

SOLID WASTE REPORT – Bill Alexander

1. Introduction

The Integrated Waste Management Department of the Bitou Municipality implements the waste management and disposal within the town. In this report the activities that fall under their responsibility are discussed.

2. Collection of domestic waste

All areas of the town are covered by the waste collection service. Waste is collected weekly from homes and as when necessary from business', restaurants etc. It is collected in compacting trucks and delivered to the Transfer Station near Kwanokuthula. The service works well, and the Municipality has sufficient trucks provided they are properly maintained. (See Section 5 below)

3. Operation of the Transfer Station

Domestic, bulky and garden waste is all transported to the transfer station where it is processed before being disposed of. There are staff management problems on the site. The gate and weigh-bridge are not properly controlled and the control of dumping within the site is badly organized and controlled.



3.1 Domestic Waste

The domestic waste is transported to the transfer station and dumped on a slab within the waste building. From there it is loaded into a compacting machine by front end loaders where it is compacted into special containers so that it can be transported to the regional landfill site near Mossel Bay. This is a vital part of the process because it significantly reduces the volume of waste that has to be transported. The following problems are experienced on the site:



A. Load shedding and break downs of the loader and compacting ram lead to the build up of stockpiles on site as shown in the photograph below. Provision of a generator to overcome load shedding would be a great improvement.

B. The compacting containers are in very poor condition and should be refurbished or replaced on a planned basis

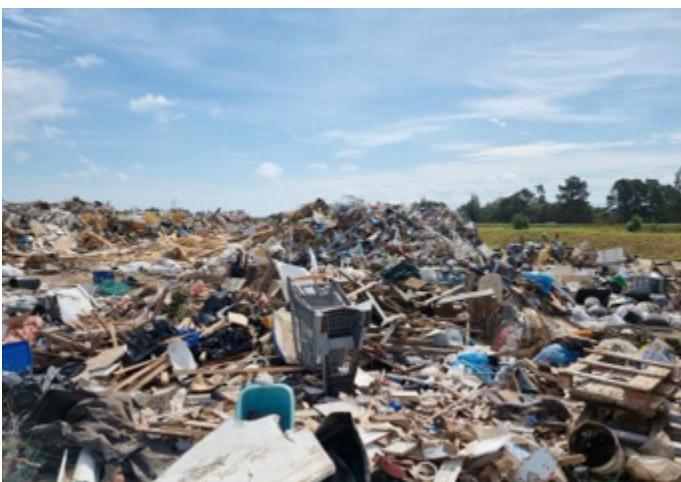
C. It will be seen that the domestic waste being transported to the Transfer Station contains high concentrations of recyclable material that should be removed from the waste and not sent to landfill.

3.2 Bulky Waste

The domestic waste is transported to the transfer station and dumped on a slab within the waste building. From there it is loaded into a compacting machine by front end loaders where it is compacted into special containers so that it can be transported to the regional landfill site near Mossel Bay. This is a vital part of the process because it significantly reduces the volume of waste that has to be transported. The following problems are experienced on the site:

Firstly,

The gate should be properly controlled so that only appropriate material is allowed on site. Secondly, plans have already been drawn up to construct a bulky waste management and recycle facility that will enable the bulky waste disposal to be properly managed, separated into categories and properly recycled where possible. Only the unrecyclable material should be sent to landfill.



3.3 Garden Waste

Garden waste is delivered by the public to the drop-off sites at Natures Valley or Old Nicks or directly to the transfer station. It is meant to be chipped and disposed of to the municipal parks and recreation department or collected by the public. The chipper currently being used is not suitable for the loads arriving on site and should be replaced by a horizontal grinder. Currently excess garden waste has to be carted to the KK Quarry where it is disposed of. The ideal solution would be the construction of a properly designed composting plant that would produce a value-added product. Consideration could be given to outsourcing this activity.

4. Disposing of the Waste to Landfill

All the domestic waste generated in the Garden Route towns is currently transported by road to the landfill site operated by PetroSA outside Mossel Bay. It currently costs Bitou R7 million/year to transport and dispose of the waste in this way.

4.1. Transport of waste

Bitou operates 2 hook lift trucks and trailers for transporting the waste to landfill. During off peak periods at least 2 trips are required per day and during peak periods 3-4 trips are required. The trucks are over 7 years old and clock up to 80 000km/year. They both need overhauls, but no spare capacity is available. An additional truck/trailer combination needs to be purchased, particularly in the light of maintenance problems identified in Section 5 below.

4.2. Landfill disposal

The PetroSA landfill site is full, and it is currently planned to close it at the end of February next year. A new landfill site has been designed, also outside Mossel Bay, but will only come into operation in September next year at the earliest. The GRDM is currently trying to find alternative dumping sites to be used during the interim. Bitou should monitor this process carefully as it has major cost implications.

5. Vehicle Maintenance

The Municipality operates a workshop that falls under the Engineering Department, but it only has capacity to maintain small vehicles and machinery. All trucks, trailers and loaders have to be maintained by an outside service provider located in George. Red tape involving the Workshop and the Supply Chain Management Departments result in delays of up to 4 weeks before an order can even be placed for the equipment repairs to proceed. This puts a strain on the resources available and is one of the reasons why additional equipment is needed. Every effort should be made to reduce this time lag to a matter of days.

6. Recycling

Recycling of waste is currently run by a service provider. They collect approximately 92 tons of waste/month which is approximately 15% of the total mass of domestic waste generated in Bitou. The photograph above shows how much recyclable material remains in the waste being collected. Up to 60% of all domestic waste is regarded as recyclable, and if Bitou was to achieve this over R3 million/year could be saved in transport and landfill costs. The current service provider contract is poorly drafted as it does not include any provisions for measuring of performance, incentives for expanding the scope of the initiative, education of the public etc. The contract expires at the end of June 2023 and the new contract should be redrafted to include these factors. It should also ensure that the reach of the yellow bag system for separating waste at source should be widened to include all communities and should include the management and recycling of the bulky waste at the transfer station.

7. Conclusions

The Municipality operates a workshop that falls under the Engineering Department, but it only has capacity to maintain small vehicles and machinery. All trucks, trailers and loaders have to be maintained by an outside service provider located in George. Red tape involving the Workshop and the Supply Chain Management Departments result in delays of up to 4 weeks before an order can even be placed for the equipment repairs to proceed. This puts a strain on the resources available and is one of the reasons why additional equipment is needed. Every effort should be made to reduce this time lag to a matter of days.

