality after Cape Town, Durban and City of Johannesburg.
- It was noted that the Metro has adequate network for fresh water supply even in rural areas. Water supply also reaches informal settlement areas. 97% for portable water and 89% for sanitation (Census 2011). The Metro has VIP toilets and these are in some cases emptied by honey suckers when full. Some of the areas (informal settlements and rural areas) are provided with stand pipes for portable water.
- The Metro had 4 purification works run by Amatole and Buffalo City Metropolitan Municipality. The rest of the portable water sources were two boreholes. Together the water sources were nine and Buffalo City Metropolitan Municipality had 4/9 blue drops.

Challenges:
- Illegal connections are experienced in certain areas. This would cause un-accounted water from the reserves.
- No water saving devises were observed popular in the area, e.g. self-closing taps.

Overall observations
- It was confirmed by the people of Duncan Village that stand pipes are being more than sufficient.

Recommendations:
- It is recommended that the rest of the water sources be improved to also achieve blue drop status.

2.3.3.20 What is the municipality’s wastewater status? Green status?

Strengths:
- It was observed that the Metro has adequate waste water treatment facilities in the area. There are 15 Waste Water Treatment Plants and some funds have been approved for upgrading the plants. The Metro has 2 out of 15 green drop certification.
- Some of the rural areas in the Metro are using VIP toilets serviced by the Metro through the use of tankers/honey suckers.

Challenges:
- It is still a concern that some (6/15 Waste Water Treatment Plants) are being run above their capacity at this stage.

Overall observations
It was commendable that funds have been obtained for the upgrade of old plants.

Recommendations:
- None
2.3.3.21 Water management in Municipal buildings

Strengths:
- Most Reconstruction Development Programme (RDP) houses have a rain water harvesting tanks. This is one of the commendable practices to ensure that water is conserved.

Challenges:
- Reports had indicated the aging infrastructure which becomes hard to maintain. Vandalism is also a pervasive problem especially around the community.

Overall observations
- No water saving initiatives were observed in the Metro offices and buildings.

Recommendations:
- It is recommended that self-closing taps must be used extensively especially in public areas.

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2.3.3.22 Water management in parks and gardens

Strengths:
- Plants were growing inside shades to limit evaporation of water. This marginally reduces water demand by plants.
- The Expanded Public Works Programme staff were available at Duncan eco-park to manage the site.
- It was reported that the Metro has done some investigation to try and establish the use of sewer water for irrigation.

Challenges:
- The Mdantsane Eco-Park was badly managed. Toilet facilities were vandalised and no landscaping or grass cutting occurring on site.
- The water taps were very old and kept leaking. This was an indication of poor maintenance at the park. The parks do not have any rain water harvesting tanks on site.

Overall observations
- None

Recommendations:
- The Metro must provide security to those community parks.

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2.3.3.23 Does the Municipality do water audits

Strengths:
- The Metro is aware of their water balance. The unbilled use is about 40% and water loss through infrastructure is 9.3% of the total supply which is well below the National limit of 15%.

Challenges:
- Certain areas are not metered to ensure water accountability, even if it is not to be paid for.
- There were blockages of street drains in townships. The Metro must have a maintenance schedule for street drains.

Overall observations
- None

Recommendations:
- Water supply network was noted around informal settlements. It is recommended that this network must also be metered to ensure accountability.

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2.3.3.25 Re-use of water – use of Grey Water and Black Water

**Strengths:**
- It was reported that some grey water is used to irrigate at the golf course.
- It was commendable that some schools had rain water harvesting tanks.

**Challenges:**
- The Metro has struggled to obtain a license for using sewer water for irrigation purposes.

**Overall observations**
- It was noted that rain water harvesting cannot be possible at informal settlements due to lack of space for tank installations.

**Recommendations:**
- None

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2.3.3.26 Water awareness actions by the Municipality

**Strengths:**
- The Metro has developed some educational pamphlets for water management issues.

**Challenges:**
- During the site visits there were no indications that the awareness strategy is working. River streams located close by residential areas were much polluted. These areas show that a river stream was still used as a waste disposal spot.

**Overall observations**
- None

**Recommendations:**
- The Metro must have a plan to clean their river stream on a regular basis.
- The surrounding community must be involved in that particular programme to ensure that the problem is resolved by them.

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2.3.3.27 Water Conservation Strategy / Plan

Strengths:
- The Metro has strategies in place. There is a Water Conservation strategy, indigent policy, bi-laws, etc. An amount of R132 million is required for implementation. It was also reported that the reuse strategy was also available.
- The Metro has nine water purification plants and most of these are linked to each other via pipes so that water can be easily piped to areas of need. This makes it easy for the Metro to supply their communities in drought stricken areas.
- The total water supply capacity of the Metro is 110 million M3/year and this is well above the current demand.
- Projects indicate that demand might be very close to capacity by 2026 and as such the Metro never had water restrictions in its history.

Challenges:
- None

Overall observations
- The Metro has no water shortage issues and therefore does not feel the need to prioritise water conservation plans.

Recommendations:
- It is advised that water conservation be taken seriously as this will give them a head start in times of draught.

2.3.3.28 Landscaping, tree planting and beautification

Strengths:
- The Metro has one of the biggest Municipal owned nurseries ever seen by the panel members. While this attests to their commitment to green their area of jurisdiction, focus is placed on towns rather than townships. Greening is championed by the parks unit and several tree planting areas were visited in East London.
- The Metro reported programmes for tree plantation throughout the year.

Challenges:
- Illegal dumping of waste has a negative impact on some of this tree planting projects. Vandalism was also reported in certain areas with iconic trees.
Overall observations:
- During site visits, a fair amount of landscaping and tree planting was observed along the main streets. There is evidence of greening initiatives by the Metro although mainly concentrated in the urban areas (towns). The Metro has two Eco-Parks, one in Mdantsane and the other in Gompo town. The parks were funded by National Department of Environmental Affairs and costs R2, 5 million together. The Gompo Park is being maintained and used regularly by the communities.
- The one at Mdantsane is supposed to be maintained by 60 workers employed by the Metro under the Expanded Public Works Programme but this is not happening because the workers don’t work a full week by agreement the workers rely on the Metro to provide working tools which they provide intermittently. The fact that the park is seldom open to the public is also a factor and it defeats the purpose of the park as a leisure place. The park is also highly vandalised and as a result has no running water and the toilets are not usable.

Recommendations:
- None

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2.3.3.29 Does the Municipality have a policy on greening actions

Strengths:
- The Metro reported that they have adopt-a-tree policy in place. They try to ensure that same species of the same size is used in an area. They use water wise and indigenous trees. Fruit trees are often provided to previously disadvantaged communities. In public areas the Metro is conscious about using trees that are less destructive to the pavements and building structures.

Challenges:
- It was noted that tree policy was still a draft. Valuable trees that are planted by the Metro are sometimes chopped off by the certain members of the community for making firewood.

Overall observations
- It was commendable that the Metro has its own nursery. This is self-sufficient and it will reduce costs for greening the area.

Recommendations:
- None

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2.3.3.30 Tree planting in townships

**Strengths:**
- The irrigation system is operated manually when required. This is good for water conservation.

**Challenges:**
- Some members of the community have a perception that planting trees will encourage crime in the area where criminals would hide themselves.
- It is also a concern that grey water is not used, which it could reduce demand on fresh water supply.

**Overall observations**
- None

**Recommendations:**
- It is recommended that all Reconstruction Development Programme housing developments must be linked to greening. Therefore each household must have a tree in their yards. This will be sustainable hence those trees will be managed by them.

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2.3.3.31 Invader plant control

**Strengths:**
- None

**Challenges:**
- The Metro was not aware of the amount of hectares where alien plant clearing had occurred.
- There was still a challenge to find a market for compost made. The water department does not influence the alien eradication programmes of their Parks Unit.

**Overall observations/recommendations:**
- There were no alien eradication projects observed during the inspection in the area.

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2.3.3.32 Public Participation and Community Empowerment

Strengths:
- The Metro has some forum in place where activities of the Metro are communicated. There is an Integrated Development Plan (IDP) budget representative forum and budget public hearings that also involve internal and external stakeholders. The ward committee forum is also in place and seat bi-monthly. Mayoral Imbizo, council open day and ward general. Meetings were also active.

Challenges:
- It was noted with a concern that the Metro does not mention a waste management forum as one of the platform to engage stakeholders.

Overall observations
- The Metro has an active public participation strategy. The public participation annual plan was formulated. Community support centre was established to ensure that members of the community have access to information at a convenient time.

Recommendations:
- The PP Unit needs to broaden its view and realise the strategic position they are occupying in terms of assisting other Metro department in their service delivery and therefore giving better value for money for the communities.

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2.3.3.33 Environmental days and week activities? Elaborate.

Strengths:
- The Metro sits with the provincial departments to compile their annual plans for environmental activities. This is done to ensure cooperative governance. Arbour week was recently celebrated where the Metro was also involved.

Challenges:
- Some challenges were noted during the inspection. Waste was burned at schools. Recycling projects had not started. Agricultural and Environmental projects were not very much active.

Overall observations
- None

Recommendations:
- Practical projects must be sustained at schools.
2.3.3.34 Leadership and Institutional Arrangements

Strengths:
- A new municipal structure is an expected change to a better improvement. There is currently about 600 workers in Waste Management and 10 will be employed in Environmental Management according to the new (Metro) structure which is not approved yet.

Challenges:
- The Metro did not have its vision and mission clearly displayed in various places.
- Vacant positions were still a problem. Most staff are working under temporally conditions.

Overall observations
- It was noted with concern that the Metro also uses a lot of service providers. However this is understandable due to lack of staff, but it is costly.
- The Metro must have its own tools; equipment and also employ staff to perform duties. It was a concern that even grass cutting is done by a service provider.
- The vision of the Metro does mention sustainable environment.

Recommendations:
- None
2.3.3.35 Mechanisms to raise environmental awareness:

Strengths:
- The Metro has developed some articles as an educational material.

Challenges:
- The Metro was concerned about the high costs of using radio stations. As a result there was no slot this Metro was holding with a local radio station.
- It was also reported that mind-set of the community members was still a challenge.

Overall observations
- It was observed that people are still not conscious about environmental issues.

Recommendations:
- None

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2.3.3.36 Bi-laws in place against environmental perpetrators

Strengths:
- The Metro has identified peace officers for trainings. The identified people will be enforcing the by-laws.
- The Metro has six peace officers which have not been sworn in yet. They also use Metro cops (about 150 officers). The by-laws have fines and jail sentences as punishments. The Metro also uses EHPs to reinforce enforcement.

Challenges:
- Although the by-laws are in place but implementation was still a challenge. The available by-laws are also due for review. The Metro indicated that this will be done in the next financial year.
- In spite of all these efforts enforcement is still weak as the Buffalo City Metropolitan Municipality recently lost an environmental contravention case of illegal dumping due to weak evidence.

Overall observations
- The enforcement of by-laws still needs to be improved

Recommendations:
- It is recommended that the Metro studies the court decision closely to identify areas for improvement
2.3.3.37 Presentations:

**Strengths:**
- The panel members only received one presentation (Waste Management) on the first day out of four (Landscaping; Water (portable and sanitation); Public Participation) that were given in total. The other three were given on the second day and there were no presentation from Leadership and Energy.
- The Waste Management presentation was well prepared.

**Challenges:**
- All the presentations given were not prepared according to the GMC evaluation sheet. The irrelevance of the Public Participation was of note as it contained mainly definitions rather than service delivery stories. The portfolio of evidence was also lacking.
- There was none for energy efficiency.
- The Metro did not demonstrate a good working relationship between the different sections/ departments. The divisions that seemed to have a good supporting relationship were the sanitation and portable water sections and this was commendable.

**Overall observations/recommendations:**
- The general view from the panellist was that the Metro was not fully prepared for this evaluation.
2.3.3.38 General observations of the Municipality

Areas of Strength:
- This Metro has strengths only in water management.

Areas of Challenge:
- The Metro seems understaffed compared to its size.
- The waste management strategy is old-fashioned. The Metro is still disposing a lot of waste into their landfill sites. Recycling does not seem to be a strong point for Buffalo City Metropolitan Municipality and this is informed by the type of waste at the Landfill site; the volumes of recyclables collected by the DV Recycling Co-operatives and the volumes of white paper sold to Re-Claim. It was rather disappointing that the second biggest township in South Africa has only one small recycling operation.
- The management of the Landfill site was very poor. There was not compacting and covering on the Roundhill sites. The Roundhill site had a fire running for a few days during the day of the site visits. Firefighters were busy putting out the fire on the day of the site visit (28/11/2013). Signage was visible at the Roundhill site while none was existent at the King Williams Town Landfill site. Both Landfill sites had outside signages with the name of the Landfill site and the contact details of the managers. However there were not signages indicated what type the Landfill site were and what waste they accept.
- It is a known fact that illegal dumping is a result of lack of efficiency from waste management mainly collection and planning. This then means that places where communities dispose their waste illegally are potentially effective Landfill site/ drop-off sites/ transfer stations sites.

Recommended Action:
- It is recommended that the Metro establish a turnaround strategy regarding their waste management. The Metro must reduce the large amount of waste material that is being sent to landfill sites. This can be achieved by starting with separation from source. Transfer stations and drop off centres must be used for sorting in order to recover recyclables.
- While most of the old South African Landfill site permits prohibit waste picking, the existence of pickers on landfills is a well known South African problem. It is the advice of the panel that Buffalo City Metropolitan Municipality apply for licence amendments to allow pickers to take away the recyclables. This however should be accompanied by a plan to formalise the picking and health and safety guidelines.
- There must be a well-established recycling programme. The recycling programme must involve community cooperatives and informal waste declaimers. Informal waste declaimers must be recognised and supported. This will create job opportunities for them whilst reducing the tonnages of waste going to the landfill sites.

General Observation and Comments
- **Illegal dumping:** It is a known fact that illegal dumping is a result of lack of efficiency from waste management mainly collection and planning. This then means that places where communities dispose their waste illegally are potentially effective Landfill site/ drop-off sites/ transfer stations sites. This means that the Municipality can change from viewing the illegal dumping site as compliance headaches to realising that this is a vote of confidence for a location of waste management infrastructure by the communities involved.
• **Waste picking:** While most of the old South African Landfill site permits prohibit waste picking, the existence of pickers on landfills is a well-known South African problem. It is the advice of the panel that Buffalo City Metropolitan Municipality apply for licence amendments to allow pickers to take away the recyclables. This however should be accompanied by a plan for formalise the picking and health and safety guidelines.

• **LFS Management:** The management of the Landfill site was very poor. There was not compacting and covering on the Roundhill sites. The Roundhill site had a fire running for a few days during the day of the site visits. Fire fighters were busy putting out the fire on the day of the site visit (28/11/2013). Signage was visible at the Roundhill site while none was existent at the King Williams Town Landfill site. Both Landfill site had outside signages with the name of the landfill site and the contact details of the managers. However there were no signages indicated what type the Landfill site were and what waste they accept.

• **State of the Drop-Offs:** While the drop-off stations served a good service, it is important for the Buffalo City Metropolitan Municipality to maintain them in a good and clean state.

• **Siting of transfer stations:** The Metro indicated difficulties in securing land for transfer stations. This was not adequately explained and so the panel felt it might be a question of funds more than unavailability of land. A suggestion was given that the Metro should look into converting the popular illegal dumping sites into drop-off or transfer stations.

• **Waste collection:** There is still a lot to be improved in Buffalo City Metropolitan Municipality with regards to waste management especially collection and disposal. The lack of adequate collection leads to illegal dumping while mismanagement of Landfill site leads to the Landfill site fires as observed on the 28/11/2013.

• **Office Recycling:** The Metro was advised by the panel to institutionalise recycling by developing a waste management / recycling policy so that compliance of officer users and cleaners will be easier to enforce in the institution.

• **Community Separation at Source:** The panel noted that the Metro is planning a three bag separation at source programme for selected residential areas composing of both town and township suburbs.
2.4 LOCAL MUNICIPALITIES

2.4.1. Mogalakwena Local Municipality

Waste Management

2.4.1.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- Draft Integrated Waste Management Plan (IWMP) in place

Challenges:
- The IWMP is still at draft form

Overall observations/recommendations:
- The municipality must finalise the draft IWMP and present for council approval

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2.4.1.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- Discourage the use of bottled water in council
- Use of ICT
- Use of digital media to communicate with the public

Challenges:
- There was misunderstanding of the concept of prevention and minimisation of waste generation but it was well cleared during presentation.

Overall observations/recommendations:
- The municipality must consider prioritising waste prevention and minimisation in line with the waste hierarchy.

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2.4.1.3 What does the municipality do to re-use & recycle waste

Strengths:
- Data base of buy-back centres operating in the municipal area
- Re-use old plastic bottles at the nursery
- Making art from different waste material
- The reuse of alien vegetation cut offs as fire wood and Free Basic Electricity for the community

Challenges:
- Minimal community involvement in waste to art and reuse of plastic bottles

Overall observations/recommendations:
- The municipality must do more to raise awareness and promote recycling
- The monitoring of the used oil recycling facility is a good practice that must be maintained
- The waste to art is a good project and the municipality must consider getting more people involved

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2.4.1.4 Waste Disposal Facilities

Landfill sites

Strengths:
- Two permitted landfill sites
- Fence and access control
- No salvaging at both sites
- Use of purpose made machinery at the landfill site

Challenges:
- Excess use of cover material at the Rebone Landfill
- No weighbridge

Overall observations/recommendations:
- Minimise the use of cover material at the Rebone site & prolong the lifespan of the site
- Install the weighbridge at the Mokopane Landfill
2.3.3.1.5 Storm water management

Leachate management

Monitoring activities

**Strengths:**
- The Rebone GCB- site comes with less requirements well

**Challenges:**
- Poor maintenance of storm water management channel and leachate dam

**Overall observations/recommendations:**
- The municipality should consider improving measures for management of storm water and leachate at Mokopane landfill site.

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2.3.3.1.6 Transfer Stations

**Strengths:**
- No evidence of the need for transfer station observed

**Challenges:**
- None

**Overall observations/recommendations:**
- The municipality is making use of the two landfill sites and communities in this predominantly rural municipality generate minimal waste thereby reduce the need for transfer station
### 2.3.3.1.7 Drop-off areas

**Strengths:**
- None

**Challenges:**
- None

**Overall observations/recommendations:**
- The Municipality should consider turning some of the known illegal dumping spot into drop off stations

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### 2.3.3.1.8 Medical waste management:

**Strengths:**
- Private company contracted
- High awareness of the sources and entities dealing with medical waste
- Information to communities for separation at source & safe disposal in clinics

**Overall observations/recommendations:**
- Good understanding of the medical waste collection and disposal

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## 2.3.3.1.9 General Cleanliness in town

### Strengths:
- The town is clean with receptacles placed in strategic points
- Deployment of personnel for cleaning after working hours and weekend

### Challenges:

### Overall observations/recommendations:
- Generally clean and well maintained

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## 2.3.3.10 General cleanliness of residential areas

### Strengths:
- Clean and well maintained
- Regular collection of refuse in residential areas

### Challenges:
- No collection in rural areas

### Overall observations/recommendations:
- The municipality should consider extending the service provision to rural areas

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2.3.3.1.11 General cleanliness of townships

Strengths:
- Scheduled collection
- Allocation of bins in strategic areas
- Appointment of community based volunteers to monitor known illegal dumping spots

Overall observations/recommendations:
- The municipality should consider developing Drop Off centres

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2.3.3.1.12 General cleanliness of industrial areas

Strengths:
- Low industrial base and growing

Overall observations/recommendations:
- The industrial area is very clean and it is recommended that the municipality maintain this best practice

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2.3.3.1.13 Education and awareness programmes about waste

**Strengths:**
- Use of different media to raise awareness
- Engagement of community through ward committees and forums
- Use of council bills that goes to residents to raise awareness

**Challenges:**
- Limited media rooms active in the area

**Overall observations/recommendations:**
- The municipality should consider producing its own publication on waste

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2.3.3.1.14 Energy Efficiency and Conservation

**Strengths:**
- High level of awareness on energy consumption and limitations

**Challenges:**
- More work needed

**Overall observations/recommendations:**
- The municipality should consider conducting energy audit

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2.3.3.1.15 What is the Municipality doing to reduce their carbon footprint?

Strengths:
- The municipal fleet being changed for new and efficient models
- Good relationship and monitoring of used oil facility that provides the service to the entire province

Overall observations/recommendations:
- The promotion of used oil facility for use by the community in general is a good practice that shows the municipality to be leading by example

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2.3.3.1.16 Energy Audits

Strengths:
- Implementation of some energy efficiency measures

Challenges:
- No energy audit conducted

Overall observations/recommendations:
- The Municipality must fast track conducting energy audits and implement recommendations

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2.3.3.1.17 Awareness

Strengths:
- Partnership with Eskom on raising awareness

Challenges:
- No municipal owned drive to raise awareness

Overall observations/recommendations:
- The Municipality must develop its own strategies and activities for awareness raising

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2.3.3.1.18 Strategy

Strengths:
- Some work just started to develop the strategy

Challenges:
- No strategy in place

Overall observations/recommendations:
- The municipality must consider fast tracking the development of the strategy

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2.3.3.19 How does the municipality deal with the management of mercury

Strengths:
- Safe storage of mercury at the Electrical Department Depot
- Safe disposal of mercury through a private contractor
- Some work being done to encourage households to separate mercury from general waste

Overall observations/recommendations:
- The municipality must increase its efforts around getting households involved

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2.3.3.20 Water Management and Conservation

Strengths:
- The municipality has proof of the latest assessment results available

Challenges:
- Delays in announcing 2013 assessment results by the Department

No | Yes
2.3.3.1.21 Water management in Municipal buildings

**Strengths:**
- Water efficient technology in use
- Use of water less trees in municipal buildings

**Challenges:**
- Water scarce area forces the municipality to conserve water in its buildings

**Overall observations/recommendations:**
- The municipality must consider deploying more measures to save water in buildings

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2.3.3.1.22 Water management in parks and gardens

**Strengths:**
- Use of water less trees
- Innovative irrigation that water directly where the plants needs trees
- Creation of stone garden

**Overall observations/recommendations:**
- Good practice in place and must be maintained

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2.3.3.1.23 Does the Municipality do water audits

Strengths:
- Regular water audits conducted
- High awareness of water consumption

Challenges:
- Water scarce area

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.3.3.1.24 Sewer management:

Strengths:
- Evidence of good operations and maintenance of plant visited

Challenges:
- Grass grows very fast in the facility

Overall observations/recommendations:
- The municipality must consider dedicating a grass cutting machine for the municipality

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2.3.3.1.25 Reuse of water – use of Grey Water and Black Water.

Strengths:
- Reuse of grey and black water to water the gardens
- Reuse of the water by the local mines

Overall observations/recommendations:
- The shortage of water in the area has forced the municipality and nearby mines to pipe treated water for use in their underground cleaning activities

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2.3.3.1.26 Water awareness actions by the Municipality

Strengths:
- High level of water awareness is evident from the innovations that exists within the municipality in relation to reuse and conservation of water
- Celebration of water month and regular feedback to communities on water quality and supply

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.3.3.1.27 Water Conservation Strategy / Plan

**Strengths:**
- Evidence of the water conservation strategy being implemented

**Overall observations/recommendations:**
- Good practice in place and must be maintained

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2.3.3.1.28 Landscaping, tree planting and beautification

**Strengths:**
- Establishment of community gardens
- Involvement of communities in greening
- Partnerships with the Provincial Department, National and other stakeholders on greening issues

**Challenges:**

**Overall observations/recommendations:**
- Good practice in place and must be maintained

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2.3.3.1.29 Do the municipality have a policy on greening actions

Strengths:
- Greening policy in place

Overall observations/recommendations:
- The implementation of the greening policy is evident throughout the municipal area

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2.3.3.1.30 Tree planting in townships

Strengths:
- Tree planting in RDP in place
- Distribution of trees to community members and schools on request for free
- Municipal owned nursery with a variety of trees and plants

Overall observations/recommendations:
- Good practice in place must be maintained

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2.3.3.1.31 Invader plant control

Strengths:
- Involved in working for water and wetlands
- Partnership with the local Zoological garden
- Emphasis on alien plants eradication as a water conservation measure

Overall observations/recommendations:
- Good practice in place and must be maintained
### 2.3.3.32 Public Participation and Community Empowerment

**Strengths:**
- Use of ward committees and imbizos
- IDP consultation forums and local media

**Challenges:**

**Overall observations/recommendations:**
- Good practice in place and must be maintained whilst increasing reach

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### 2.3.3.1.33 Environmental days and week activities

**Strengths:**
- Celebration of environmental calendar month

**Challenges:**
- No clarity on which themes were covered

**Overall observations/recommendations:**
- Package evidence of undertaken activities across all themes covered

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2.3.3.1.34 Leadership and Institutional Arrangements

**Strengths:**
- To be the leading sustainable and diversified economic hub focused on community needs is the vision of the municipality and it captures the environment and sustainability issues
- The leadership and institutional structures are well aligned and supportive to the green agenda

**Challenges:**
- Shortage of staff

**Overall observations/recommendations:**
- Prioritise filling vacant posts

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2.3.3.1.35 Mechanisms to raise environmental awareness:

**Strengths:**
- Use of local media
- Environmental campaigns and training of community volunteers

**Challenges:**
- Limited media rooms for use to spread the environmental message

**Overall observations/recommendations:**
- Good practice in place and must be maintained

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2.3.3.1.36 Bi-laws in place against environmental perpetrators

Strengths:
- Evidence of enforcement of municipal by law presented
- Emphasis on water restrictions, heritage and waste management

Overall observations/recommendations:
- Good practice in place and must be maintained whilst increasing penalties

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2.3.3.1.37 Presentation

Strengths:
- The municipality was well prepared for the presentation
- The participation of ICT in the presentation demonstrated practically the commitment of the municipality to using ICT for environmental gains
- The presence of elected officials

Overall observations/recommendations:
- Good practice and must be maintained

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2.3.3.1.38 General observations of the Municipality

Areas of Strength:
- Enforcement of none motorised transport by law that recognise and promote the use of donkey carts in towns and other areas within the municipal boundaries.
- Design and development of art from waste.
- The use of well-resourced municipal owned nursery for tree planting and greening by distributing seeds and plants to schools, households, etc. on request or in celebration of environmental days.
- Water saving and reuse measures.
- Partnership and close working relations with the mining houses.
- Community participation and buy in as volunteers to safe guard the environment.
- Emphasis on heritage and tourism as key in developing local green economy.
- Participation of elected officials in greening efforts and community mobilisation at ward level.

Areas of Challenge:
- Mokgalakwena is a water scarce area.
- Mining is the biggest industry and present an environmental challenge post mining.
- The area is predominantly rural and this directly translate into low revenue base and insufficient budget for greening activities.
- The absence of a broader energy strategy to guide municipal activities around energy.
- General cleanliness and organisation at landfill site.

Recommended Action:
- The Municipality must consider expanding the art from waste by commercialising the project and open up new job opportunities for locals.
- The Municipality must improve the general management of landfill site and ensure easy access to monitoring stations and improved management of leachate dam.
- The municipality must share the best practices whilst maintaining the level of excellence.
2.2.4 uMhlathuze Local Municipality

Waste Management

2.2.4.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Integrated Waste Management Plan (IWMP) is in Place

Challenges: -

Overall observations/recommendations:
- Intensify implementation

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2.2.4.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- Use of ICT to exchange information and thereby avoid printing
- Electronic newsletter
- Sending sms to customers on service delivery issues

Overall observations/recommendations:
- Good practice in place and must be sustained

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2.2.4.3 What does the municipality do to re-use & recycle waste

Strengths:
- Some recycling efforts and dedicated staff members
- Recyclables also collected on refuse removal days
- Recycling used as a vehicle for community empowerment and job creation

Challenges:
- Viability of the recycling projects

Overall observations/recommendations:
- The municipality must consider putting more measures in place to facilitate the growth of the recycling industry, both in terms of collection and procurement of products with percentage of recyclable material
- Good practice in place must be sustained

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2.2.4.4 Waste Disposal Facilities

Landfill sites

Strengths:
- Regional landfill site permitted and proper access control
- Site monitoring committee
- Proper access control
- Controlled recycling and material recovery on site

Overall observations/recommendations:
- The site is estimated to have about 40 years remaining life span
- The site is located within UMhlathuze Local Municipality boundaries and serves as a regional facility catering for all neighbouring municipalities

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2.2.4.5 Storm water management

Leachate management

Monitoring activities

Strengths:
- Leachate dam in place
- Leachate is also routed to waste water treatment plant
- Storm water properly managed

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.6 Transfer Stations

Strengths:
- The closed Alton landfill site is now used as a transfer station and recycling facility

Overall observations/recommendations:
- The conversion of the closed landfill into a transfer station is a good practice as it allows some sort of continuation in relation to land use

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2.2.4.7 Drop-off areas

Strengths:
- Esikhaweni Recycling and Drop Off Centre

Challenges:
- Not well maintained

Overall observations/recommendations:
- Improve management and demarcation of the facility

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2.2.4.8 Medical waste management:

Strengths:
- Provincial competency
- Private company contracted to manage this waste stream

Overall observations/recommendations:
- Municipality must take more interest in monitoring the performance of the contractor particularly in relation to final safe disposal

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2.2.4.9. General Cleanliness in Town

Strengths:
- Sufficient receptacles observed in towns and placed strategically with cleansing personnel

Overall observations/recommendations:
- No evidence of littering and the receptacles are only placed where necessary

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2.2.4.10 General cleanliness of residential areas

Strengths:
- Regular collection of waste
- Sufficient resources both in terms of personnel and supplies dedicated to ensuring cleanliness in residential areas

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.11 General cleanliness of townships

Strengths:
- Regular, once a week collection of waste

Challenges:
- Some evidence of illegal dumping and littering

Overall observations/recommendations:
- The municipality must consider increasing its efforts around illegal dumping removal in the township

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2.2.4.12 General cleanliness of industrial areas

Strengths:
- Industrial areas are generally clean
- Adoption of adjacent land for cleaning by industry
- Allocation of additional personnel for cleaning industrial areas

Overall observations/recommendations:
- Evidence of industry taking charge for cleaning in their surrounding areas
- Good practice in place and must be maintained

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2.2.4.13 Education and awareness programs about waste

Strengths:
- Notices and bin signage
- Very good relationship with the local media
- Use of different media and community forums to raise awareness

Overall observations/recommendations:
- Presence of the local media during evaluation and coverage of the GMC in the local newspaper the very following day

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2.2.4.14 Energy Efficiency and Conservation

Strengths:
- Solar installation
- Alton Landfill gas project and installation of solar systems
- Motion sensor for lighting in the offices
- Energy Efficiency & Demand side management project funded by Department of Energy

Challenges:
- Presence of intensive energy users that contributes to the local and national economy

Overall observations/recommendations:
- Rollout green building in municipal building thereby lead by example for industry to follow

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2.2.4.15 What is the Municipality doing to reduce their carbon footprint

Strengths:
• The municipality is changing its old fleet for new ones
• Old oil is taken for safe disposal and recycling

Challenges:
• Limited resources to change all fleet

Overall observations/recommendations:
• The municipality must investigate other measures to reduce carbon footprint

Strengths:
- Conducted study on energy consumption of traffic signals that led to the replacement of old incandescent lamps with LED lamps
• Energy audit of some municipal buildings conducted

Challenges:
• No evidence of this work impacting on the broader community

Overall observations/recommendations:
• The municipality must consider increasing its effort particularly in relation to getting industry and communities on board with regards to the energy audits
2.2.4.17 Awareness

Strengths:
- Conducted awareness campaign on electricity and energy awareness in schools
- Developed a booklet and conduct competition

Challenges:
- No sufficient funds for awareness

Overall observations/recommendations:
- The municipality must conduct more awareness campaign with focus on industry and households in the area

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2.2.4.18 Strategy

Strengths:
- The draft strategy has been developed
- Implementation of the strategy

Challenges:
- Not yet presented for council approval

Overall observations/recommendations:
- The municipality must consider finalising the strategy

No | Yes
2.2.4.19 Important is how do the municipality deal with the management of mercury

Strengths:
- Removal and Disposal of Existing High Pressure Sodium and Mercury Vapour Streetlight Luminaries and replace with Light Emitting Diodes (LED)
- Drums allocated to store mercury and service provider appointed for collections

Challenges:
- The service provided internal as there was no evidence of this practice in the broader community

Overall observations/recommendations:
- The municipality must consider expanding the provision of this service across the municipal area

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2.2.4.20 Water Management and Conservation

Strengths:
- Performed well in the last assessment
- Assessment was conducted for the current year and await results

Challenges:
- Awaiting results for this current year

Overall observations/recommendations:
- The municipality strive to maintain its positive green and blue drop status

| No | Yes |

2.2.4.21 Water management in Municipal buildings

Strengths:
- Water services by law passed and can be accessed on the municipal website: www.umhlathuze.gov.za
- Leak-free Green Toilet System - All toilets in the Empangeni and Richards Bay Civic Centres as well as the municipal depots at Empangeni, Alton and eSikhawini have been fitted with a leak-free green toilet system in an attempt to save water.

Overall observations/recommendations:
- Good practice and must be maintained
2.2.4.22 Water management in parks and gardens

Strengths:
- Reuse of waste water to water the gardens
- Controlled irrigation in the morning or afternoon
- Use less water in parks and gardens

Challenges:
- Very limited reuse of water

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.23 Does the Municipality do water audits? Evidence is needed

Strengths:
- The municipality conducts both internal and external water audits as part of a water quality monitoring programme

Challenges:

Overall observations/recommendations:
- Good practice and must be sustained

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No | Yes
2.2.4.24 Sewer management:

Strengths:
• Generators in place in case of power shortage

Challenges:
• No clarity on turnaround time for unblocking blockages in the system

Overall observations/recommendations:
• The municipality must consider setting targets for addressing blockages

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2.2.4.25 Reuse of water – use of Grey Water and Black Water

Strengths:
• The municipality reuse grey and black water
• Richards Bay Municipality is currently in the process of building a plant at Esikhawini. The effluent from Esikhawini Waste Water Treatment Works (WWTW) will be used in the process of this plant. (6.5 ml/day) transfer scheme form Empangeni WWTW.

Challenges:
• The reuse is limited

Overall observations/recommendations:
• There are plans in place aimed at increasing the reuse of grey and black water

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2.2.4.26 Water awareness actions by the Municipality

Strengths: -
- Water quality is communicated to all interested and affected parties on water conservation (http://www.umhlathuze.gov.za/?page_id=5962)
- Water week celebrations

Challenges:
- Measurement of water awareness campaign success

Overall observations/recommendations:
- The municipality must consider taking stock of its awareness activities with a view of getting a sense of the extent of failure and or success thereof

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2.2.4.27 Water Conservation Strategy / Plan

Strengths: -
- The Municipality has adopted a Water Services Development Plan (WSDP) to manage its water and sanitation services
- Water Demand Management is conducted on an annual basis

Challenges: 

Overall observations/recommendations:
- The municipality must implement the Water Services Development Plan and monitor progress

| No | Yes |
2.2.4.28 Landscaping, tree planting and beautification

Strengths:
- Partnership with Wild land Conservation Trust resulting in community empowerment through creation of jobs in the planting of trees in the area
- Thousands of trees planted and some given to households

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.29 Does the municipality have a policy on greening actions

Strengths:
- The municipal council have passed the following resolution in pursuit of greening action: Planting & Removal Guidelines, Donation of trees, Control & Protection of trees and Monetary valuation on replacements/damages
- Clear outline of greening policy objectives with focus on job creation and townships

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.30 Tree planting in townships

Strengths: -
- Supports local communities involved in propagation of trees
- Priority given to upgrade and rejuvenate especially previously disadvantaged areas within the jurisdiction of the municipality
- Tree planting linked to RDP housing

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.31 Invader plant control

Strengths: -
- Eradication and control of alien weeds and invader vegetation policy in place and adopted by council
- Parks department is working in partnership with Department of Agriculture and Environmental Affairs in exotic plants control and replacing them with indigenous plants

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.32 Public Participation and Community Empowerment

Strengths:
- Community empowerment and job creation
- Eco Schools in place
- Working with the NGO's such as the Wildlands Trust

Challenges:
- Little evidence of green economy and enterprise development for community benefits

Overall observations/recommendations:
- The municipality must consider green economy and facilitate the participation of locals in such not only as workers but Small Medium and Micro Enterprises.

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2.2.4.33 Environmental days and week activities

Strengths:
- Celebration of environmental calendar days
- Distribution of trees and other supplements to communities and schools during such days
- Developed material for awareness raising on environmental calendar days

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.4.34 Leadership and Institutional Arrangements

Strengths:
- The vision “Port City of Umhlathuze offering improved quality of life for all its citizens through sustainable development” is in line with greening
- All relevant strategies and plans in place

Challenges:
- Some shortage of staff

Overall observations/recommendations:
- Recruit personnel and sustain the good work

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2.2.4.35 Mechanisms to raise environmental awareness:

Strengths:
- Use of official newsletter, environmental watch dogs and ward meetings
- Training of informal traders on hygiene

Challenges:
- Distribution channels to all sectors of the community not clear

Overall observations/recommendations:
- Urgent need for the municipality to develop plans to reach all sectors of the community

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2.2.4.36 Bi-laws in place against environmental perpetrators

Strengths:
- Reflections on the role of the municipality in facilitating emergency response and remedial action in relation to the coal and crude oil accident in the sea

Challenges:
- No evidence of fines/punishment given and or paid for transgression

Overall observations/recommendations:
- Bi-laws in place and the municipality must consider keeping records of enforcement
- The municipality played a key role in facilitating a multi stakeholder enforcement of relevant laws in relation to the presented case study at the sea

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2.2.4.37 Presentation

Strengths:
- Presence of key personnel during presentation
- Good, quality and relevant presentation

Overall observations/recommendations:
- The good team spirit demonstrated during presentations

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2.2.4.38 General observations of the Municipality

Areas of Strength:
- The municipal capacity and expertise.
- Ability to respond to environmental crisis situation in partnership with other organs as demonstrated in the recovery and cleans up of fuel and other pollutants from the sea after a bulk carrier spillage.
- The partnership with the Wildland Trust resulting in the eradication of alien vegetation, planting of trees and job creation.
- High level of commitment to greening led by the municipal manager with strong participation of councillors.
- Good relationship with the media resulting in media coverage of environmental efforts by the municipality.
- Some extensive work on diversifying the energy supply mix and regular engagements with the intensive users of energy.
- The regional landfill site is located within the municipal boundaries and the municipality plays a key role in the monitoring of the landfill thereby ensuring compliance.

Areas of Challenge:
- The low level of recycling activities.
- Presence of heavy industry and energy intensive users companies.
- Insufficient evidence of community participation and empowerment.

Recommended Action:
- The municipality must consider developing appropriate strategies to support the growth and development of the local recycling market.
- Maintain regular engagement with the energy intensive users whilst increasing efforts around energy efficiency and diversification.
- Increase efforts around community empowerment and green economy support.
2.2.5 Nkomazi Local Municipality

Waste Management

2.2.5.1 Integrated Waste Management Plan in place or any waste management plan

Strengths: The Municipality have the Integrated Waste Management Plan (IWMP)

Challenges: None
The Municipality is intending to review the document so as to accommodate their initiatives and improvements.

Overall observations/recommendations:

2.2.5.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- Evidence of waste minimisation during the evaluation by serving tap water with normal cups, printing of the agenda on both sides and submitting portfolio of evidence on memory stick
- Reference to waste minimisation as part of normal municipal business through the use of ICT

Challenges:
- Access to ICT technologies by local communities who need to access information from the municipality
- Limited activities around waste minimisation

Overall observations/recommendations:
- The municipality must sustain the practice of minimising waste in meetings
- The Municipality must consider expanding activities around waste minimisation
2.2.5.3 What does the municipality do to re-use & recycle waste

Strengths:
- A proposal is in place to support an existing Recycling group
- Some locals involved in Waste to Art show case their products during presentations
- Use of waste material from the sugar plant as cover material at the landfill site
- Supports the reuse of organic waste to make compost

Challenges:
- No buy back-centre operating in the area visited
- The recycling market not well supported

Overall observations/recommendations:
- The municipality must develop plans to support the local recycling market

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2.2.5.4 Waste Disposal Facilities

Landfill sites

Strengths:
- The Municipality is using the privately owned landfill site at TSB.
- Controlled odour and sufficient cover material
- Proper access control and the weighbridge
- No salvaging taking place

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Challenges:
- The Municipal Landfill site which is located at KwaMqhekeza is full and the Municipality is currently busy developing a new site
- No Landfill site monitoring committee for the private site

Overall observations/recommendations:
- The Municipality must fast track the development of the new Steenbok landfill as they already have a license
- The municipality as the biggest client of TSB must consider requesting TSB to set up the landfill site monitoring committee

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2.2.5.5 Storm water management

Leachate management

Monitoring activities

Strengths:
- Storm water and leachate management system in place

Challenges:
- None

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.5.6 Transfer stations

**Strengths:**
- There are plans to convert a known illegal dumping spot into transfer station

**Challenges:**
- No transfer station
- Budget limitation to set up the transfer station

**Overall observations/recommendations:**
- The municipality must prioritise funding for the setting up of the transfer station

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2.2.5.7 Drop-off areas

**Strengths:**
- None

**Challenges:**
- No drop off site visited

**Overall observations/recommendations:**
- The Municipality should consider turning some of the known illegal dumping spot into drop off stations

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2.2.5.8 Medical waste management

Strengths:
- Private company (Isibonele Waste Solution) contracted to manage medical waste
- Evidence of the municipality’s engagement with the waste company thereby monitoring the provision of the service

Challenges:
- None

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.5.9 General Cleanliness in town

Strengths:
- The main town is Malelani and it is generally clean.
- Receptacles are put at strategic points.
- Street cleaning is done by the Municipal officers waste removal team with the support from the EPWP.
- Communities and schools are encouraged to reuse materials, reduce waste and recycling through programmes like the Cleanest School Competition and the cleanest ward Competitions.

Challenges:
- The waste management fleet is waste getting old and dilapidated and will results in break downs at some point.

Overall observations/recommendations:
- The municipality must consider regular fleet maintenance and upgrade to sustain the quality of service currently provided.
- Good practice in place and must be maintained.

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2.2.5.10 General cleanliness of residential areas

Strengths:
- The presentation took place in the township municipal community hall and it was clean
- The Community of Nkomazi is using the provided skips and receptacles
- Community awareness and involvement in different forms towards the general cleanliness of their neighbourhoods
- General cleanliness of the area around the Samora Machel Statue in Mbuzini
- Clean up campaigns are conducted in villages and townships

Challenges:
- Pockets of illegal dumping observed in some villages

Overall observations/recommendations:
- The municipality must consider expanding the provision of service to rural areas
- Good practice in place and must be maintained

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2.2.5.11 General cleanliness of industrial areas

Strengths:
- The biggest Industry in the area owns the landfill site which is also located in the industrial area
- The Industrial area is generally clean
- Prominence of natural resources base industries

Challenges:
- None

Overall observations/recommendations:
- The Industrial area is generally clean and must be maintained

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2.2.5.12 Education and awareness programmes about waste

Strengths:
- Use of different media and own newsletter
- Best schools in greening such as Phambanisa Primary School and Lugediiane Primary Schools are used as best model to inspire others
- Use of drama and learners to speak on environmental themes
- Deployment of volunteers such as Zama Zama volunteers to raise awareness

Challenges:
- None observed

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.5.13 Energy Efficiency and Conservation

Strengths:
- The community hall at KwaMhlushwa where the presentation took place was an example of green building as it is north facing and uses natural light
- Good relations between the municipality and private developers who are going green in building their own residences and guest houses
- The building control department is working on fast tracking by laws that promotes green building principles and practices
- Installation of solar street lighting at Tunda next to Mzinti

Challenges:
- None

Overall observations/recommendations:
- The municipality must maintain the good practice of keeping records of green building projects in the municipal area
- The municipality must consider developing more of its own green building projects and this can include conducting energy audits of municipal building for start and implementing recommendations

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2.2.5.14 What is the Municipality doing to reduce their carbon footprint

Strengths:
• Installation of solar street lighting
• Rollout of energy efficient street lights in Malelane, Hectorspruit and Komatipoort
• Private company contracted to remove used for safe disposal and or recycling

Challenges:
• Fleet maintenance and upgrade

Overall observations/recommendations:
• The municipality must consider replacing the old fleet budget allowing
• The municipality must also consider the expansion of the used oil collection service to other sectors of the community

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2.2.5.15 Energy Audits

Strengths:
• The municipality monitors the energy consumption in some of its operations

Challenges:
• No energy audit report presented

Overall observations/recommendations:
• The municipality must consider conducting energy audit and implementing the audit recommendations

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2.2.5.16 Awareness

Strengths:
- Partnership with Eskom on adhoc energy awareness campaigns
- Use of the municipal services bills to send information
- Use of the municipal newsletter
- Distribution of energy efficient lights to communities

Challenges:
- No continuous energy awareness campaign

Overall observations/recommendations:
- The municipality must consider developing an ongoing energy awareness campaign

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2.2.5.17 Strategy

Strengths:
- None

Challenges:
- No energy efficiency strategy in place

Overall observations/recommendations:
- The municipality must consider developing the energy strategy

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2.2.5.18 How does the municipality deal with the management of mercury

Strengths:
- Sorting and separation of e-waste
- The e-waste and fluorescent bulbs are given to TSB to be recycled and or safe disposal.

Challenges:
- None

Overall observations/recommendations:
- The municipality must consider expanding this service to the community at large

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2.2.5.19 Water Management and Conservation

Strengths:
- None

Challenges:
- No information on the latest blue drop results

Overall observations/recommendations:
- The Municipality is clear on its weaknesses and strengths in this area
- The municipality must fast track its maintenance plans for better results in the next blue drop assessment cycle

No  Yes

2.2.5.20 Does the municipality have a proof of what the water status is

Strengths:
- None

Challenges:
- No information on the latest green drop results

Overall observations/recommendations:
- The municipality must fast track its plant maintenance plans for better results in the next blue drop assessment cycle

No  Yes
2.2.5.21 Water management in Municipal buildings

Strengths:
- Reference to water saving installation in some municipal buildings

Challenges:
- Limited interventions around water management

Overall observations/recommendations:
- The municipality must consider implementing water management measures in municipal builds

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2.2.5.22 Water management in parks and gardens

Strengths:
- The municipality only water the gardens and parks in the morning or afternoon to save water

Challenges:
- Limited interventions for water management in parks and gardens

Overall observations/recommendations:
- The municipality must investigate more opportunities for improved water management in parks and gardens

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### 2.2.5.23 Does the Municipality do water audits

| Strengths: | Water audits are conducted in the municipality |
| Challenges: | None |
| Overall observations/recommendations: | Good practice in place and must be maintained |

**No** | **Yes**

### 2.2.5.24 Sewer management:

- **Strengths:**
  - Plans to upgrade sewer plant at an advance stage

- **Challenges:**
  - Old infrastructure resulting in system failure and poor service level

- **Overall observations/recommendations:**
  - The municipality must fast track the plant upgrade plans thereby improve the quality of service and system performance

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### 3.25 Reuse of water – use of Grey Water and Black Water

- **Strengths:**
  - At Monte Vista treated waste water is used for irrigation of local farms and gardens

- **Challenges:**
  - None
Overall observations/recommendations:
- The municipality must expand areas where waste water can be reused

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2.2.5.26 Water awareness actions by the Municipality

Strengths:
- Partnership with Mpumalanga Water Caucus
- Learners are sensitised on water and are used to dramatise water saving messages
- The Municipality officials do door to door creating awareness and fixing leaking taps
- Local radio, press and municipal newsletter is used to send messages to the community
- Celebration of water week in partnership with Department of Water Affairs (DWA)

Challenges:
- None

Overall observations/recommendations:
- Good practice in place and the municipality must sustain

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### 2.2.5.27 Water Conservation Strategy / Plan

**Strengths:**
- Water saving strategy in place
- Installation of flow meters at Malelane Water works for water loss management
- Bulk Water Supply Leaks Management

**Challenges:**
- Implementation of the strategy

**Overall observations/recommendations:**
- The municipality must consider fast tracking the implementation of the overall water strategy

### 2.2.5.28 Landscaping, tree planting and beautification

**Strengths:**
- The Municipality is greening the main entrances to strategic areas such as towns and shopping centres.
- Planting trees and shrubs along the main roads.
- Turned a neglected space in front of the shopping mall at Tonga into a beautiful park. Trees and shrubs are planted next to the stream which supplies the park with water (Kobwa Park).
- Department of Economic Development Environment and Tourism (DEDET), Department of Agriculture, Forestry and Fisheries (DAFF) and trees for Africa are supporting the Municipality with additional trees which are planted in the villages with the communities.
- During 2012/13 the Municipality planted 1176 trees.
- During the first day of assessment, the panellists joined the Executive Mayor in planting the tree at KwaMhlushwa Community hall.

**Challenges:**
- The Municipality does not have its own nursery.

**Overall observations/recommendations:**
- The Municipality is advised to visit other Municipalities who have nurseries to get advices on good practices of running the nursery.
- Good practice in place and other municipalities can also learn something on greening.

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2.2.5.29 Does the Municipality have a policy on greening action

Strengths:
- Draft policy is submitted to the Council for approval
- While the Municipality waiting for the policy approval there is action on the ground
- The municipality plants the indigenous and fruit trees

Challenges:
- No Greening policy approved by Council

Overall observations/recommendations:
- Good initiatives in place in the absence of policy direction
- The municipality must consider fast tracking the development of a green policy to properly guide the municipal efforts around greening

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2.2.5.30 Tree planting in townships

Strengths:
- Trees planted during 2012/13 at public institutions and RDP houses

Challenges:
- No information on the types of trees planted at the RDP houses

Overall observations/recommendations:
- The municipality must consider planting more trees in RDP houses

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2.2.5.31 Invader plant control

Strengths:
- Nature Conservation in partnership with National Department is removing the invader plants.
- There is a program of removing alien plants (Expanded Public Works Programme) and municipal seasonal appointments.

Challenges:
- None

Overall observations/recommendations:
- The municipality appears to have alien vegetation situation under control.

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2.2.5.32 Public Participation and Community Empowerment

Strengths:
- The Environmental Centres under the Department of Economic Development, Environment and Tourism are assisting the Municipality by creating awareness to the community and school groups.
- Create employment for 140 people at Masibekela Recreational Park.
- Schools like Phambanisa Primary are well supported by the municipality.
- The Municipality initiated and participate in the environmental forums.
- Community structures like water caucus involved in actions & creating awareness on water.
- The traditional healers are also educated by water caucus to improve the use of natural resources sustainably.
- There is also a Komati catchment management forum that also actively facilitate community participation.

Challenges:
- None

Overall observations/recommendations:
- Reports of pollution of the streams going down as a results of ongoing engagements with traditional healers.
- Good practice in place and must be maintained.

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2.2.5.33 Environmental days and week activities

Strengths:
- The Municipality is partnering with the National and Provincial Environmental Departments to commemorate the Environmental days.
- The Municipality officials are arranging the prize giving ceremony for the Cleanest School Competition to be in June annually for alignment with World Environmental Day Celebrations.
- During Arbour Week the Executive Mayor leads the tree planting at the public institutions and communities.

Challenges:
- None

Overall observations/recommendations:
- Good practice in place and must be maintained

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2.2.5.34 Leadership and Institutional Arrangements

Strengths:
- The vision and mission of the Municipality emphasise sustainable development.
- The councillors awareness and active participation on greening
- The political championship of the mayor on greening issues was evident from her presence for the duration of the evaluation to give political insights and leadership on greening

Challenges:
- None

Overall observations/recommendations:
- Commitment to greening in the municipality is not sustainable as it is not supported by relevant policies but current leadership
- The Municipality must take advantage of the political leadership on greening by facilitating the fast tracking the adoption of relevant green policies and by laws by council

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2.2.5.35 Mechanisms to raise environmental awareness:

Strengths:
- Workshops with the health care workers are done to ensure that there is no mix with general waste.
- Community gatherings (ward committee)
- Education to government department e.g. South African Police Services
- Creating awareness together with other government department e.g. Department of Water Affairs, Disaster Management on issues of climate change
- Clean-up campaigns
- Partnership with neighbour countries such as Mozambique and Swaziland with the support of National Government aimed at raising awareness on topical environmental issues and promoting tourism around the Samora Machel Memorial site in Mbuzini where art made from the plane wreckage is on display

Challenges:
- None

Overall observations/recommendations:
- Making art from the plane wreckage and having the pieces on display at the memorial site is very educational and goes deep in demonstrating the extent to which we can link environmental awareness with heritage and history
- Good practice in place and must be maintained

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2.2.5.36 Bi-laws in place against environmental perpetrators

Strengths:
- Some bi-laws in place
- Plans to fast the adoption waste management bi-law

Challenges:
- No evidence of bi-law enforcement

Overall observations/recommendations:
- The Municipality must consider the fast tracking of bi-laws and enforcement

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2.2.5.37 Presentation

Strengths:
- The opening and welcome was done by the Mayor and clearly gave indication of what was to come and the municipal commitment to greening
- The presence and active participation of the Mayoral Committee members and the municipal manager
- The working relations between different municipal department is clear and this became evident during the presentation as they worked as a team and practically demonstrated the working relations between different departments
- Participation of the municipality’s key stakeholders such as the Non-Governmental Organisations, volunteers, District and Provincial government
- Performance of environmental relevant piece by learners from a local primary school
- Display and exhibition of art from waste and other locally made material

Challenges:
- None

Overall observations/recommendations:
- Very good practice in place and must be maintained

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2.2.5.38 General observations of the Municipality

Areas of Strength:
- Strategic location next to Kruger National Park and overall natural resource base of the municipality
- Political leadership and champion of greening by the Mayor
- Good working relations with key stakeholders such as Non-Governmental Organisations and other spheres of government
- Cross border municipality and exposure to best practices from neighbouring countries whilst also spreading some good practices beyond our borders
- The active participation of the mayoral committee members throughout the evaluation
- Support and endorsement of green building practices by private developers
- Linking of environmental awareness with history by making art from waste which is on display at the Samora Machel Memorial

Areas of Challenge:
- The absence of some relevant policies to support greening
- Poor revenue base and payment for services
- The spread and number of villages within the municipal area making service delivery expensive and difficult at times
- Ageing infrastructure and fleet
- No recycling facility or buy back centre supported by the municipality operationally
- Reliance on stakeholders for donation of trees

Recommended Action:
- The municipality must consider fast tracking the development and adoption of relevant green policies
- The Municipality must consider developing its own nursery or support locals to start one thereby creating local demand and supply for plants
- The municipality must fast track its recycling efforts and directly contribute to the development and growth of recycling in the municipal area
- The municipality must consider investigating possible models of supporting locals to commercialise some of the art from waste projects and other green products produced by locals as part of growing the green economy
-
2.2.6 Drakenstein Local Municipality

Waste Management

2.2.6.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Integrated Waste Management Plan (IWMP) is in place and very effective in the upmarket.
- Dedicated capital budget allocation.
- 98% completion on action items.
- Monthly evaluation meetings with stakeholders and Waste Management Consultant.

Weakness:
- Pockets of illegal dumping and littering were observed in the townships.

Overall observations/recommendations:
- The IWMP is being implemented and monitored well, but municipality should strengthen work in the townships.

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2.2.6.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- The municipality did not clearly understand what needs to be done to avoid waste generation. This has been illustrated in their IWMP.
- The IWMP indicate that education and awareness is the only tool that can assist the municipality in minimising waste generation.

Challenges:
- The municipality is still planning to implement education and awareness programme with regard to waste avoidance.

Overall observations/recommendations:
- Education and awareness programme on waste avoidance should be included in the IWMP and implemented.

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2.2.6.3 What does the municipality do to re-use & recycle waste

**Strengths:**
- Material resorted and recycling at the Municipal Recovery Facility (MRF).
- The public is handed out free clear bags once a week and the recycling material are collected with the weekly refuse collection.
- Material distribution to the recycling companies.
- Appointment of contractor to manage recycling.
- Municipal Office recycling initiative,
- Composting at the Municipal Recovery site.

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2.2.6.4 Waste Disposal Facilities

**Landfill sites**

**Strengths:**
- Proper access control with direction signs.
- The Site is fenced.
- Weighbridge is available and managed.
- Covering is done daily.
- No salvaging takes place at the landfill.
- Dedicated space for burial of dead animals at the site.
- Lifespan of the site is until 2018, plans for regional site and waste to energy.

**Challenges:**
- Poor covering was observed.

**Overall observations/recommendations:**
- The municipality must ensure that enough cover material is used on the site

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2.2.6.5 Storm water management
   Leachate management
   Monitoring activities

Strengths:
- Storm water channels in place.
- Leachate dam was observed.

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2.2.6.6 Transfer Stations

Strengths:
- Proper access control.
- Weighbridge on site to record stats of incoming and out-going waste and keeping proper records of recycled materials.
- Transfer station is fenced.
- No bad odours.
- No salving takes place on the site.
- Non-recyclable waste is then compacted and transported to Wellington Landfill facility.

Challenges:
- Electronic waste [CDs and DVDs] were observed during assessment.

Overall observations/recommendations:
- Proof of external audit report for these two sites should be kept and submitted when needed

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2.2.6.7 Drop-off areas

Strengths:
- Garden refuse, builder’s rubble and recyclable waste can be dropped at these facilities.
- The drop-offs visited by the panellists were well managed and tidy.
- A waste calculator is introduced at drop-off facilities.

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2.2.6.8 Medical waste management

Strengths:
- Medical waste is not dealt with by the Municipality but by the institutions.
- If such is found at disposal facilities a specialist is called in to attend to it.

Challenges:
- Electronic waste observed at the transfer station visited by the panellists.
- The municipality is not monitoring the management of hazardous waste within their jurisdiction

Overall observations/recommendations:
- The Municipality must develop a plan to monitor hazardous waste management and keep record thereof

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2.2.6.9 General cleanliness in town

Strengths:
- The towns are generally clean with refuse receptacles placed strategically.
- Collection schedule ranges from once per week to twice per week during peak period.
- Businesses are encouraged to clean the area in front of their businesses.
- Taxi associations are encouraged to keeping taxi ranks clean.

Overall observations/recommendations:
- The towns are generally clean.

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2.2.6.10 General cleanliness of residential areas

Strengths:
- Generally clean residential areas in town with receptacle placed strategically.

Challenges:
- Pockets of illegal dumping and random litter in open spaces and streams in townships.
- There is a lack of ownership of residents to maintain hygiene conditions.
- Illegal dumping is the biggest concern in townships.

Overall observations/recommendations:
- The residential areas in the upmarket are clean when townships are faced with challenges of illegal dumping and random littering.

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2.2.6.11 General cleanliness of industrial areas

Strengths:
- Generally clean.
- Some industries place great emphasis on beautifying their entrances and verges.

Challenges:
- None

Overall observations/recommendations:
- There are little heavy industries with more wineries.

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2.2.6.12 Education and awareness programmes about waste

Strengths:
- Exhibitions at libraries, malls and main entrances to municipal facilities to celebrate the Annual Waste Week.
- Conducting competitions in line with the municipals slogan on waste (Slogan/Poster).
- The use of local radio talks are key in the promotion of the slogan used during the Waste Week.
- Publishing of recycling statistics in the local newspaper and to Council.
- Schools are also involved through tours to solid waste facilities.
- Involvement of the Expanded Public Works Programme also promote awareness and education in 11 zones across the municipality.

Challenges:
- None

Overall observations/recommendations:
- Strengthen awareness and education in townships and formalise the relationships between yourselves and the grass roots champions in order to avoid high expectations, entitlement and conflicts between municipality and the grass root champs.

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2.2.6.13 Energy Efficiency and Conservation

Strengths:
- Support for the first green building in Drakenstein, the Cecilia Square Office Park Development.
- The fitting of approximately 600 houses were fitted with solar powered geysers.
- Development of a green building manual
- Development of a commitment form for all new electrical connections.

Challenges:

Overall observations/recommendations:

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2.2.6.14 What is the Municipality doing to reduce their carbon footprint

Strengths:
- Capturing of methane gas at the Waste Water Treatment Works (WWTW) in Paarl.
- Vehicle tracking devices.
- All municipal vehicles and fleet are fitted with tracking devices (C-Track).
- The use of small fuel burning equipment for park maintenance projects such as chainsaws, weed eaters, lawnmowers etc.
- Placement of recycling bins in all passages to promote office paper recycling.
- Replacing inefficient lights in municipal buildings.
- Light emitting diode (LED) traffic lights.
- Fitting of traffic signal lights with efficient Light emitting diode (LED) fittings.
- Installation of high pressure sodium street lights to replace mercury vapor street lights.

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2.2.6.15 Energy Audits

Strengths:
- Audits have been carried out at three municipality buildings.
- Switch off the air conditioning system during the winter season of 2013.

Challenges:
- Energy audit conducted is not formal, it does not clearly indicate how much energy is conserved by energy savings programmes initiated or implemented.

Overall observations/recommendations:
- Formal energy audit must be conducted.

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2.2.6.16 Awareness

Strengths:
- Partnership with Eskom to raise awareness through exhibitions at the Paarl Mall.
- Awareness is done on energy saving mechanism through the use of pamphlets.

Overall observations/recommendations:
- A formal education and awareness strategy on energy efficiency should be developed and implemented.

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2.2.6.17 Strategy

Strengths:
- Planning to develop an energy policy.

Challenges:
- The municipality has neither plan nor a strategy.

Overall observations/recommendations:
- Develop an energy efficiency strategy

2.2.6.18 How do the municipality deal with the management of mercury

Strengths:
- Used bulbs are collected and temporary stored in drums at the transfer station for safe disposal.
- The contractor collects the full drums and safely disposes them at the Vissershok Landfill facility.

Challenges:
- The municipality did not submit record of safe disposal certificate for hazardous waste.

Overall observations/recommendations:
- Record of safe disposal certificate should be kept and submitted when required.

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2.2.6.19 Water Management and Conservation

Strengths:
- Five water schemes have Blue drop status.

Challenges
- None

Overall observations/recommendations:
- The municipality know what their water status is and are hands on

2.2.6.20 Does the municipality have a proof of what the water status is

Strengths:
- The municipality has proof of their green drop status.

Challenges:
- Not awarded the green drop status

Overall observations/recommendations:
The WWTW visited was not well maintained and was operating well.

No  Yes
2.2.6.21 Water management in Municipal buildings

**Strengths:**
- Leak detection /repair.
- Refurbishment/replacement of network infrastructure.
- Promotion of water saving devices.
- Pressure Management/Internet Based Systems.
- Metering of all unmetered water connections including parks, gardens and public open spaces & replacement of water meters.

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2.2.6.22 Water management in parks and gardens

**Strengths:**
- Promote water wise gardens.

**Challenges:**
- Watering during midday was observed during assessment.

**Overall observations/recommendations:**
- Need to develop a formal plan for management of water in parks and gardens

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2.2.6.23 Does the Municipality do water audits

Strengths:
- Water audit conducted.

No  Yes

2.2.6.24 Sewer management

Strengths:
- WWTW Operations and Maintenance
- Contingency Plans and Backup Equipment
- Unblocking of blocked sewers

Challenges:
- None of their plant has obtained green drop certificates.
- Use portable water for watering grass long after 10h:00 at the plant.

Overall observations/recommendations:

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2.2.6.25 Reuse of water – use of Grey Water and Black Water

**Strengths:**
- Using grey water for irrigating a golf course in Wellington.

**Challenges:**
- Use of portable water for watering the grass long after 10h:00 at the plant.

**Overall observations/recommendations:**
- The municipality must consider rolling out of grey water reuse to all its packs and neighbouring farms.

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2.2.6.26 Water awareness actions by the Municipality

**Strengths:**
- Increased public awareness community posters, signage, and leaflets.
- Celebration of the Water Week.
- Conduct competitions for schools.
- Use of local radio to promote water awareness.

**Overall observations/recommendations:**
- There is an opportunity for municipality to increase public awareness through partnership with other stakeholders.

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2.2.6.27 Water Conservation Strategy / Plan

Strengths:
- Water Demand Management strategy available.

Challenges:
- No water conservation strategy, only a working document.

2.2.6.28 Landscaping, tree planting and beautification

Strengths:
- Greening of town entrances, islands and verges.
- Municipal has 217 Parks.
- Municipal Nursery
- Plant decorations at municipal buildings, libraries, etc.
- Greening of sport fields and cemeteries.

Overall observations/recommendations:
- There is a lot of greening project taking place.

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2.2.6.29 Do the municipality have a policy on greening actions?

Strengths:
- Planting and Maintenance Programme in place.
- Use of water wise vegetation.
- Tree Planting Plan in place.
- Greening plan in place.
- GPS mapping & GIS database of street trees.

Challenges:
- No greening policy available.

Overall observations/recommendations:
- Ensure that greening actions are incorporated in to the planned greening policy.

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2.2.6.30 Tree planting in townships

Strengths:
- Planting of 539 trees at Dromedaries.

Overall observations/recommendations:
- Develop a greening policy that will guide the municipality greening actions.

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2.2.6.31 Invader plant control

**Strengths:**
- Partnered with Working for Water (National and Provincial) on weed busting.

**Challenges:**
- No proper plan for addressing the invasive species

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2.2.6.32 Public Participation and Community Empowerment

**Strengths**
- Partnership with NGOs, CBOs and associations e.g. University of Stellenbosch, Afriplex, Wellington Beautification Committee, Paarl Horticultural Society etc.
- Conducting Youth Expo’s
- Use of Arts & Crafts in the park
- Outdoor classrooms for schools
- Cleaning our Parks & Recycling with schools

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2.2.6.33 Environmental days and week activities

Strengths:
- Annual Arbor Week & Youth Conference in collaboration with Cape Winelands District Municipality

Challenges:
- No mention of other calendar days and community involvement.

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2.2.6.34 Leadership and Institutional Arrangements

Strengths:
- The municipality has necessary documents

Challenges:
- No clear mission and vision on greening.
- Some strategies and policies are not yet developed.

Overall observations/recommendations:
- Need to develop all environmental strategies and policies.

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2.2.6.35 Mechanisms to raise environmental awareness:

Strengths:
- Use of pamphlets and local radio.
- Conducting competitions.
- Branding of waste receptacles and Waste trucks.

Challenges:
- Poor involvement of communities.

Overall observations/recommendations:
- Develop an environmental education and awareness plan.

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2.2.6.36 Bi-laws in place against environmental perpetrators

Strengths:
- Dealt with 27 environment related complaints and issued eight compliance notices.
- Establishment of an Environmental Portfolio Committee, it operates within Executive Mayoral Committee.

Challenges:
- No mentoring of other environmental bi laws e.g. waste bi law in townships.

Overall observations/recommendations:
- Need to enforce all bylaws.

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2.2.6.37 Presentation

**Strengths:**
- The municipality was prepared.
- Presentations were clear and relevant to the Greenest Municipality Competition.

**Challenges:**
- Lack of political buy-in and support.
- Lack of Non-Governmental Organisations, Community Based Organisations and Councillors.

**Overall observations/recommendations:**
- The municipality was well prepared for the assessment however more information must be made available to back up the presentation.

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2.2.6.38 General observations of the Municipality

**Areas of Strength:**
- Integrated Waste Management Plan is in place and very effective in the upmarket.
- Dedicated capital budget allocation.
- 98% completion on action items.
- Monthly evaluation meetings with stakeholders and Waste Management Consultant.
- Garden refuse, builder’s rubble and recyclable waste can be dropped at these facilities.
- The drop-offs visited by the panellists were well managed and tidy.
- A waste calculator is introduced at drop-off facilities.
- Five water schemes have Blue Drop status.
- Pressure Management/Internet Based Systems.
- Metering of all unmetered water connections including parks, gardens and public open spaces & replacement of water meters.
- Use of water wise vegetation.
- Tree Planting Plan in place.
- Greening plan in place.
- GPS mapping & GIS database of street trees.
Areas of Challenge:

- Lack of political buy-in and support.
- Lack of Non-Governmental Organisations, Community Based Organisations and Councillors.
- Poor monitoring of environmental bi-laws e.g. waste bi-law in townships.
- No clear mission and vision on greening.
- Some strategies and policies are not yet developed.
- No proper plan for addressing the invasive species.

Recommended Action:

- The Integrated Waste Management Plan is being implemented and monitored well, but the municipality should strengthen work in the townships.
- Education and awareness programme on waste avoidance should be included in the IWMP and implemented.
- The residential areas in the upmarket are clean when townships are faced with challenges of illegal dumping and random littering.
- Strengthen awareness and education in townships and formalise the relationships between yourselves and the grass roots champions in order to avoid high expectations, entitlement and conflicts between municipality and the grass root champs.
- A formal education and awareness strategy on energy efficiency should be developed and implemented.
- There is an opportunity for the municipality to increase public awareness through partnership with other stakeholders.
- Ensure that greening actions are incorporated in to the planned greening policy.
- The municipality must consider rolling out of grey water reuse to all its packs and neighbouring farms.
2.2.7 Emfuleni Local Municipality

Waste Management

2.2.7.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Integrated Waste Management Plan (IWMP) is in place.

Challenges:
- Proof of IWMP not provided
- IWMP not reviewed.
- IWMP was developed before the Waste Act and the NWMS (2008)

Overall observations/recommendations:
- Challenges with illegal dumping and littering are evident to the need for an urgent review of the IWMP.
- The Municipality has its own IWMP developed in 2010 and should pay more attention to implementation
- The Municipality needs to urgently review the IWMP in line with the NWMS and the Waste Act.
2.2.7.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- We observed the presentations given to the panellists were printed on both sides to avoid the use of more paper.
- The POEs and other reference materials were provided in disc form to avoid wasteful paper use.
- Water was served in jars rather than serving bottled water to avoid unwanted waste generation.

Challenges:
- Municipality seem to be confusing minimisation and prevention of waste generation with recycling and reuse.
- Lack of strategy to minimise and prevent waste generation.

Overall observations/recommendations:
- The municipality has a big staff roll and needs to develop a waste prevention and minimisation plan to promote office recycling, reuse, repair and conserve in all municipal offices.

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2.2.7.3 What does the municipality do to re-use & recycle waste

Strengths:
- The Municipality supports the Buyisa e Bag Buy Back Centre in Evaton.
- Composting of green waste.
- Purchasing and dedication of six trucks to promote recycling.
- Assistance to 350 recyclers.
- Partnership with Vereeniging Toyota to promote good waste management practices. (Sorting at source and oil recycling).
- Workshop for recyclers conducted regularly.

Challenges:
- Illegal dumping and littering is a huge problem.
- Poor control and management of reclaimers at the landfill visited was observed by the panel.

Overall observations/recommendations:
- The municipality must implement strong controls measures at the landfill site visited by the panel in order avoid the health risks faced by the throng of reclaimers.
- Promote and implement sorting at source to include other businesses and to households.

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2.2.7.4 Waste Disposal Facilities

Landfill sites

Strengths:
- The landfill is licensed.
- Municipality manages its own landfill site.
- Refuse is compacted and covered daily.
- Records of waste received are kept.
- Use of builder’s rubble as cover material.
- The municipality is having three operational Landfill sites and one closed.
- Landfill sites airspace is measured regularly.
- Has its own landfill compactor available.

Challenges:
- Poor access control and vandalised fence.
- Covering of waste not effective.
- Information board at the entrance does not comply with the minimum requirements.
- Uncontrolled salvaging at the landfill site which pose a health and safety risk.
- Windblown litter was observed.

Overall observations/recommendations:
- Municipality must implement its landfill management plan and apply strict control measures at the site.
- The site is an eye sore, a health and safety hazard, the municipality must urgently deal with access control and management of reclaimers.
- The information board at the entrance should comply with the minimum requirements for waste disposal by landfill, latest edition.
- Windblown litter removal and proper covering of waste must be done daily and regularly at the site.

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2.2.7.5 Storm water management

Leachate management

Monitoring activities

Strengths:
2. Monitoring boreholes were said to be available.

Challenges:
3. Storm water management channels were filled up with waste.
4. No leachate dam observed.

Overall observations/recommendations:
• The municipality needs to make sure that the storm water management channels are free from waste and leachate is controlled.

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2.2.7.6 Transfer Stations

Strengths:
• The municipality alluded to the panel that they have four transfer stations.

Challenges:
• No single transfer station was visited.

Overall observations/recommendations:
• There was a community protest at Sebokeng area,

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2.2.7.7 Drop-off areas

Strengths:
- Garden waste drop off in place.

Challenges:
- Poorly managed site.
- Mixed waste is dropped off.
- Vandalised fence.
- Windblown litter was observed.

Overall observations/recommendations:
- Municipality must beef-up its management and control at the site.

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2.2.7.8 Medical waste management

Strengths:
- Provides advice on management of Health Care Residue Waste (HCRW) to private companies.
- Environmental Health Department is responsible for monitoring of Health Care Residue Waste management.
- Education and awareness for entire public with regards to management of Health Care Residue Waste.

Challenges:
- Poor record keeping by private Health Care Residue Waste generators.
- Non-compliance with legislation.
- Some of private Health Care Residue Waste generators have no service provider for management of their Health Care Residue Waste (Funeral undertakers).
- Untraceable illegal dumping of Health Care Residue Waste.

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2.2.7.9 General Cleanliness in town

Strengths:
- The CBD area is relatively clean receptacles placed at strategic points.

Challenges:
- The regional taxi rank at the Vereeniging station is an eye sore with random littering and dumping.
- Poor control of hawkers, taxi associations and negative public perceptions towards cleanliness and hygiene.

Overall observations/recommendations:
- Municipality must monitor the taxi rank and make sure the Service Level Agreements between themselves, the taxi associations and the district are adhered to.
- Municipality must also consider a plan to sensitise and raise public awareness at public places, the Station being one of them.

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2.2.7.10 General cleanliness of residential areas

Challenges:
- The Sharpville Massacre Tour Route was an eye sore with littering and dumping along the route.
- All townships visited by the panel had random litter and illegal dumps.

Overall observations/recommendations:
- Municipality must improve waste management in townships.
- The Sharpville tour route has a huge job creation potential and needs to be promoted and kept clean.

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2.2.7.11 General cleanliness of industrial areas

Strengths:
- The industrial areas visited and seen by the panel were relatively clean.
- The adoption of pavements and adjacent spaces by some industries is a commendable act.

Overall observations/recommendations:
- Industries areas are generally clean and green.

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2.2.7.12 Education and awareness programs about waste

Strengths:
- Talks on the local radio to educate and raise awareness.
- The use of the BkB competition.
- Participation in the National Clean-up day.
- Community clean up campaigns.
- Promotion and support of community green projects through the BkB.

Challenges:
- No systematic environmental education and awareness plan.

Overall observations/recommendations:
- The municipality must consider establishment of ward-based environmental forums who will act as community based environmental ambassadors.
- Municipality must develop an environmental awareness and education plan.

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### 2.2.7.13 Energy Efficiency and Conservation

**Strengths:**
- Installation of solar street lights in Evaton.
- Installation of 1200 solar geysers.
- Installation of solar traffic lights in Vereeniging, Vanderbiljpark and Sebokeng.
- Retrofitting of Street lights from 125w to 70w.

**Overall observations/recommendations:**
- The municipality is advised to develop an energy efficiency and conservation strategy.
- Municipality must roll out its solar geyser and solar streetlights project to all other areas across the municipality.

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### 2.2.7.14 What is the Municipality doing to reduce their carbon footprint

**Strengths:**
- Promotion of tree planting to reduce carbon footprint.
- Partnership with Toyota Vereeniging to recycle used oil.
- Testing of vehicles by law enforcement officers.
- Air quality management plan available and emphasises planting of trees.

**Overall observations/recommendations:**
- The partnership with Toyota should be rolled out to more industries and business to promote the Public Private Partnership (PPP) and the Green Economy.

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2.2.7.15 Energy Audits

Strengths:
- Energy audits carried out.

Overall observations/recommendations:
- The municipality needs to improve and expand its audit starting with own municipal buildings.
- Municipality needs to conduct energy audit in all municipal electrical equipment.
- The municipality must utilise the findings of the audits to develop a plan for energy efficiency and conservation.

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2.2.7.16 Awareness

Strengths:
- Participation in the BkB.
- Public meeting done per ward.
- Brochure developed and issued to the public.

Challenges:
- Lack of a comprehensive awareness and education plan.

Overall observations/recommendations:
- Need to develop an awareness and education plan.

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2.2.7.17 Strategy

Strengths:
- Energy Conservation Strategy in place.

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2.2.7.18 How does the municipality deal with the management of mercury

Strengths:
- Used bulbs are crushed and disposed of at a hazardous landfill site

Overall observations/recommendations:
- Develop an awareness and education plan/campaign on the management of mercury-handling and disposal.
- Provide proof of safe disposal certificate.

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2.2.7.19 Water Management and Conservation

Strengths:
- Blue Drop in place.
- Portable water is handled by Rand Water.

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2.2.7.20 Does the municipality have a proof of what the water status is

Strengths:
- The municipality has proof of their green drop status.

Challenges:
- Not awarded the green drop status

Overall observations/recommendations:
- The WWTW visited was not well maintained and was operating above its design capacity and over flowing.

| No | Yes |

2.2.7.21 Water management in municipal buildings

Strengths:
- No water wastage observed at the municipal offices visited during the evaluation.

Overall observations/recommendations:
- The municipality must keep track of internal water use and consumption both in terms of Kilo litres and costs

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2.2.7.22 Water management in parks and gardens

Strengths:
- Agricultural farms and community food gardens are encouraged to use boreholes for irrigation.
- Removal of alien species.
- Fully metered parks in the eastern region.
- Planting of indigenous trees.
- Pop up sprays are used to irrigate parks and gardens.
- Planting of water wise plants in the municipal offices.

Challenges:
- No use of grey water in parks.
2.2.7.23 Does the Municipality do water audits

Strengths:
- Regular water audits are carried out.

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2.2.7.24 Sewer management:

Strengths:
- Two recording softwares installed for and tracking of reported network problems.
- An emergency dam in place.
- Use of Telemetric system for monitoring of the level of pumps to reduce overflow.
- Standby generator available.

Challenges:
- Poorly maintained.
- Aged infrastructure
- Unskilled labour force.

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2.2.7.25 Reuse of water – use of Grey Water and Black Water

Strengths:
- Installation of a dedicated pipeline for reuse of black water by farmers.
- Developed a brochure for the public on the reuse of grey or black water.

Overall observations/recommendations:
- The municipality must consider the use of grey water on all its parks.

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2.2.7.26 Water awareness actions by the Municipality

Strengths:
- 60 public meetings.
- 22 education and awareness workshop with Phaphamang NGO.
- Cleaning of streams and rubble in streams.
- Door to door campaigns.
- Learner’s edu-tours to Rand Water Portable water Treatment Plant.
- Runs a call centre.
- Celebration of all water calendar events: wetlands day, water week and sanitation week.
- Customer survey campaigns.
- Stakeholder forums.

Challenges:
- No specific water awareness and education plan.

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2.2.7.27 Water Conservation Strategy / Plan

Strengths:
- Available.

Overall observations/recommendations:
- It is advised that the municipality must develop water conservation and demand management strategy.

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2.2.7.28 Landscaping, tree planting and beautification

Strengths:
- The construction of Masibekela Recreation Park is commendable.
- Support for the community park visited by the panel.
- Donations of trees to schools.
- Beautification of entrances in partnership with Indalo Yethu.
- Municipal own nursery.
- Planted 250 trees during 2013 Arbor week.

Challenges:
- Vandalism of trees and entrances.

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2.2.7.29 Does the Municipality have a policy on greening actions

Strengths:
- Draft greening policy developed.

Challenges:
- Greening policy not yet approved.

Overall observations/recommendations:
- Municipality needs to complete its strategy and start implementing it.

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2.2.7.30 Tree planting in townships

Strengths:
- Planting of 60 trees with the MMC at Tshepiso during Arbor Week and the distribution of another 140 to communities.

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2.2.7.31 Invader plant control

Strengths:
- Use of EPWP to eradicate invader plants.
- Support from office of the Mayor.
- Support for SMMEs with wood to make woodwork.

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2.2.7.32 Public Participation and Community Empowerment

Strengths:
- Annual Integrated Development Plan Public consultation
- Monthly Ward committee meeting
- Establishment of Environmental forums
- Ward Public meeting
- Knock and drop (letters)
- Agricultural cooperatives
- Annual people assembly for ward committee and stakeholders
- Support for community parks
- Cleaning of rivers
- Schools and Ward involvement in the BkB
Challenges:
• Vandalism of trees
Overall observations/recommendations:
• Not enough community empowerment projects seen
• Need to develop a clear plan on how to empower the communities

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### 2.2.7.33 Environmental days and week activities

**Strengths:**
- The municipality works closely with the school through the BkB. (Cleanest School Competition).
- Celebration of environmental calendar days.

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2.2.7.34 Leadership and Institutional Arrangements

Strengths:
- Vision and mission in place, relevant and in line with the greening agenda.
- Environmental plans and strategies in place.
- Organogram with strong political support clearly articulated.
- Establishment of community working groups i.e. water, energy and parks committees.

Challenges:
- Some policies and strategies are still in drafts.

Overall observations/recommendations:
- Municipality must submit all draft strategies and plans to council for approval.

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2.2.7.35 Mechanisms to raise environmental awareness

Strengths:
- Support and participation in the BKB
- Roll-out of Cleaner Air household Energy Concepts (Basa Njengo Magogo)
- Use of local Radio Station (Vaal University of Technology Community Radio)
- Ward committee meetings
- Use of the knock and drop campaign
- The municipality conducts clean-up campaigns with the local community.

Overall observations/recommendations:
- Municipality must develop a formal education and awareness program to include the broader community especially the youth and women.

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2.2.7.36 Bi-laws in place against environmental perpetrators

Strengths:
- Sector bi-laws in place.
- The South African Police Services and traffic officers are the enforcers of the bi-laws.

Challenges:
- Illegal dumping.

Overall observations/recommendations:
- Bi-laws developed before the waste Act (2005).
- Stray animals were observed by the panel.

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2.2.7.37 Presentation

Strengths:
- Panel was well representative, reflecting the Executive Mayor, MMC for Environment and her team.
- The provinces support is commendable.
- The presentations made to the panel were relevant.

Challenges:
- Community, NGOs, Councillors, Schools and CBOs were absent.
- Lack of readiness by some presenters.

Overall observations/recommendations:
- Municipality need to improve its community relations and engagements.

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2.2.7.38 General observations of the Municipality

Areas of Strength:
- Provides advice on management of Health Care Residue Waste to private companies.
- Education and awareness for entire public with regard to management of Health Care Residue Waste.

Areas of Challenge:
- Integrated Waste Management Plan not reviewed.
- Integrated Waste Management Plan was developed before the Waste Act and the National Waste Management Strategy (2008).
- Poor landfill management.
- The Sharpville Massacre Tour Route was an eye sore with littering and dumping along the route.
- All townships visited by the panel had random litter and illegal dumps.
- No systematic environmental education and awareness plan.
- No use of grey water in parks.
- Vandalism of trees and entrances.

Recommended Action:
- Challenges with illegal dumping and littering are evident to the need for an urgent review of the Integrated Waste Management Plan.
- The Municipality needs to urgently review the Integrated Waste Management Plan in line with the National Waste Management Strategy and the Waste Act.
- The municipality must consider prioritising waste minimisation and prevention.
- The municipality must do more to raise awareness and promote recycling.
- The municipality has a big staff roll and needs to develop a waste prevention and minimisation plan to promote office recycling, reuse, repair and conserve in all municipal offices.
- The municipality must implement strong controls measures at the landfill site visited by the panel in order avoid the health risks faced by the throng of reclaimers.
- Promote and implement sorting at source to include other businesses and to households.
- Municipality must implement its landfill management plan and apply strict control measures at the site.
- The municipality should consider measures for storm water control to avoid water pollution.
- The site is an eye sore, a health and safety hazard, the municipality must urgently deal with access control and management of reclaimers.
- The information board at the entrance should comply with the minimum requirements for waste disposal by landfill, latest edition.
- Wind-blown litter removal and proper covering of waste must be done daily and regularly at the site.
2.2.8 Umzivumbu Local Municipality

Waste Management

2.2.8.1 Integrated Waste Management Plan in place or any waste management plan

Strengths:
- The Integrated Waste Management Plan (IWMP) is in place.

Overall observations/recommendations:
- The municipality’s expectation on the District IWMP
- The Municipality has its own IWMP developed in 2010 and should pay more attention to implementation

2.2.8.2 What does the municipality do to prevent and minimise waste generation

Strengths:
- No information presented in this regard

Challenges:
- Reference to waste recycling as waste prevention and minimisation

Overall observations/recommendations:
- The municipality must consider prioritising waste minimisation and prevention

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2.2.8.3 What does the municipality do to re-use & recycle waste

**Strengths:**
- Material recovery and recycling at the Mount Frere Landfill site
- Waste separation at source
- Storage of recyclable for sale in bulk by members of cooperatives

**Challenges:**
- Recycling market not well developed

**Overall observations/recommendations:**
- The municipality must do more to raise awareness and promote recycling

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2.2.8.4 Waste Disposal Facilities

**Landfill sites**

**Strengths:**
- Landfill site licensed
- Fence and access control

**Challenges:**
- The weigh bridges on both landfill sites not working on the day of the site visit
- Use of inappropriate compaction machinery
- Windblown litter

**Overall observations/recommendations:**
- The municipality should consider regular maintenance of weigh bridge
- The solar panels used to power the weigh bridge stolen and the municipality can improve security to avoid similar accident in the future

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2.2.8.5 Storm water management

Leachate management

Monitoring activities

Strengths:
- GCB - sites with less requirements
Challenges: Storm water diverted to a river

Overall observations/recommendations:
- The municipality should consider measures for storm water control to avoid water pollution

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2.2.8.6 Transfer Stations

Strengths:
- Mapping of known illegal dumping spots
- Clearing of illegal dumping spots
Challenges:
- No transfer station

Overall observations/recommendations:
- The Municipality should consider turning some of the known illegal dumping spot into transfer stations

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2.2.8.7 Drop-off areas

Strengths:
- Mapping of illegal dumping spots
- Clearing of illegal dumping spots

Challenges:
- No drop off areas

Overall observations/recommendations:
- The Municipality should consider turning some of the known illegal dumping spot into transfer stations

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2.2.8.8 Medical waste management

Strengths:
- Private company contracted by the District collects from all health centres

Challenges:
- No information in relation to where and how the medical waste is disposed off

Overall observations/recommendations:
- The municipality should consider raising awareness on medical waste especially in relation to collection of medical waste at household level

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2.2.8.9 General Cleanliness in town

Strengths:
- Enough receptacles in towns and placed strategically

Challenges:
- Some pockets of littering and illegal dumping

Overall observations/recommendations:
- Generally clean and well maintained

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2.2.8.10 General cleanliness of residential areas

Strengths:
- Clean and well maintained
- Regular collection in urban areas

Challenges:
- No collection in rural areas

Overall observations/recommendations:
- The municipality should consider extending the service provision to rural areas

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2.2.8.11 General cleanliness of townships

Strengths:
- Regular collection conducted

Challenges:
- Illegal dumping

Overall observations/recommendations:
- The municipality should consider developing Drop off centres

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2.2.8.12 General cleanliness of industrial areas

Strengths:
- Low industrial

Challenges:
- Used oil from local mechanics on the ground

Overall observations/recommendations:
- Though the municipality has low industrial base priority should be given to cleaning small industrial areas that exists

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2.2.8.13 Education and awareness programs about waste

Strengths:
- Youth Jobs on Waste being used to raise awareness especially amongst the youth
- Two anti-litter campaigns being conducted annually

Challenges:
- Limitation of the awareness campaign in terms of content
- Availability and accessibility of various media for use by the Municipality

Overall observations/recommendations:
- The municipality must review their approach to environmental awareness with a view of developing capacity to address environmental education and awareness broadly

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2.2.8.14 Energy Efficiency and Conservation

Strengths:
- Installation of energy efficient lights with support from Department of Energy

Challenges:
- The Municipality has no license for electricity distribution and relies on Eskom
- No energy audit ever done to develop baseline information

Overall observations/recommendations:
- The municipality should consider conducting energy audit

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2.2.8.15 What is the Municipality doing to reduce their carbon footprint

Strengths:
- Draw inspiration from the COP17
- Participation in the District Climate Change vulnerability study
- Municipal fleet serviced in Kokstad (outside the municipal area being evaluated)

Challenges:
- No information on used oil

Overall observations/recommendations:
- The municipality should consider developing measures to deal with used oil within its boundaries

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2.2.8.16 Energy Audits

Strengths:
- Use of energy efficient light
- On-going installation of CFLs and recommendation to use them in all new buildings

Challenges:
- No energy audit

Overall observations/recommendations:
- Roll out energy audits in municipal buildings whilst beginning to plan and budget for audit reports recommendations implementation

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2.2.8.17 Awareness

Strengths:
- None

Challenges:
- Eskom is the distributor in the area

Overall observations/recommendations:
- The municipality has a backlog on electrification and plans to use the soon to start solar project to further raise awareness
- The municipality should consider working closely with Eskom in relation to raising awareness in areas that are already connected to the grid

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2.2.8.18 Strategy

Strengths:
- Recognition of the government commitment

Challenges:
- Rural municipality with limited capacity

Overall observations/recommendations:
- The municipality should consider developing a strategy

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2.2.8.19 How does the municipality deal with the management of mercury

Strengths:
• None

Challenges:
• No designated area for handling of mercury waste
• No monitoring of mercury waste

Overall observations/recommendations:
• The municipality must consider allocating resources for the separation of mercury
• The municipality must monitor the management of mercury

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2.2.8.20 Water Management and Conservation

Does the municipality have a proof of what the water status is? Green or Blue Drop status? Strengths:
• Water harvesting
• The use of Jojo tanks
• District function

Challenges:
• Flood area
• Limited access to piped water

Overall observations/recommendations:
• The municipality has the previous year’s results and still await announcement for the latest results by the Minister

No  Yes
### 2.2.8.21 Water management in Municipal buildings

**Strengths:**
- No information provided

**Challenges:**
- No information provided

**Overall observations/recommendations:**
- The municipality should consider introducing measures to conserve water

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### 2.2.8.22 Water management in parks and gardens

**Strengths:**
- No information provided

**Challenges:**
- No information provided

**Overall observations/recommendations:**
- No evidence of water conservation in parks and gardens

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2.2.8.23 Does the Municipality do water audits

Strengths:
- No information provided

Challenges:
- No reports or evidence given

Overall observations/recommendations:
- The municipality’s should consider working closely with the District and ensure water audits are conducted within its municipal area

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2.2.8.24 Sewer management

Strengths:
- District function

Challenges:
- Housing development that grew

Overall observations/recommendations:
- The municipality’s water department must always make information available to other departments for sharing with other stakeholders

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2.2.8.25 Reuse of water – use of Grey Water and Black Water.

**Strengths:**
- No information provided

**Challenges:**
- No information provided

**Overall observations/recommendations:**
- The municipality’s water department must always make information available to other department for sharing with other stakeholders

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2.2.8.26 Water awareness actions by the Municipality

**Strengths:**
- Some information on water in generic environmental awareness efforts by the municipality
- The use of Jojo tanks points to some action on awareness

**Challenges:**
- No information provided

**Overall observations/recommendations:**
- The municipality’s water department must always make information available to other department for sharing with other stakeholders
- The use of Jojo tanks by households and business alike is common and the municipality can facilitate easy access for the benefit of the community

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2.2.8.27 Water Conservation Strategy / Plan

Strengths:
- No information provided

Challenges:
- No information provided

Overall observations/recommendations:
- The municipality’s water department must always make information available to other department for sharing with other stakeholders

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2.2.8.28 Landscaping, tree planting and beautification

Strengths:
- Prioritisation of previously disadvantaged areas in greening
- Involvement of community members in greening and maintaining the parks
- Beautification of entrances
- Turning dumping spots into parks

Challenges:
- Stray animals vandalise trees and over grazing
- Vandalism of trees by locals
- Budget limitation
- Drought

Overall observations/recommendations:
- The municipality should also consider growing the green economy by encouraging locals to set up trees planting/nursery cooperatives
2.2.8.29 Do the municipality have a policy on greening actions

Strengths:
- Climate vulnerability study supported by the district with multi stakeholder participation
- Greening projects being implemented

Challenges:
- There is no greening policy
- Lack of greening strategy and plan

Overall observations/recommendations:
- The municipality must consider shaping the climate change vulnerability study to integrate the greening agenda and thereby have the strategy respond to the challenges of climate change and greening in general

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2.2.8.30 Tree planting in townships

Strengths:
- Tree planting in townships taking place with preference for big trees
- Distribution of trees during environmental days

Challenges:
- Tree planting not linked to existing RDP houses

Overall observations/recommendations:
- The municipality should consider tree planting in all RDP houses

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2.2.8.31 Invader plant control

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<td>• Involved in working for water and wetlands</td>
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<td>• Poor coordination of alien vegetation eradication programmes</td>
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<th>Overall observations/recommendations:</th>
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<tr>
<td>• There is an urgent need to develop a plan to better coordinate efforts around eradicating alien vegetation to avoid duplication</td>
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2.2.8.32 Public Participation and Community Empowerment

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<td>• The use of ward committees to facilitate community participation</td>
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<td>• Reflection on engaging schools during presentations</td>
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<thead>
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<td>• No evidence of public participation in informal areas</td>
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<th>Overall observations/recommendations:</th>
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<tr>
<td>• Some good practices driven by public concern and the municipality can do more to coordinate and support community efforts</td>
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2.2.8.33 Environmental days and week activities

Strengths:
- Celebration of environmental calendar days
- Involvement of schools

Challenges:
- No monitoring of annual environmental days impact

Overall observations/recommendations:
- Development of continuous programmes to monitor and evaluate the impact of the year on year celebrations of environmental calendar days

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2.2.8.34 Leadership and Institutional Arrangements

Strengths:
- The vision is to be the best run municipality in South Africa and their mission is to properly plan and deliver quality and sustainable services to improve the socio-economic status within the broader Umzimvubu Community.

Challenges:
- The vision appears not well communicated

Overall observations/recommendations:
- The vision and mission are well crafted and more needs to be done to align this with daily activities in the municipality

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2.2.8.35 Mechanisms to raise environmental awareness:

**Strengths:**
- Use of different media

**Challenges:**
- Not sufficient evidence presented to demonstrate the applied mechanism to raise awareness

**Overall observations/recommendations:**
- The municipality must also consider developing environmental education centre that can be easily accessible by locals to learn more about the environment

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<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

2.2.8.36 Bi-laws in place against environmental perpetrators

**Challenges:**
- No evidence of fines/punishment given and or paid

**Overall observations/recommendations:**
- There is an urgent need for the municipality to develop relevant bi-laws and ensure enforcement

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<th>1</th>
<th>2</th>
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<th>5</th>
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<tbody>
<tr>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>
2.2.8.37 Presentation

Strengths:
- The municipality was well prepared for the presentation particularly in relation to waste, energy and climate change with the assistance of the district.

Challenges:
- The presentation did not address all the key elements as outlined in the evaluation form.
- Absence of senior officials to give broader perspective.

Overall observations/recommendations:
- The presentation lacked some key information pertaining to greening and baseline information that guides interventions.
- The municipality must consider involving key stakeholders such as councillors, Non-Governmental Organisations, etc. in future presentation to Greenest Municipality Competition panellists.
- In future the municipality must consider assigning more of its own personnel and only use the district for moral support during presentations.

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<td>Good</td>
<td>Very Good</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

2.2.8.38 General observations of the Municipality

Areas of Strength:
- High level of households and community driven initiatives around greening.
- High demand and use of Jojo tanks for rain water harvesting is a very good practice.
- Active participation in the District Climate Change vulnerability study.
- Community built bridge that links the village and town using scrap metals.

Areas of Challenge:
- Backlog in service delivery.
- Very low revenue base and payment for services.
- The capacity of the municipality and reliance on the District on core municipal functions.
- Integration of work between and across municipal sector departments.

Recommended Action:
- High level political commitment to greening by creating space for councillors to be more involved in greening projects thereby increase chances of resources allocation for greening.
- Facilitate easy access to green technologies such as Jojo tanks etc. by supporting locals to start green economy small enterprises for supply and repair.
- Site visit to best performing green municipalities for information sharing and peer review.
- Take advantage of the local conditions and increase community participation.
- Strengthen community initiatives such as the bridge that links the village and town.
ASSESSMENTS

The following schedule reflects the evaluation team’s assessments of the Metros and the Local Councils according to the GMC criteria as reflected in the score sheet. The numbers in the first column of the following table refer to the aspect assessment in the criterion. The score beneath reflected the name of each Metropolitan and/or Local government are the collective results from an objective assessment and evaluation of panelists. A scale of 1-5 as reflected in the score sheet was used.

The following criteria applied:

1. Poor conditions
2. Fair conditions
3. Good conditions
4. Very good conditions
5. Excellent conditions

Evaluation Scores and Results

Table 2: Metropolitan Council Evaluation Scores and Results

<table>
<thead>
<tr>
<th>PHYSICAL CATEGORY</th>
<th>Weights</th>
<th>City of Johannesburg</th>
<th>Nelson Mandela Bay</th>
<th>Buffalo City</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Waste Management</td>
<td>63</td>
<td>43</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>1.2 Energy Efficiency and Conservation</td>
<td>28</td>
<td>22</td>
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<td>6</td>
</tr>
<tr>
<td>1.3 Water Efficiency and Conservation</td>
<td>34</td>
<td>27</td>
<td>24</td>
<td>24</td>
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<tr>
<td>1.4 Landscaping, Tree planting and Beautification</td>
<td>20</td>
<td>14</td>
<td>8</td>
<td>10</td>
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<tr>
<td><strong>A Rating - Physical Category</strong></td>
<td><strong>145</strong></td>
<td><strong>106</strong></td>
<td><strong>72</strong></td>
<td><strong>67</strong></td>
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PRESENTATIONS

<table>
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<th></th>
<th>Weights</th>
<th>City of Johannesburg</th>
<th>Nelson Mandela Bay</th>
<th>Buffalo City</th>
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<tbody>
<tr>
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<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2.2 Public Participation and Community Empowerment</td>
<td>25</td>
<td>11</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2.3 Presentation</td>
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<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>B Rating- Presentations</strong></td>
<td><strong>45</strong></td>
<td><strong>22</strong></td>
<td><strong>14</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

| **Total Rating A and B** | **190** | **128** | **86** | **80** |

Evaluation Scores and Results

Table 3: Local Council Evaluation Scores and Results

<table>
<thead>
<tr>
<th>PHYSICAL CATEGORY</th>
<th>Weights</th>
<th>Mogalakwena</th>
<th>uMhlathuze</th>
<th>Nkomazi</th>
<th>Drakenstein</th>
<th>Emfuleni</th>
<th>uMzivumbu</th>
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<td>43</td>
<td>29</td>
<td>31</td>
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<tr>
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<td>18</td>
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<tr>
<td>1.3 Water Efficiency and Conservation</td>
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<td><strong>109</strong></td>
<td><strong>108</strong></td>
<td><strong>98</strong></td>
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<td><strong>132</strong></td>
<td><strong>129</strong></td>
<td><strong>124</strong></td>
<td><strong>118</strong></td>
<td><strong>110</strong></td>
<td><strong>77</strong></td>
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</table>
## RECOMMENDATIONS BY PANEL

Overall Summary of Metros and Local Municipalities ranked according to percentage and position

### Table 4: Metropolitan Category

<table>
<thead>
<tr>
<th>City</th>
<th>Final Score</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Johannesburg</td>
<td>128</td>
<td>1</td>
</tr>
<tr>
<td>Nelson Mandela Bay</td>
<td>86</td>
<td>2</td>
</tr>
<tr>
<td>Buffalo City</td>
<td>80</td>
<td>3</td>
</tr>
</tbody>
</table>

### Table 5: Local Municipality Category

<table>
<thead>
<tr>
<th>City</th>
<th>Final Score</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mogalakwena</td>
<td>132</td>
<td>1</td>
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<td>Nkomazi</td>
<td>124</td>
<td>3</td>
</tr>
</tbody>
</table>
Overall observations and recommendations

Metropolitan Municipalities

- The Metros were generally prepared for the evaluation and gave a good account of themselves. The experience of the old Metros was easy to see but the new kids on the block gave a good account of themselves when it comes to portable water provision. Water management seemed to be taken seriously by all Metros as the scores for blue and green drops show. Generally there is a need for more focus and effort to improve waste collection and management of landfills. City of Johannesburg is encouraged to share their knowledge in areas like energy management and waste management (more especially waste recycling) as they were the most impressive on the aspects of the evaluation.

- The exclusion of previous winners was a good initiative and we hope that the three current winners will have had an opportunity to win some much needed funds that will supplement their small budgets to ensure they improve on the service delivery to their citizens.

- The panel wants to express their gratitude to the Metros on taking their time to prepare for the evaluations and also much appreciate the hospitality they showed towards the panellists.

Local Municipalities

- The site visits and assessments for the GMC has revealed what local municipalities are doing better to conserve our environment.

- Municipalities in South Africa design, develop, operate and oversee planning processes leading to service delivery in our communities. Almost all municipalities visited during the assessment for the Greenest Municipality Competition have developed some relevant policies and strategies for improved service delivery in relation to Waste Management, Water, Energy, Parks and Biodiversity. These municipalities are also at different points of actively tackling greening in line with the GMC evaluation criteria, with growing attention to environmental related Expanded Public Works Programme (EPWP) such as planting of trees, waste management and recycling, Working for Water and alien vegetation control. Most of these activities can partly be attributed to a national drive and municipalities on their part are trying to get a grip on this new concept of the Greenest Municipality Competition which is a major shift from the Cleanest Town Competition.

- Some municipalities evaluated are struggling to provide essential services to households who cannot even afford to pay for such services, and as a result greening to them appears to be an additional burden. Limited capacity in terms of human resources; very structured working environment where some departments do not have the opportunity to talk to each other even if they are working on similar issues; limited resource allocation and scarcity, even political issues are amongst the huge challenges observed during the site visits.

- The National Development Plan (NDP) recognises that “debates continue about managing ecological challenges and for most, the pace of change is dangerously slow and deeply worrying”. However at the local government level we came across a different picture as we witnessed municipalities managing ecological challenges by answering the much bigger question – What Can we do better? - With policies, strategies and actions that are already bearing if not starting to bear some fruits. Efforts by all municipalities participating in the GMC will go a long way in making it easier for more people to Go Green at a local level. All competing municipalities in GMC are winners, not only because they already won in their respective provinces but also because they provide much needed best practices in Greening that can be copied by others.
• Going forward it is recommended that the National and Provincial Departments of Environmental Affairs consider the following to maximise the overall impact of the GMC:

- Raise public awareness of the GMC thereby unlocking public interest and participation in greening broadly.
- Develop partnerships and networking opportunities between municipalities and other stakeholders involved in greening at the local level.
- Train and support municipal officials responsible for different greening elements, whilst nurturing them to constitute a greening team for better integration of all greening elements at the municipal level.
- Assist with developing larger scale greening programmes or making existing programmes such as the EPWP part of a comprehensive package, aimed at responding to poverty and unemployment and the development of green economy.
- Support municipalities to better understand and develop local level strategies for waste minimisation, carbon footprint management and community empowerment towards a greener municipality.
- Capacity building for municipalities to develop and enforce bi-laws.

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