A CRITIC OF NEMA: WASTE ACT 59 OF 2008, SO MANY PROMISES, LITTLE IMPLEMENTATION AND ENFORCEMENT

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ABSTRACT

The study is focused on the management of Waste in South Africa by investigating and analysing the National Environmental Management Waste Act 59 of 2008. The current trends review that challenges have been noted on the interpretation and enforcement of the Act. The definition of Waste in the Act has been described as restrictive, which means it has been difficult to apply the act owing to the definition which excludes other types of Waste. The study will also expose the need for more corporative governance as far as waste management is concerned. The study will further interrogate how other jurisdictions define the term 'Waste' and South Africa's commitment to international instruments dealing with waste management and the need for sustainable development. The study will draw its focus from the Constitution, National Environmental Management Act and other instruments.

Keywords: South Africa, Constitution, Development, Environment, Environmental law, Waste and Waste Management.

1. Introduction

South Africa is governed by the Constitution (1996). One of the most important things that the Constitution does is to make South Africa a "constitutional democracy" and a constitutional state (Act 3 of 2000). The constitutional era brought about a lot of changes and transformation within South African communities, amongst which is the right to a clean environment, which has laid the foundation for effective and sustainable waste management frameworks. This transformative agenda was entrenched in the rights of individuals that are illuminated and adumbrated in chapter 2 of the Constitution of the Republic of South Africa, the Bill of Rights which includes the right to a clean

environment (Constitution, 1996). Developmental socio economic rights include the right to a clean environment that is free from pollution, which drives the burning constitutional concept of development and sustainable development for the benefit of the current generation (intra generation equity) and for the benefit of the future generations (inter generation equity) (Mafunganyika, 2009). These concepts therefore all envisage sustainable waste management in South Africa. Waste management is one of the critical elements of sustainable development primarily because sound waste management practices contribute to sustainability (Kidd 2012). Legislation regulating waste management in South Africa has historically been fragmented and still is, to some extent. However, the coming into effect of the National Environmental Management: Waste Act (Act No. 59 of 2008), presents more holistic approaches to waste management regulation. The paper utilises a non-empirical (qualitative) approach generally acceptable in legal research activities Pursuant to this, existing literature will be used as legal sources to analyze and examine each legal issue raised in order to come up with a novel opinion on the issue. Also, it will be library based and will rely on numerous scholarly legal lexicons relevant to the issues surrounding waste management in South Africa. The paper is meant to give a critique of waste management in South Africa. The Constitution under Section 24 (b) states that everyone has a right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; as such the spheres of government must give effect to this provision by creating legislative frameworks that control and manage waste to avoid contamination of the environment. Therefore, this study aims to examine and critique the National Environmental Management Waste Act 59 of 2008 since it is the main statutory provision regulating waste in South Africa, to check if it is meeting the mandate of providing with sound waste management systems.

2. LITERATURE REVIEW

Waste is one of the most critical concerns facing South Africa presently; this led the legislature to take steps to pass a specific piece of legislation that directly deals with waste management which is the National Environmental Management Waste Act. According to the Department of Environmental Affairs (2016), "waste management is one of the critical elements of sustainable development primarily because sound waste management practices contribute to sustainability". The National Waste Management Strategy outlines that the legacy of inadequate waste services, poorly planned and maintained waste management infrastructure, and limited regulation of waste management persistently threaten the health and wellbeing of everyone in the country. Addressing this legacy and its negative environmental and social consequences advances people's constitutional right to a healthy environment (Department of Environmental Affairs, 2012).

According to Fiehn and Ball (2005), they state that key issues which face South Africa with regard to waste management include the lack of available or current waste information from all sectors, illegal dumping and illegal dumping sites, salvaging at waste disposal facilities, use of unpermitted landfills by municipalities, limited environmentally accepted landfill airspace, large portions of the population not receiving a weekly or adequate waste collection service, recycling not generally undertaken or encouraged by municipalities, waste minimisation which is almost exclusively industry driven, government departments' lack of waste databases, lack of regulation and enforcement of legislation and limited waste legislation.

In a research dissertation, Mbamuku (2012) stated that waste management is a global challenge due to high waste generation resulting from high industrialization, urbanization and challenges relating to the efficient implementation of waste management policies acts and standards. Although South Africa has established a number of good waste management policies and related acts and standards, most municipalities still find it challenging to efficiently implement waste management strategies. These challenges led to the introduction of the National Environmental Waste Act, which according

to the Department of Environmental Affairs (2012) introduced an improved system for licensing of waste management activities, and in order to control these activities and to ensure that they do not impact on human health and the environment. It is interesting to note that the Act also introduces a part that deals with polluted or contaminated land and requires anyone who has polluted land to take responsibility to assess the extent of contamination and to pay for the cleaning and rehabilitation of such land. This is a new provision in waste legislation in the country. The Waste Act also legislates some of the issues which have been common practice in the waste management sector but not compulsory, for example, reporting to the waste information system, development of integrated waste management plans and development of the national waste management strategy.

2.1 Waste Management Legislative Frameworks

2.1.1 Environment Conservation Act, 1989 (Act No. 73 of 1989) – the ECA

The ECA was the first piece of legislation formally regulating waste management in South Africa. The ECA provided for a definition of 'waste' and regulated mainly the disposal of waste. Following the publication of the IEM Guideline, the 1989 amendment to the ECA contained provisions to give the IEM Guideline the force of law: However, eight years were to elapse before this was done. During this time IEM Guideline documents were issued and numerous environmental assessments were conducted on a voluntary basis (Fuggle 2008). Not only were the provisions in the ECA a first step towards EIAs, but it was also the first significant piece of legislation regulating effective protection and controlled utilisation of the environment with specific reference to waste management in South Africa. The ECA did not only define waste, but also regulated the disposal of waste at disposal sites.

2.1.2 The Constitution of the Republic of South Africa, 1996

The promulgation of the Constitution was the first step towards the provision of integrated framework legislation for the management of the country's natural resources and other environmental-related issues. According to the Constitution, all South African people have the right to an environment that is not harmful to health or well-being (Constitution RSA 1996) is fundamental right underpins all environmental policies and legislations, in particular

the framework environmental legislation established by the National Environmental Management Act, 1998.

Section 24 in the Bill of Rights of the Constitution specifically states:

"24. Environment: Everyone has the right — (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that — (i) prevent pollution and ecological degradation;"

2.1.3 The National Environmental Management Act

The NEMA did not per se regulate waste management as part of the Act, but regulated waste managementrelated aspects as part of the EIA listed activities, promulgated in terms of the NEMA. The NEMA therefore did not only regulate the disposal of waste but also other waste management-related aspects, such as the recycling and recovery of waste. The NEMA does not provide for a separate definition of waste and as a result, reference was still made to the definition of waste as envisaged in terms of the ECA, and therefore many recycling and recovery activities were not regulated (Fuggle 2008). NEMA introduced a number of additional guiding principles into South African environmental legislation, including the lifecycle approach to waste management, producer responsibility, the precautionary principle and the polluter pays principle. Chapter 5 of NEMA provides instruments for integrated waste management. NEMA also places a duty of care on any persons who may cause significant pollution or degradation of the environment, requiring them to institute measures to either prevent pollution from occurring, or to minimise and rectify the pollution or degradation where it cannot reasonably be avoided. The Waste Act echoes the duty of care provision by obliging holders of waste to take reasonable measures to implement the waste management hierarchy.

2.1.4 The National Environmental Management Waste Act

The Waste Act establishes cooperative governance mechanisms for dealing with matters such as waste planning, designation of waste management officers and performance reporting. National and provincial government departments are also constitutionally obliged to support municipalities in the execution of their functions. Based on the NEMA framework, the most innovative feature of the NEMWA is the preference for the regionalisation

of solid waste management services. The Act also places considerable emphasis on the development of an integrated waste planning system, through the development of interlocking integrated waste management plans by all spheres of government and industry waste management plans for specified waste generators (Department of Environmental Affairs 2012).

2.2 Analysis of the NEMWA

Waste management is one of the critical elements of sustainable development primarily because sound waste management practices contribute to sustainability. Legislation regulating waste management in South Africa has historically been fragmented and still is, to some extent. However, the coming into effect of the National Environmental Management: Waste Act (Act No. 59 of 2008), presents more holistic approaches to waste management regulation (Department of Environmental Affairs 2011).

The Act was primarily promulgated to give effect to the Constitution of the Republic of South Africa and the National Environmental Management Act on the management of waste to ensure environmental protection. The Act further promotes the prevention of pollution and ecological degradation and for securing ecologically sustainable development, by providing with efficient waste management principles both locally and globally to ensure a healthy environment. The management of waste also calls for corporative governance amongst all the spheres of government so as to ensure that the law is enforced to all sectors in the republic, since lack of enforcement is one of the chief reasons leading to poor waste management. The major challenge has been the fact that waste management practices in many areas of the Republic are not conducive to a healthy environment and the impact of improper waste management practices are often borne disproportionately by the poor (Act 59 of 2008). Therefore, the problems associated with waste disposal and management are largely felt on the local sphere of government.

The removal and disposal of medical waste is therefore the duty of local authority. If local authority cannot perform its duties the provincial executive must intervene to ensure and to create a co-operative government. Municipal councils must not judge their own functions; checks and balances must be controlled by another institution. The public must therefore be pro-active in order to build an environment that is

sustainable in accordance with section 24 of the Constitution (Van der Bank 2011). The Waste Act is called Specific Environmental Management Act (SEMA) under NEMA. This means that NEMA applies to this Act and the principles which are outlined in section 2 of NEMA also apply. These principles include the fact that pollution and degradation of the environment must be avoided and where it cannot be avoided, minimised and rectified or remedied, polluter pays principle, and the promotion of public participation (Van der Bank 2011). The Waste Act places minimum requirements for any person who undertakes an activity which produces waste or a person who handles any waste which has already been produced to comply with. This includes storage of waste, transportation, processing, including people who are reusing or recycling waste. The State has an obligation required by the Constitution, to protect the environment and prevent ecological degradation and it does that by making different Regulations which everyone must comply to. (Van der Bank 2011).

2.3 Waste Management Hierarchy in terms of NEMWA

This new innovative way towards waste management put emphasis on the following key elements:

- Reduction: products and materials must be designed in a manner that minimises their waste components or in a manner that reduces material quantity and potential toxicity of waste generated during the production, and after use
- Re-use: materials can be used in a similar or different purpose without changing form or properties. This approach seeks to re-use or recycle a product when it reaches the end of its life span. In this way, it becomes inputs for new products and materials
- Recycle: This involves separating materials from the waste stream and processing them as products or raw materials. The first elements of the waste management hierarchy are the foundation of cradle-to-cradle waste management
- Recovery: reclaiming particular components or materials or using the waste as a fuel. Where the quantity of waste cannot be further reduced, they will be discharged to landfill. Landfill is considered the most affordable way to manage the final stage of waste. Currently, there is no more sufficient land space available for landfills. This is no longer

a favourable option in South Africa (Department of Environmental Affairs 2012).

The Waste Act has introduced an improved system for licensing of waste management activities, in order to control these activities and to ensure that they do not impact on human health and the environment. It is interesting to note that the Act also introduces a part that deals with polluted or contaminated land and requires anyone who has polluted land to take responsibility to assess the extent of contamination and to pay for the cleaning and rehabilitation of such land. This is a new provision in waste legislation in the country.

The Waste Act also legislates some of the issues which have been common practice in the waste management sector but not compulsory, for example, reporting to the waste information system, development of integrated waste management plans and development of the national waste management strategy (Department of Environmental Affairs 2012). Key issues which face South Africa with regard to waste management include the lack of available or current waste information from all sectors, illegal dumping and illegal dumping sites, salvaging at waste disposal facilities, use of unpermitted landfills by municipalities, limited environmentally accepted landfill airspace, large portions of the population not receiving a weekly or adequate waste collection service, recycling not generally undertaken or encouraged by municipalities, waste minimisation which is almost exclusively industry driven, government departments' lack of waste databases, lack of regulation and enforcement of legislation and limited waste legislation (Fiehn & Ball 2005).

2.3.1 Principles Underpinning Waste Management

In South Africa, waste management is closely connected to the environment as such some environmental protection principles apply as provided by NEMA to ensure proper management of waste. NEMA introduced a number of additional guiding principles into South African environmental legislation, including the life-cycle approach to waste management, producer responsibility, the precautionary principle and the polluter pays principle. NEMA also places a duty of care (Act 107 of 1998) on any person who causes significant pollution or degradation of the environment, requiring them to institute measures to prevent pollution from occurring, or to minimise and rectify the pollution or degradation where it cannot reasonably be avoided. The Waste Act echoes the duty of care provision by

obliging holders of waste to take reasonable measures to implement the waste hierarchy whilst protecting the environment and public health. The sustainable waste management principles allow for the prevention, generation, collection, transportation, treatment and final disposal of waste. The applicable principles would be discussed hereunder: -

Section 2(4) (p) of the NEMA embodies the polluter pays principle provides that: The costs of remedying pollution, environmental degradation and consequent health effects must be paid for by those responsible for harming the environment. This is a vital environmental principle which envisages that all costs associated with waste management should, where possible, be borne by the waste generator. The principle is further interpreted as defining pollution as any by-product of a production or consumption process that harms or otherwise violates the property rights of others. The polluter would be the person, company, or other organization whose activities are generating that by-product. And finally, payment should equal the damage and be made to the person or persons being harmed (Cordato 2001). Therefore, with the definition of the principle, it is clear that with regard to waste management the person responsible for creating the waste should be responsible for the costs for disposing such waste. The principle was applied by the court in the case of Rainbow Chicken Farm (Pty) Ltd v Mediterranean D Woollen Mills (Pty) Ltd (1997 4 SA 578 (W)) where the court held that the producer of the effluent owes a common law duty of care towards others; the duty is then contained in NEMA which means that a person has to pay for the damage caused to others.

3. CHALLENGES IN IMPLEMENTATION AND ENFORCEMENT OF NEMWA

South Africa as a developing country is in a growth path both in terms of population as well as economic growth. In essence, this growth means that citizens become more productive and therefore produce more waste (Act 107 of 1998). This varies from industrial waste which results from manufacturing and processing plants as well as general or domestic waste which include packaging material (paper, cardboards, plastic, bottles and steel/aluminium cans) and anything that the user does not have further use of. The general approach of the Act is that it gives enabling powers to the Minister of Environmental Affairs as well as Members of Executive Committee (MECs) responsible for environmental management at provincial level to pass further regulations on different aspects.

The Act does not spell out all the details required to manage different waste types, for example building waste, e-waste, garden waste, batteries, agricultural waste etc. Such details are or can be spelled out in regulations, Municipal by-laws as well as other guiding documents which are published by government from time to time. The NEMWA Act has been noted with various challenges as far as its implementation and enforcement is concerned. The wording of terms in NEMWA has also led to challenges in interpretation and results in conflict. The definition of 'waste' as contained in the NEMWA is very broad and open to different interpretations. Different interpretations sometimes result in conflicting situations between industry(s) and government (Taljaard 2001). This has led to challenges in trying to determine the meaning of 'waste', as such a lot of matters have been left unresolved. Some of the challenges will be discussed hereunder.

3.1 Interpretation and Principles

The Waste Act has a long list of all the terms which have been used in the text where a dictionary definition may not be sufficient, the wording in the Act has to be interpreted contextually to allow proper interpretation of terms. The main terms defined include 'waste'. Waste is defined as any substance irrespective whether it has a potential to be reduced, re-used, recycled or recovered; that is surplus or the owner or generator does not need it anymore. This critically exposes the fact that the definition of waste is exclusionary to other types of waste for instance medical waste which may not be recycled. This brings about challenges as far as cases involving the excluded types of waste in court. The Waste Act does not apply to areas that are regulated by other sectoral legislation, including radioactive waste residue deposits and residue stockpiles the disposal of explosives and the disposal of animal carcasses (Department of Environmental Affairs 2012). These aspects are regulated by other empowering provisions; this is however a problem since the waste act is supposed to have an overriding effect on all the other legislations on all matters governing waste management.

3.2 Inadequate Waste Disposal Services

A historical backlog of waste services for, especially, urban informal areas, tribal areas and rural formal areas. Although 61% of all South African households had access to domestic waste collection services in 2007, this access remains highly skewed in favour of more affluent and urban communities. Inadequate waste services lead to unpleasant living conditions

and a polluted, unhealthy environment (Department of environmental affairs). This problem is highly prevalent in areas that were disadvantaged by the system of Apartheid; as such the local government must allocate more resources to such areas for proper waste management.

4. Lack of Corporative Governance

The local sphere of the government is primarily responsible for waste collection and disposal from communities. However, there have been challenges noted as far as areas of competence are concerned. The Waste Act does not include certain types of waste, for instance medical waste which is very hazardous to the environment. If the municipality cannot remove medical waste, the community must be notified that the service is outsourced and to whom the contract will be given (s 4(2) Municipal Systems Act, 2000). In exercising its executive and legislative authority the municipality must promote a safe and healthy environment (s 4 (2) (i) Municipal Systems Act, 2000). Finally, the municipality together with the other organs of state must promote the fundamental rights in the Constitution and other rights that are directly related to the fundamental right in section 24 of the Constitution (1996). This means that they must ensure that the collection of waste is done is done in a sustainable manner that is in compliance with Section 24(b)(i), which states that they must enforce measures that reduce pollution and ecological degradation. It is therefore clear that there is lack of corporative governance between the spheres of government, this is evident by the fact that in terms of waste disposal, the national and provincial sphere are supposed to assist the local sphere with disposal of certain types of waste especially medical waste. The failure of the organs of state is dominantly noted on the increase of illegal dumping of medical waste across South Africa, especially on the recent case of medical waste that was washed off shore in Durban (News 24 2016). This is contravention of Section 24 of the Constitution, and has devastating effects on the health and wellbeing of every citizen, hence the government must take steps to encourage corporation on the disposal of such dangerous waste.

4.1 Addressing the Challenges

The challenges presented by the NEMWA Act demand maximum corporation from all spheres of the government and other stakeholders to ensure that waste management is conducted in a sustainable

and concise manner that promotes environmental conservation and protection. The National Waste Management Strategy suggested a number of solutions to address the waste crisis in South Africa, it calls upon the government, private sector and civil society to all work together to ensure that waste is reduced, recycled and reused as per the waste management hierarchy. Indeed, without corporation from all sectors in society it is clear that the problem will not cease, considering the fact that the illegal dumping of waste is not the rise as pointed out by the Centre for Environmental Management (Ross 2012).

The current situation clearly shows that waste is a challenge in various provinces in South Africa, especially medical waste. The case of Millennium Waste Management v Chairperson Tender Board (2007 SCA 165 (RSA)) showed that Limpopo was one of the provinces experiencing the illegal dumping of waste especially on sites not meant for that purpose. The Department of Health and Social Development decided to issue tenders to companies for the disposal and removal of such waste. This is a proper solution considering the fact that the local government might not have the resources and manpower to dispose of such waste. Medical waste is very dangerous; as such it must be disposed of in the proper manner, which may include incineration. An unreported case of State v Waste Man, also showed a circumstance wherein there was illegal dumping of such waste in Welkom therefore measures need to be taken to ensure such incidents are reduced.

In order to ensure compliance with the current waste laws, the government must draft legislation, regulations, standards and Integrated Waste Management Plans (Department of Environmental Affairs and Tourism 2012). They would go a long way in ensuring that companies and the general public take waste management seriously and would also fill the gaps in the waste management Act. The legacy of inadequate waste services, poorly planned and maintained waste management infrastructure, and limited regulation of waste management persistently threatens the health and wellbeing of everyone in the country (Department of environmental affairs and Tourism). Therefore, the integrated waste management plans need to be implemented so that Municipalities may produce yearly a document on how they plan to regulate and dispose waste.

The government must also come up with a comprehensive way of assisting in the disposal of waste since certain types of waste are very expensive to

dispose. An example is that of medical waste as demonstrated in the case of *State V Aesthetic Waste Services (Pty) Ltd* whereby the DEA received a complaint that Heath Care Risk Waste ("HCRW") was being stored unlawfully at a location in Butterworth, Eastern Cape. The complaint was followed up and a site investigation was executed by EMIs from DEA and the Eastern Cape Provincial Department, who discovered a large amount of HCRW being stored on site. As is often the case in matters of this nature, the area smelled of rotten and decaying human flesh and posed a threat to both human health and the environment.

Waste services involve collecting waste from households, organisations and businesses, and disposing of this waste safely. Waste services are the Constitutional responsibility of local government, and municipalities are the primary interface between the public and government around waste management. It is clear that the government is not doing enough as far as waste management is concerned as envisaged by the current problems that are imminent. Therefore, the government must progressively expand access to at least a basic level of waste services, and to ensure that waste that cannot be re-used, recycled or recovered is disposed of safely in properly permitted landfill sites. These objectives address historical backlogs and inequalities in access to waste services, and improve the quality of life for the entire community by providing a cleaner place to work and live. Expanded waste services will also create jobs and so contribute to socio-economic growth.

Awareness of the impact of waste on health, wellbeing and the environment is very uneven across different communities, as evidenced by the extent of littering. The objectives of this goal are to create awareness of waste management issues and to add practical waste projects to basic education curricula. For maximum effectiveness, waste awareness and anti-littering campaigns will be linked to the recycling infrastructure and to extended waste services. This will be particularly important in separating waste at source. For this reason, municipal campaigns designed and implemented in partnership with local stakeholders, including labour, industry, civil society and NGOs, form the foundation of the strategy to create awareness about waste. DEA will launch a long term awareness campaign on waste management, to be implemented in a sustainable and incremental manner, with the objective of achieving behaviour changes.

5. Conclusion

Therefore, in conclusion, it can be stated that waste management in South Africa has challenges that need to be addressed. The main challenge is the enforcement of such instruments which includes the waste Act. The NEMWA Act makes provision for the spheres of government to work together although the local sphere has more responsibilities to ensure that waste management is conducted in a sustainable manner. The Act also has the waste management hierarchy which encourages recycling of waste products in order to avoid contaminating the environment. The other challenge is also the fact that the definition of waste as mentioned in the Act gives problems since its restrictive, the NEMWA however is a sound piece of legislation which requires enforcement to ensure that the environment is protected for current and future generations to come.

6. RECOMMENDATIONS

From the aforementioned it is clear that there is a conflict of interest between certain stakeholders involved with the interpretation of the definition of waste as contained in the NEMWA. Should the interpretation of the DEA be followed (as a longterm solution), which includes an all-encompassing definition of waste, such interpretation will promote environmental protection but at the same time discourage the implementation of the waste hierarchy as determined in the NEMWA. On the other hand, should the other interpretations as suggested by industry be followed as a long term solution, such interpretations will support the implementation of the waste hierarchy but may undermine environmental protection. It is therefore clear that there should be a trade-off between the protection of the environment and the re-use, recovery and recycling opportunities of materials available to industry on the short-term as well as the long-term In order to achieve such a tradeoff, it is suggested that the 'End-of Waste' criteria in South Africa be reconsidered and re-evaluated to ensure more legal certainty with regard as to exactly constitutes waste and to provide for a definition of 'waste' which is clearly defined. This re-evaluation process should be done in the form of a public participation process by all the relevant stakeholders.

The paper further recommends that all spheres of government must ensure the effective and efficient delivery of waste services. Waste services involve collecting waste from households, organisations and businesses, and disposing of this waste safely.

Waste services are the Constitutional responsibility of local government, and municipalities are the primary interface between the public and government around waste management. This would prevent illegal dumping of waste especially industrial and medical waste which is being dumped on illegal landfills not designated for such purposes. It is also apparent that the general populace is not well informed of the effects of improper handling of household waste. Therefore, the study further recommends that the government must carry out workshops and outreach programmes to educate people, and to ensure that people are aware of the impact of waste on their health, well-being and the environment. This would ensure that waste levels are reduced and that the waste management hierarchy is complied with.

The paper further puts forward that the Department of Education must also get involved by teaching learners about the importance of waste management; this would ensure that learners avoid littering and would also spread such teachings to various communities. The Department of Environmental Affairs in collaboration with the Department of Education must start a campaign to encourage community service to learners wherein they move around their respective communities picking and disposing litter to ensure a clean environment. Finally, meanwhile the Waste Act creates a comprehensive legal framework for waste management, its provisions will be meaningless without measures to monitor and, where necessary, enforce compliance. Government cannot do this alone. Business and civil society have a vital role to play in creating a culture of compliance, and in reporting instances of non-compliance. For its part, government will systematically monitor compliance with the Waste Act, which includes regulations published in terms of the Act, licences, industry waste management plans and integrated waste management plans. Therefore, effective compliance with and enforcement of the Waste Act is mandatory in order to ensure that the provisions of the act are fulfilled.

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