

A Review of a **Selection of Local Waste Bylaws Against the** Framework of the National **Environmental Management: WASTE BILL, 2007**

Nancy Oosthuizen & Aldine Armstrong



A REVIEW OF A SELECTION OF LOCAL WASTE BYLAWS AGAINST THE FRAMEWORK OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE BILL, 2007

Report to the Water Research Commission

by

Nancy Oosthuizen of Nancy Oosthuizen Consulting CC & Aldine Armstrong of Aldine Armstrong Attorneys

WRC Report No. TT 398/09

July 2009

Obtainable from

Water Research Commission Private Bag X03 Gezina, 0031

orders@wrc.org.za

The publication of this report emanates from a project entitled *Development of Guidelines to Facilitate Legal Compliance with Respect to Industrial Waste Management*. (WRC Project No. K5/1733)

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ISBN 978-1-77005-845-1 Set No. 978-1-77005-841-5

Printed in the Republic of South Africa

ACKNOWLEDGEMENTS

The financing of the project by the Water Research Commission and the contribution of the members of the Reference Group are gratefully acknowledged.

The Reference Group responsible for this project consisted of the following persons:

Dr Valerie Naidoo (Chairman) Water Research Commission

Ms Sue Beningfield Institute of Waste Management Southern Africa
Mr Ian Naidoo Durban Chamber of Industry – Environment

Committee

Ms Shane Naidoo Department of Water Affairs and Forestry
Mr Pat Reddy Department of Water Affairs and Forestry

Mr Sgananda Jikijela Department of Environmental Affairs and Tourism Marvellous Nengovhela Department of Environmental Affairs and Tourism

Mr Sunil Ramkissoon eThekwini Water and Sanitation

Ms Shauna Costley Department of Agriculture and Environmental Affairs

Mr Bruce Dale eThekwini Health
Mr John Parkin Durban Solid Waste
Mrs Sandra Redelinghuys Engen Refinery

The Project team consisted of the following persons:

Mrs Nancy Oosthuizen (Project Leader)
Ms Aldine Armstrong
Nancy Oosthuizen Consulting CC
Aldine Armstrong Attorneys

Acknowledgement is made of the workshop input of various members of the Cape Metropolitan Council, particularly Mr Barry Coetzee, Manager Integrated Waste Management, Policy, Strategy & By-laws, Solid Waste Management Dept.

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1. INTRODUCTION

South Africa is emerging from a legacy of outdated laws and policies into one of sustainability effecting a transformation to development that is economically, socially and environmentally sustainable. Waste management legislation, in particular is currently fragmented, unfocused and ineffective, with the contingent issues of capacity and implementation. The pending National Environmental Management: Waste Bill, 2007¹ (The Waste Bill) seeks to address these short comings. In line with international trends, it introduces preventative strategies aimed at pollution prevention and waste minimisation thereby driving the establishment of integrated pollution and waste management systems. It seeks to develop national norms and standards, a waste information system, and defines the roles of Municipalities with respect to waste management activities.

The Constitution of South Africa places the obligation for cleansing, refuse removal, refuse dumps and solid waste disposal within the executive competence of Municipalities. It then becomes necessary to assess the efficacy of existing and proposed Bylaws, and to determine how they are aligned to the principles enshrined in the new order legislation. This becomes particularly important as in most instances the municipality is regulating and dealing with the source of the waste stream, which, if managed effectively, reduces the impact as the waste moves through its life cycle.

New order legislation and policy also places greater responsibilities on the private sector and civil society, in terms of the roles they play in pollution and waste management.

2. LEGAL FRAMEWORK

2.1 GENERAL

A major problem still facing municipalities is that there are so many Bylaws, some outdated, but all needing to be merged and transformed in the context of new legislation. The amalgamation of municipalities through the demarcation process has also exacerbated the Bylaw situation. It is quite apparent that with increasing decentralisation of government functions through assignments and delegations, the responsibilities of local government are becoming more and more complex.

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¹ Bill 39D of 2007.

An analysis of the existing and pending national (and in some instances, provincial) legislation and policy provides direction and guidelines as to what municipalities should be responsible for, what should be in their Bylaws, and how integrated waste management should be implemented in their jurisdictions. It sets out the level of waste service standards including waste removal, waste storage and waste disposal, waste regulation and control, and the obligation to comply with relevant standards and principles.

2.2 CONSTITUTION OF SOUTH AFRICA ACT 108 OF 1996

Waste management practices have the potential to cause pollution and adversely impact on human health. Chapter 2 of the Constitution of South Africa (Act 108 of 1996) contains the Bill of Rights. Section 24 deals with the environment, and enshrines the rights of all individuals to an environment that is not harmful to their health or well-being. Furthermore Section 24(b) requires that the environment is protected through reasonable legislative and other measures that inter alia prevent pollution and ecological degradation and that secure ecologically sustainable development. Government at national, provincial and local level is therefore obliged to take reasonable legislative, operational and other measures to ensure the environmental rights as stated are fulfilled.

Chapter 7 of the Constitution deals with local government matters. Section 151 relates to the status of municipalities which have the right to govern the local government affairs of its community subject to national and provincial legislation as provided in the Constitution. The objects of local government as defined in Section 152 include the provision of services to communities in a sustainable manner and the promotion of a safe and healthy environment which the municipality must strive to achieve within its financial and administrative capacity.

Schedules 4 and 5 of the Constitution deal with the legislative, functional and executive competences of national, provincial and local government respectively and are divided into Parts A and B. Part B of both Schedules lists the areas over which local government has some executive authority. Section 156 sets out the powers and functions of municipalities. A municipality has the executive authority in respect of, and has the right to administer local government matters listed in Part B of Schedule 4 and Part B of Schedule 5 of the Constitution and any other matter assigned to it by national or provincial legislation. Schedule 4 details the functional areas of concurrent

national and provincial legislative competence and Schedule 5 details the exclusive provincial legislative competence. Part B of Schedule 5 lists local government competencies which specifically include cleansing, refuse removal, refuse dumps and solid waste disposal. Municipalities therefore need to have certain controls over the activities included in these schedules, which can be achieved, for example, by the promulgation of applicable Bylaws.

Local authorities may make and administer Bylaws, with the necessary supporting processes that deal with the protection of human health and the environment in so far as waste management activities listed in Part B of Schedule 5. Bylaws may only be enforced after they have been published in the official government gazette of the province and municipal Bylaws must be accessible to the public. Bylaws must be aligned with national or provincial legislation or they will be deemed invalid.

Section 139 of the Constitution provides for provincial government to intervene in the event of local government not meeting this obligation thus allowing for control over municipalities that fail to meet their waste management responsibilities. Section 229 gives the municipality the power to impose fees for waste services provided by the municipality.

2.3 WHITE PAPER ON INTEGRATED POLLUTION AND WASTE MANAGEMENT FOR SOUTH AFRICA, 2000

The White Paper on Integrated Pollution and Waste Management² represents formal government policy regarding integrated pollution and waste management and deals with the related vision, principles, goals and objectives. It highlights the fact that historically waste management was not afforded the priority it warranted as an essential function in respect to the prevention of pollution and protection of the environment and public health. Consequently, insufficient funds and human resources were allocated to waste management which, in many instances, resulted in a lack of long-term planning, limited availability of information, inadequate legislation and capacity to effectively manage the waste streams generated in South Africa.

The fragmented state of legislation applicable to waste management and concomitant lack of government capacity has meant that enforcement of existing

² Gazette Notice No 227, Government Gazette No 20978 dated 17th March 2000.

legislation is frequently unfocused, especially with regard to waste disposal. Environmentally and socially unacceptable practices characterise many aspects of waste management such as substandard, ineffective or non-existent waste collection and street-cleaning systems; illegal dumping and littering and poorly sited and badly managed waste disposal sites.

Until recent years, the focus on waste in South Africa has been on waste disposal and impact control. This has resulted in a lack of focus on issues such as waste avoidance and minimisation; cleaner production initiatives; regulatory initiatives to manage waste minimisation; resource recovery and commitment to recycling; and appropriate waste treatment methods.

The White Paper seeks to invoke a paradigm shift from the 'end-of-pipe' waste management solutions to an integrated pollution and waste management system which is a holistic, integrated and aimed at pollution prevention and minimisation at source, managing the impact of pollution and waste on the receiving environment, and remediating damaged environments.

The introduction of integrated waste management has the hierarchical approach to waste management as its underpinning principle. The application of the waste hierarchy dictates that disposal of waste to landfill is seen as a last resort, with increasing focus being placed on the minimisation of waste through cleaner production, recycling and treatment initiatives.

The White Paper identifies a number of strategic goals including: an effective institutional framework and legislation; pollution and waste minimisation impact management and remediation; holistic and integrated waste management planning; participation and partnerships in integrated pollution and waste management governance; empowerment and education in integrated pollution and waste management; and waste information management.

2.4 THE NATIONAL WASTE MANAGEMENT STRATEGY, 1999 (NWMS)

The NWMS was initiated in 1999 as the government's long-term plan (up to the year 2010) for addressing key issues, needs and problems experienced with waste management in South Africa. The strategy aims to reduce both the generation and the environmental impact of waste and to translate the Integrated Pollution and

Waste Management Policy into practice. It presents a plan for ensuring that the socio-economic development of South Africa, the health of its people and the quality of its environmental resources are no longer adversely affected by uncontrolled and uncoordinated waste management. Central to the strategy is the establishment of waste management systems that concentrate on avoiding, preventing and minimising waste and the extension of an acceptable standard of waste collection, transportation, treatment and disposal services to all communities.

Chapter 7 of the NWMS introduced the concept of Integrated Waste Management Planning, the primary objective of which is to integrate and optimise waste management so that the efficiency of the waste management system is maximised and the impacts and financial costs associated with waste management are minimised, thereby improving the quality of life of all South Africans. To this end the NWMS required that various sectors produce Integrated Waste Management Plans. Whilst Provincial Government was tasked with producing plans for hazardous waste management, local government were tasked with the development of plans for general waste management.

2.5 THE POLOKWANE DECLARATION ON WASTE MANAGEMENT, 2001

The Polokwane Declaration is the outcome of the Waste Summit held in Polokwane during September 2001. The preamble of the declaration recognises that waste management is a priority for all South Africans and that there is a need for urgent action to reduce, reuse and recycle waste in order to protect the environment.

The vision of the Declaration was defined as-

To implement a waste management system which contributes to sustainable development and a measurable improvement in the quality of life, by harnessing the energy and commitment of all South Africans for the effective reduction of waste.

The Goal of the Declaration was defined as-

To reduce waste generation and disposal by 50% and 25% respectively by 2012 and develop a plan for Zero Waste by 2022.

Various commitments were made by national, provincial and local government including to: develop an information management system by April 2002; to provide comprehensive waste management systems; to promote and implement sustainable poverty relief projects and to develop compliance monitoring mechanisms.

The National Environmental Management Act (NEMA) is the framework Act dealing with environmental management in South Africa and all organs of State are bound by the Act. NEMA provides for cooperative governance and establishes principles for decision-making on matters affecting the environment. The two central principles are that people and their needs must be placed at the forefront of environmental management and that development must be socially, economically and environmentally sustainable. Sustainable development includes that waste is avoided, or where it cannot altogether be avoided is minimised and reused or recycled where possible and otherwise disposed of in a responsible manner; that environmental management must be integrated and that all elements of the environment are linked; that responsibility for environmental management exists throughout the life cycle of an activity (from cradle to grave); and that the polluter must pay.

The principles apply to the actions of all organs of state including that of Municipalities who are to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of categories of persons disadvantaged by unfair discrimination. It is to-

Serve as the general framework within which environmental management and implementation plans must be formulated;

Serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment.

Section 28 of NEMA contains a Duty of Care Provision which is particularly relevant to all waste activities and requires that-

Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.

Pollution, as defined in NEMA, incorporates pollution arising from waste activities - Any change in the environment caused by- (i) substances.... (iii) noise, odours, dust or heat, emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or well-being or on the

composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future.

Chapter 5 of NEMA provides for integrated environmental management (IEM) and defines the general objectives thereof. Minimum procedures are laid down with respect to investigating, assessing and communicating the potential impacts of activities. Regulations³ in terms of Chapter 5 were promulgated in 2006 and deal with the authorisation of activities that have an impact on the environment. Two listing notices have been promulgated in respect of activities that must be authorised through either a basic assessment or environmental impact assessment process. Activities pertaining to waste management are included in each notice.

Chapter 7 deals with compliance and enforcement. The MEC is empowered to designate as an environment management inspector (EMIs) any member of staff from-

- (i) the department responsible for environmental management in the province;
- (ii) any other provincial organ of state; or
- (iii) any municipality in the province.

This must be done in agreement with the relevant organ of state or municipality. EMIs will play a role in the inspection of waste related activities and compliance matters pertaining thereto.

2.7 THE ENVIRONMENT CONSERVATION ACT 73 OF 1989

The Environment Conservation Act (ECA) is historically the main Act that governs waste disposal in South Africa. Although many sections of the ECA have been repealed, those dealing with waste are still in effect.

The ECA defines⁵ waste as-

Any matter, whether gaseous, liquid or solid or any combination thereof, which is from time to time designated by the Minister by notice in the Gazette as an undesirable or superfluous byproduct, emission, residue or remainder of any process or activity.

³ Gazette Notice No R385, 386 and 387 of 21 April 2006.

⁴ Listing Notices: Gazette Notice R386 and R387 of 21 April 2006. GNR 386 includes construction of activities relating to the transportation and treatment of effluent, waste water or sewage under a certain threshold, and the construction of facilities for recycling, reuse, handling and temporary storage of general waste below a certain threshold, and for the temporary storage of hazardous waste. Such activities require the undertaking of a basic assessment. Similar activities but over a certain threshold are listed in GNR 387 which require a full environmental impact assessment to be undertaken ⁵ Section 1: Definitions.

Gazette Notice Number 1986 of 24th August 1990 published in terms of the ECA further defines waste as-

Any undesirable or superfluous by-product, emission, residue or remainder of any process or activity, any matter, gaseous, liquid or solid or any combination thereof, originating from any residential, commercial or industrial area, which-

- (a) is discarded by any person; or
- (b) is accumulated and stored by any person with the purpose of eventually discarding it with or without prior treatment connected with the discarding thereof; or
- (c) building rubble used for filling or levelling purposes;
- (d) is stored by any person with the purpose of recycling, re-using or extracting a usable product from such matter, excluding-
- (i) water used for industrial purposes or any effluent produced by or resulting from such use which is discharged in compliance with the provisions of section 21 (1) of the Water Act, 1956 (Act No. 54 of 1956) or on the authority of an exemption granted under section 21 (4) of the said Act;
- (ii) any matter discharged into a septic tank or French drain sewerage system and any water or effluent contemplated by section 21 (2) of the Water Act, 1956;
- (iii) any radio-active substance discarded in compliance with the provisions of the Nuclear Energy Act, 1982 (Act No. 92 of 1982);
- (iv) any minerals, tailings, waste-rock or slimes produced by or resulting from activities at a mine or works as defined in section 1 of the Mines and Works Act, 1956 (Act No. 27 of 1956);
- (v) ash produced by or resulting from activities at an undertaking for the generation of electricity under the provisions of the Electricity Act, 1987 (Act No 41 of 1987).

Section 19 provides for general prohibition against littering and illegal dumping and requires that-

Every person or authority in control of or responsible for the maintenance of any place to which the general public has access shall at all times ensure that containers or places are provided which will normally be adequate and suitable for the discarding of litter by the public.

Section 19A provides that-

Every person or authority in control of or responsible for the maintenance of any place to which the public has access, shall within a reasonable time after any litter has been discarded, dumped or left behind at such place (with the inclusion of any pavement adjacent to, or land situated between, such a place and a street, road or site used by the public to get access to such place) remove such litter or cause it to be removed.

Municipalities therefore have to ensure the provision and maintenance of these facilities.

Section 20(1) of the ECA stipulates that no person may establish or operate a disposal site⁶ without a permit. The disposal site permit is issued by the Minister of the Department of Agriculture and Environmental Affairs and is subject to the concurrence of the Minister of Water Affairs and Forestry. Section 20(9) of the ECA provides that no person shall discard waste in any manner except at a permitted site or under such other manner and under such conditions as may be prescribed by the Minister. The municipalities therefore have an obligation to ensure that their landfill sites have the required permits and that wastes that are collected are taken to the appropriately permitted facilities.

The ECA also contains provisions for the Minister to make regulations pertaining to waste management.

2.8 THE MINIMUM REQUIREMENTS SERIES OF DOCUMENTS

The Department of Water Affairs and Forestry produced a series of guideline documents in 1994. Second editions were later published in 1998⁷. The document series consist of three volumes-

- Document One: Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste;
- Document Two: Minimum Requirements for Waste Disposal by Landfill; and
- Document Three: Water Monitoring of Waste Management Facilities.

Although these documents were never incorporated into law, they are used as the basis for landfill and waste facility permitting and are referenced in the facility permits.

2.9 THE NATIONAL WATER ACT 36 OF 1998

The National Water Act (NWA) deals with *inter alia* the protection of South Africa's water resources and defines waste as-

Any solid material or material that is suspended, dissolved or transported in water (including sediment) and which is spilled or deposited on land or into a water resource in such volume, composition or manner as to cause, or to be reasonably likely to cause, the water resource to be polluted.

⁶ ECA Section 1: Definition of disposal site: A site used for the accumulation of waste with the purpose of disposing or treatment of such waste.

A draft revision was circulated in 2005 but was never finalised.

Along similar lines to NEMA, Section 19(1) of the NWA places a pollution prevention duty on landowners, persons in control, users or occupiers of land to take all reasonable measures to prevent water pollution from occurring, continuing or recurring. Waste activities will therefore be subject to this provision.

Section 21 of the NWA defines water uses that require a licence and includes water uses related to waste activities as follows-

S21(f) discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit; and S21(g) disposing of waste in a manner which may detrimentally impact on a water resource.

Municipalities are thus responsible hereunder for the licensing or registration of waste related water use activities that they undertake.

2.10 THE ATMOSPHERIC POLLUTION PREVENTION ACT 45 OF 1965 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT AIR QUALITY ACT 39 OF 2004

Although this discussion document deals mainly with solid waste management and municipalities it is noted that certain waste related activities, such as waste incineration are subject to various licensing provisions presently dealt with under the Atmospheric Pollution Prevention Act read with the National Environmental Management: Air Quality Act. In due course, these licensing requirements will eventually be dealt with in terms of the National Environmental Management Air Quality Act when the date of commencement of the relevant sections is gazetted and regulations promulgated. Relevant requirements in terms of gas cleaning equipment and emissions are dealt with in terms of these Acts.

2.11 THE HEALTH ACT 63 OF 1977

The Health Act⁸ provides measures for the promotion of health of the inhabitants of South Africa. Section 1 includes a lengthy definition of nuisance, and incorporates nuisances arising from poor waste management practises including-

(c) any accumulation of refuse...which is offensive or is injurious or dangerous to health'; (g) any factory or industrial or business premises causing or giving rise to smells or effluvia which are offensive or which are injurious or dangerous to health' and (h) any area of land kept or permitted to remain in such a state as to be offensive.

⁸ Act 63 of 1977 is to be repealed by the National Health Act 61 of 2003 at a date still to be published in the Government Gazette.

Section 14(1)(c) obliges the Department of National Health to take steps for the promotion of a safe and healthy environment and Section 20(1) compels local government to take measures-

- (a) To maintain its district at all times in a hygienic and clean condition;
- (b) To prevent the occurrence within its district of- any nuisance; any unhygienic condition; any offensive condition; or any other condition which will or could be harmful or dangerous to the health of any person within its district or the district of any other local authority.... and
- (c) To prevent the pollution of any water intended for the use of the inhabitants.

Proposed Regulations for the Control of Environmental Conditions Constituting a Danger to Health or a Nuisance were published in Government Gazette No 20796 dated 14th January 2000 dealing *inter alia* with medical waste and including a schedule of 50 trades which are potentially polluting and which will require registration. These regulations have not come into effect as yet.

2.12 THE HAZARDOUS SUBSTANCES ACT OF 1973

The Hazardous Substances Act provides for-

The control of substances, which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitising or flammable nature or the generation of pressure thereby ...' and for '...prohibition and control of importation, manufacture, sale, use....disposal or dumping of such substances or products..

The Act makes provision for the Minister to declare Grouped Hazardous Substances. Group I and II substances are substances that are dangerous to humans due to their toxic nature⁹; Group III substances are electronic products and Group IV substances are radio-active materials. The disposal of containers having held Group I substances are dealt with in regulations for Group I Substances¹⁰. All the regulations have limited application to waste matters.

2.13 THE OCCUPATIONAL HEALTH AND SAFETY ACT 85 OF 1993

The Occupational Health and Safety Act (OHSA) provides for the health and safety of persons at work and the protection of persons other than persons at work against hazards to health and safety arising out of, or in connection with, the activities of

⁹ Group I substances declared in Gazette Notice No R452, Government Gazette No 467 of 25th March 1977 and Group II substances declared in Gazette Notice No R1382, Government Gazette No 15907 of 12th August 1994. ¹⁰ Gazette Notice No R453, Government Gazette No 5467 of 25th March 1977.

persons at work. It places duties on employers and employees not to endanger the health of others and to provide a safe place of employment.

A number of regulations promulgated under the Act are important with respect to the management of hazardous substances (and therefore) hazardous wastes. These are the Hazardous Chemical Substances Regulations¹¹, the Asbestos Regulations¹², the Lead Regulations¹³ and the Hazardous Biological Agents Regulations¹⁴.

The above regulations will have application if the municipality manages hazardous waste.

2.14 THE NATIONAL ROAD TRAFFIC ACT 96 OF 1993

Chapter 8 of the Road Traffic Act deals with the Transportation of Dangerous Goods. Regulations¹⁵ in terms of Section 75 of Act have been promulgated which set out responsibilities in relation to transport of dangerous goods and substances which include hazardous wastes, inter alia: the prohibition of transportation of dangerous goods; the duties of operator, consignor and consignee; exemptions; compatibilities; classification of hazardous substances; driver training requirements; and documentation requirements. A number of South African National Standards have been incorporated into the regulations and thus are enforceable by law. Municipalities should take cognisance of these regulations and should reference them in the relevant section of their waste Bylaws that deal with hazardous waste management.

2.15 **ADVERTISING ON ROADS AND RIBBON ACT 21 OF 1940**

The Act regulates, inter alia, the depositing or leaving of disused vehicles, machinery or refuse within 200m of the centre of a public road.

2.16 **LOCAL GOVERNMENT: MUNICIPAL STRUCTURES ACT 117 OF 1998**

The Act provides for the establishment of the three categories of Municipalities envisaged in the Constitution and the division of powers and functions between these categories. They are the metropolitan municipalities, the local municipalities and the

¹¹ Gazette Notice No R1179, Government Gazette No 16596 of 25 August 1995.

¹² Gazette Notice No R155, Government Gazette No 23108 of 10th February 2002.

¹³ Gazette Notice No R236, Government Gazette No 23175 of 28th February 2002.

¹⁴ Gazette Notice No R1390, Government Gazette 2956 of 27th December 2001. ¹⁵ Gazette Notice No R225, Government Gazette 20963 of 17th March 2000.

district municipalities. The district municipality shares responsibilities with several local municipalities within its jurisdiction and has municipal executive and legislative authority in an area that includes more than one municipality. A local municipality shares municipal executive and legislative authority in its area with a district municipality within whose area it falls.

Under Section 15 of the Act, if an existing municipality is wholly or partially superseded in terms of the Act, the Bylaws, regulations and resolutions of the existing municipality, to the extent that they continue to apply in the area or part of the area of the superseding municipality, must be reviewed and where necessary rationalised by the superseding municipality. Many of the waste Bylaws still need to be reviewed and rationalised.

Section 84(1) of the Act relates to the functions and powers of the district municipality including-

- (a) Integrated development planning for the district as a whole, including a framework for integrated development plans of all municipalities in the area of a district municipality;
- (b) Solid waste disposal sites in so far as it relates to
- (i) the determination of a waste strategy
- (ii) the regulation of waste disposal (iii) the establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in the district'

Whilst the district municipality is responsible for the above functions, general refuse removal remains within the authority of the local municipality. The MEC (for Local Government) may re-allocate the function of refuse removal from the local municipality to the district municipality should the former fail to deliver the required services. The MEC may also adjust the function of the district municipality relating to solid waste disposal sites in so far as it relates to a waste disposal strategy, regulation of waste disposal, the establishment, control and operation of waste disposal sites, bulk waste transfer facilities and waste disposal sites to the local municipality.

Section 88 deals with the co-operation required between the District and Local Municipalities.

2.17 LOCAL GOVERNMENT: MUNICIPAL SYSTEMS ACT 32 OF 2000

The Act confirms the right and the duty of Council to-

Ensure the provision of municipal services to all residents and communities in a financially and environmentally sustainable manner; and promote a healthy and safe environment in the municipality.

The Act provides the enabling framework for planning processes and thus has a direct bearing on waste management activities. Environmentally sustainable service delivery is entrenched by including the following definition in Chapter 1 with respect to the provision of a municipal service in a manner aimed at ensuring that-

- (a) the risk of harm to the environment and to human health and safety is minimised to the extent reasonably possible under the circumstances;
- (b) the potential benefits to the environment and to human health and safety are maximized to the extent reasonably possible under the circumstances; and
- (c) legislation intended to protect the environment and human health and safety is complied with.

Section 4 of the Act deals with Rights and duties of municipal councils and obligates Council to *inter alia-*

- (d) strive to ensure that municipal services are provided to the local community in a financially and environmentally sustainable manner;
- (i) promote a safe and healthy environment in the municipality; and
- (j) contribute, together with other organs of state, to the progressive realization of the fundamental rights contained in Sections 24... of the Constitution.

Chapter 3 deals with the legislative process and the publication of Bylaws.

Chapter 8 deals with Municipal Services. Section 73 contains a general duty for Municipalities to give effect to the Constitution. A distinction between the roles of a 'service authority' and a 'service provider' is made. Municipalities are provided with the ability to choose the most appropriate service provision mechanism from a range of options such as internal departmental delivery to private sector delivery. The procedures and requirements to be applied in taking decisions relating to the external provision of services are specified and the municipality is required to assess the costs and benefits associated with outsourcing including the environmental effects of such a decision. These options have been applied to waste management with some municipalities providing their own collection services and others having contracted these services to private companies.

Municipal planning is rationalised into a single five yearly planning cycle, subject to annual monitoring and review, in which Integrated Development Plans (IPDs) are adopted by Council as their core planning and management instrument. Waste management is a core component of the IDP and is most often supported by an Integrated Waste Management Plan.

2.18 PROVINCIAL LEGISLATION

The Constitution entitles Provinces to pass legislation relating to those areas of concurrent competence, which includes pollution control.

The Waste Bill obligates an MEC within his jurisdiction to ensure the implementation of the National Waste Management Strategy and national norms and standards which the Minister will have set in terms of the Bill. The MEC may do this by publishing provincial norms and standards which must not be in conflict with that which the Minister has published. This may be by way of notice and not necessarily by legislation and thus it is debatable whether provinces will have the need to develop their own provincial waste legislation.

In KwaZulu-Natal (KZN) the KZN Prevention and Management of Waste Bill was developed for discussion in 2006/2007. The development of this legislation would have been mandated in terms of the Provinces' legislative capacity under the Constitution, and not obviously under the Waste Bill. However, further development thereon has been suspended pending the promulgation of the Waste Bill. Regulations to be promulgated under the KZN Bill, including waste information systems, hazardous substances and health care risk waste regulations have also been placed on hold.

The provisions under the KZN Bill will have relevance to Municipal functions so long as they are not in conflict with the National Waste Bill. It is premature to debate those provisions at this stage.

A review of other provincial legislation renders very little in terms of waste management. There are certain references in outdated ordinances such as the Free State Dumping Rubbish Ordinance and the Natal Prevention of Environmental Pollution Ordinance No 21 of 1981. It is put forward that between the Waste Bill, provincial norms and standards and effective waste Bylaws there would not necessarily be a need for a Provincial Act in respect of waste. A notice referred to

under the Waste Bill should be sufficient if the Provinces wished to produce regulations such as the Health Care Waste Regulations that may be specific to the Province.

The Western Cape Province has recently promulgated the Western Cape Health Care Waste Management Act 7 of 2007¹⁶, the date of commencement of which is still to be proclaimed. The Act is administered by the Department of Environmental Affairs and Development Planning (DEADP). Additional comment on this Act is provided in Section 5.

The Gauteng Province has promulgated two sets of regulations in respect of waste: The Gauteng Health Care Waste Management Regulations of 2004 ¹⁷ proclaimed effective from 3rd December 2007 (which are dealt with in more detail in Section 5); and the Waste Information Regulations of 2004 ¹⁸ which came into effect on the date of publication. Both sets of regulations were promulgated in terms of Section 24(c) of the Environment Conservation Act 73 of 1989. The Department has published a list of the persons registered on the Waste Information System of the Gauteng Department of Agriculture, Conservation and Environment (GDACE), in terms of Regulation 7(3) of the Waste Information Regulations, 372 of 2004 ¹⁹.

The Waste Information Regulations deal with the establishment of a Waste Information System (WIS) by GDACE. In terms of the regulations persons belonging to specified categories (Column 1 of Schedule 1 – See Annexure 1) have to apply for registration within a stipulated time period. The registrations so affected are valid for a two year period. Generally the regulations focused on the registration of health care risk waste (HCRW) generators and transporters, transporters of hazardous waste, landfill site operators and HCRW treatment facilities. The ability for the MEC to extend the categories of persons is provided for by the publication of a notice in the provincial gazette. Reporting requirements are set out in the regulations, registration forms are contained in Schedule 2 and reporting requirements are contained in Schedules 3 and 4 (See Annexure 1 for format examples). The provincial department is authorised to conduct audits to verify any information submitted in terms of the regulations.

¹⁶ PN 369 in PG 6489 of 18 December 2007.

¹⁷ GN 3035 in PG 372 of 15 September 2004.

¹⁸ GN 3034 of 15 September 2004.

¹⁹ Provincial Notice 114 of 25 April 2008 under Notice number 1774.

3.1 OBJECTS OF THE BILL

The Waste Bill is pending signature of the President. It seeks to-

Reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters; to provide for national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.

The minimisation of pollution and the use of natural resources through vigorous control, cleaner technologies, cleaner production and consumption practices, and waste minimisation are key to ensuring that the environment is protected from the impact of waste. The Bill recognizes that waste, under certain circumstances is a resource, and offers economic opportunities there from. In addition it is recognised that waste management requires strategies, norms and standards which must seek to ensure best waste practices within a system of co-operative governance.

The Bill does not apply to radioactive waste that is regulated by the Hazardous Substances Act, 1973 (Act 15 of 1973), the National Nuclear Regulator Act, 1999 (Act 47 of 1999) and the Nuclear Energy Act, 1999 (Act No. 46 of 1999); residue deposits and residue stockpiles that are regulated under the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); the disposal of explosives that is regulated by the Explosives Act, 2003 (Act 15 of 2003); or the disposal of animal carcasses that is regulated by the Animal Health Act, 2002 (Act 7 of 2002).

3.2 GENERAL DUTIES OF THE STATE

In fulfilling the rights contained in Section 24 of the Constitution, the State, through the organs of state responsible for implementing this Act (including local authorities) are required to establish uniform measures intended to reduce the amount of waste that is generated. Furthermore where waste is generated it must be re-used, recycled and recovered in an environmentally sound manner before being safely treated and disposed of.

3.3 ESTABLISHMENT OF A NATIONAL WASTE MANAGEMENT STRATEGY

Section 6 of the Bill requires the Minister to establish a national waste management strategy. This strategy must provide-

- (a) objectives, plans, guidelines, systems and procedures relating to the protection of the environment and the generation (including the avoidance and minimisation of such generation), re-use, recycling, recovery, treatment, disposal, use, control and management of waste in order to achieve the objects of the Bill.
- (b) mechanisms, systems and procedures for giving effect to the Republic's obligations in terms of relevant international agreements;
- (c) practical measures for achieving co-operative governance in waste management matters;
- (d) guidance on raising awareness regarding the impact of waste on health and the environment;
- (e) approaches for securing compliance with the requirements of this Act, including the monitoring of compliance; and
- (f) any other matter that the Minister considers necessary for achieving the objects of this Act.

The strategy may include waste reduction targets and must go through a consultative process. All organs of state will be bound by the national waste management strategy to the extent that it is applicable, including municipalities.

3.4 NATIONAL NORMS AND STANDARDS

Section 7 of the Bill requires the Minister to set national norms and standards dealing with the following-

- (a) classification of waste;
- (b) planning for and provision of waste management services; and
- (c) storage, treatment and disposal of waste, including the planning and operation of waste treatment and waste disposal facilities.

Optional national norms and standards that may be set by the Minister are in respect of the following-

- (a) the minimisation, re-use, recycling and recovery of waste, including the separation of waste at the point of generation;
- (b) extended producer responsibility;
- (c) the regionalisation of waste management services; and
- (d) the remediation of contaminated land and soil quality.

The Bill also gives the Minister the power, with the concurrence of the Minister of Finance, to set national standards in respect of tariffs for waste services provided by Municipalities.

3.5 PROVINCIAL NORMS AND STANDARDS

The relevant MEC is responsible for ensuring the implementation of the national waste management strategy and national norms and standards set in terms of Section 8 of the Bill. The MEC may set provincial norms and standards but these must not be in conflict with national norms and standards.

If provincial norms and standards are set, they must facilitate and advance-

- (a) planning and provision of waste management services;
- (b) regionalisation of waste management services within the province;
- (c) minimisation, re-use, recycling and recovery of waste, with the exception of standards that may have national implications or that may have a significant impact on the national economy; and
- (d) treatment and disposal of waste, including the planning and operation of waste treatment and waste disposal facilities, licenced by provincial authorities.

3.6 WASTE SERVICE STANDARDS

Section 9 of the Bill requires that a municipality exercise its executive authority to deliver waste management services (including waste removal, waste storage and waste disposal services) in a manner that does not conflict with the national and provincial norms and standards. Each municipality is required to exercise its executive authority and perform its duty in relation to waste services, including waste collection, waste storage and waste disposal services, by-

- (a) adhering to all national and provincial norms and standards;
- (b) integrating its waste management plans with its integrated development plans;
- (c) ensuring access for all to such services;
- (d) providing such services at an affordable price, in line with its tariff policy referred to in Chapter 8 of the Municipal Systems Act;
- (e) ensuring sustainable services through effective and efficient management;
- (f) keeping separate financial statements, including a balance sheet of the services provided.

The municipality, in exercising its authority, may set local standards in respect of-

(a) the separation, compacting and storage of solid waste that is collected as part of the municipal service or that is disposed of at a municipal waste disposal facility;

- (b) the management of solid waste that is disposed of by the municipality or at a waste disposal facility owned by the municipality, including requirements in respect of the avoidance and minimisation of the generation of waste and the re-use, recycling and recovery of solid waste;
- (c) the directing of solid waste that is collected as part of the municipal service or that is disposed of by the municipality or at a municipal waste disposal facility to specific waste treatment and disposal facilities; and
- (d) the control of litter.

Any Bylaws passes by a municipality intends passing to give effect to these waste service standards must follow a consultative process provided for in Chapter 4 of the Municipal Systems Act.

3.7 WASTE MANAGEMENT OFFICERS

National, provincial and local waste management officers must be designated in writing in terms of Section 10 of the Bill. These officers are responsible for coordinating matters pertaining to waste management within their area of jurisdiction.

3.8 INTEGRATED WASTE MANAGEMENT PLANS

DEAT and the various provincial departments responsible for waste are obliged to prepare integrated waste management plans (IWMPs) in terms of Section 11 of the Bill. Each municipality is required to submit its IWMP to the MEC for approval and is also required to include the approved integrated waste management plan in its IDP (as contemplated in Chapter 5 of the Municipal Systems Act). A municipality may be required by the MEC to amend its IWMP if it does not comply with the Act or if it is in conflict with a national or provincial plan or strategy. A consultative process as contemplated in Section 29 of the Municipal Systems Act must be followed by the municipality before its IWMP is finalised. This may be done as a separate process or as part of the consultative process regarding the development of its IDP. Section 12 of the Bill details the minimum content of an IWMP including how the plan is going to give effect to the Waste Management Act.

Section 13 provides the annual reporting requirements in respect of IWMPs, the contents of which are prescribed.

3.9 WASTE MANAGEMENT MEASURES

3.9.1 Priority Wastes

Section 14 of the Bill allows the Minister to declare a waste to be a priority if the there are reasonable grounds to believe that the waste poses a threat to health, well-being or the environment because of the quantity or composition of the waste and-

- (a) that specific waste management measures are required to address the threat; or
- (b) that the imposition of specific waste management measures in respect of the waste may improve reduction, re-use, recycling and recovery rates or reduce health and environmental impacts.

The MEC may request the Minister to declare a priority waste.

The declaration of a priority waste requires that specific waste management measures to be taken in respect of the waste must be prescribed. These measures may include: the preparation of waste management plans in respect of the priority waste; prohibition of the generation of a priority waste; measures for management, minimisation, storage, re-use, recycling and recovering, treatment and disposal of the priority waste; and requirements for the registration and monitoring of, and reporting on, the priority waste; and any other measures.

3.9.2 General Duty

The application of the waste hierarchy is entrenched by Section 16 wherein holders of waste are required to take all reasonable measures to-

- (a) avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated;
- (b) reduce, re-use, recycle and recover waste;
- (c) where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner;
- (d) manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts;
- (e) prevent any employee or any person under his or her supervision from contravening this Act; and
- (f) prevent the waste from being used for an unauthorised purpose.

General reasonable measures aligned with S28 of NEMA are detailed in Section 16(2). In addition, if a product that is likely to produce hazardous waste is sold to the public, there is an associated responsibility to inform the public of the impact of that

waste on health and the environment. The Minister or MEC may issue regulations to provide guidance on how to discharge these duties or identify specific requirements that must be given effect to.

3.9.3 Reduction, Re-use, Recycling and Recovery of Waste

Section 17 requires persons undertaking an activity involving the reduction, re-use, recycling or recovery of waste to use fewer natural resources than the disposal of that waste and to use a process that causes less harm to the environment than disposal of the waste.

3.9.4 Extended Producer Responsibility

The Bill provides for extended producer responsibility in Section 18. This is the extension of a person's financial or physical responsibility for a product to the post-consumer stage of the product. The Minister may *inter alia* identify: a product or class of products to which extended producer responsibilities will apply; measures that must be taken; and categories of persons that must take these measures.

3.9.5 Waste Management Activities

In terms of Section 19 of the Bill, the Minister may publish a list of waste management activities that have, or are likely to have, a detrimental effect on the environment. Waste management licenses may be required in respect of such activities or requirements and standards may be prescribed. Until such a list is published various activities for which a waste management licence is required have been included in Schedule 1 of the Bill. The MEC, with the concurrence of the Minster, may also publish a list of waste management activities applicable to the respective province. A waste management activity includes-

- (a) the importation and exportation of waste;
- (b) the generation of waste, including the undertaking of any activity or process that is likely to result in the generation of waste;
- (c) the accumulation and storage of waste;
- (d) the collection and handling of waste;
- (e) the reduction, re-use, recycling and recovery of waste;
- (f) the trading in waste;
- (g) the transportation of waste;
- (h) the transfer of waste;

- (i) the treatment of waste; and
- (j) the disposal of waste.

There are therefore a number of waste management activities undertaken by municipalities for which a waste management license may be required.

3.9.6 Storage, Collection and Transport of Waste

Sections 21 to 25 deal with the storage, collection and transport of waste. General requirements for storage of waste are provided which oblige persons to take, at a minimum, steps to ensure that-

- (a) the containers in which any waste is stored, are intact and not corroded or in any other way rendered unfit for the safe storage of waste;
- (b) adequate measures are taken to prevent accidental spillage or leaking;
- (c) the waste cannot be blown away;
- (d) nuisances such as odour, visual impacts and breeding of vectors do not arise; and
- (e) pollution of the environment and harm to health are prevented.

If a person generates general waste that is collected by a municipality, the waste must be placed in the waste in a container approved, designated or provided by the municipality for that purpose and in a location approved or authorised by the municipality. Waste that is reusable, recyclable or recoverable and that is intended to be reduced, re-used, recycled or recovered may not be placed in the said container. The municipal Bylaws must address these requirements.

The provision of waste collection services are subject to the equitable allocation of such services and the obligations to pay for such services. The municipality has the right to limit the provision of general waste collection services if there is a failure to comply with the service conditions, but this limitation must not pose a risk to health or the environment. The municipality has the right to differentiate between categories of users and geographical areas when setting service standards and levels of service for the provision of municipal services. The municipality is required to ensure public access to containers or receptacles for the collection of recyclable wastes as far as reasonably possible.

Persons may only collect waste for removal from premises if they are a municipality or municipal service provider, or if they are authorised to do so by laws and only if they are not prohibited from collecting the waste. The Minster may require any person or category of persons who transports waste for gain to-

(a) register with the relevant waste management officer in the Department, province or municipality, as the case may be; and (b) furnish such information as is specified in that notice or as the waste management officer may reasonably require.

Measures to prevent spillage of waste or littering from a vehicle used to transport waste must be taken. If the waste is transported for the purposes of disposal, the person transporting the waste must, before offloading the waste from the vehicle, ensure that the facility or place to which the waste is transported, is authorised to accept such waste.

If a hazardous waste is transported for purposes other than disposal, the person transporting the waste must, before offloading the waste from the vehicle, ensure that the facility or place to which the waste is transported, is authorised to accept such waste and must obtain written confirmation that the waste has been accepted.

3.9.7 Treatment, Processing and Disposal of Waste

Sections 26 and 27 deal with the treatment, processing and disposal of waste. It is prohibited to -

- (a) dispose of waste, or knowingly or negligently cause or permit waste to be disposed of, in or on any land, waterbody or at any facility unless the disposal of that waste is authorised by law; or
- (b) dispose of waste in a manner that is likely to cause pollution of the environment or harm to health and well-being.

Owners of private land to which the general public has access are required to ensure that sufficient containers are provided for litter from the public and that such litter is disposed of before it becomes a nuisance, causes a complaint or a negative impact on the environment.

3.9.8 Industry Waste Management Plans

Section 28 enables the Minister and the MEC to provide a written notice or publish a notice in the Gazette that directs a category of persons or an industry that generates waste to prepare and submit an industry waste management plan to the Minister for

approval. The decision to direct the submission of industry waste management plans must take into account-

- (a) the impact or potential impact of the waste on health and the environment that is generated by the applicable person, category of persons or industry;
- (b) the environmentally sensitive nature of a natural resource or the amount of natural resources that is consumed in the manufacturing or production processes that result in the waste; and
- (c) the manner in which an industry waste management plan may contribute to-
- (i) the avoidance or minimisation of the generation of waste;
- (ii) the reduction of negative impacts on health and the environment; and
- (iii) the conserving of natural resources.

An industry waste management plan may be required to be prepared by an organ of state, excluding a municipality. The information that may be required to be included in an industry waste management plan is detailed in Section 30. A consultation process for the plan may be directed by the Minister or MEC and the industry waste management plans will be subject to review at a frequency determined by the Minister or MEC.

3.9.9 Contaminated Land

Extensive provisions pertaining to the identification and assessment of contaminated land are dealt with under Sections 35 to 41. The Minister or MEC may issue orders to remediate contaminated land and ownership of such land cannot be transferred without the notification of the Minister or MEC and compliance with any conditions that may be specified. The Minister is also required to maintain a national contaminated land register.

3.10 LICENSING OF WASTE MANAGEMENT ACTIVITIES

Section 43 provides that the Minister (unless otherwise indicated by way of notice in the Gazette), is the licensing authority where-

- (a) the waste management activity involves the establishment, operation, cessation or decommissioning of a facility at which hazardous waste has been or is to be stored, treated or disposed of;
- (b) the waste management activity involves obligations in terms of an international obligation, including the importation or exportation of hazardous waste;
- (c) the waste management activity is to be undertaken by-
- (i) a national department;

- (ii) a provincial department responsible for environmental affairs; or
- (iii) a statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government;
- (d) the waste management activity will affect more than one province or traverse international boundaries; or
- (e) two or more waste management activities are to be undertaken at the same facility and the Minister is the licensing authority for any one of those activities.

The MEC of the province in which the waste management activity is being or is to be carried out is the authority for all other waste management activities. Section 44 requires that the principles of co-operative governance are employed with respect to waste management licence applications. It also provides for the joint issue of integrated licences with other organs of state. This licence may grant approval in terms of the Act and any other legislation as specified in the licence or may be a part of a consolidated authorisation consisting of different authorisations issued under different legislation, that have been consolidated into a single document in order to ensure that the conditions that are imposed by each competent authority are comprehensive and mutually consistent.

Applications for waste management licences must be submitted to the licensing authority. The applicant may be required to appoint an independent consultant to manage an application. The factors to be considered in assessing an application and the decision making process is detailed in Sections 48 and 49. The issuing and contents of a waste management licence are dealt with in Sections 50 and 51. Transfer, review, variations, renewal, suspension, revocation and surrender of licenses are dealt with in Sections 51 to 57 of the Bill.

3.11 WASTE INFORMATION SYSTEMS

In terms of Section 60, the Minister is required to incrementally establish a national WIS for the recording, collection, management and analysis of data and information. The WIS must include-

- (a) data on the quantity and type or classification of waste generated, stored, transported, treated, transformed, reduced, re-used, recycled, recovered and disposed of; and
- (b) a register of-
- (i) waste management activities that have been licensed;
- (ii) the holders of waste management licences authorised to commence the waste management activities recorded in terms of subparagraph (i); and
- (iii) the locations where the licensed waste management activities are or may be conducted.

The WIS may include information on-

- (a) the levels and extent of waste management services provided by municipalities;
- (b) information on compliance with this Act; and
- (c) any other information that is necessary for the purposes of effective administration of this Act.

Section 62 provides for a MEC to establish a provincial waste information system which must at least include the information as required by the national information system.

The Minister is empowered by Section 63 to direct by way of Gazette notice any person to provide information as required by the WIS. The WIS information must be made available by the Minister or MEC, subject to the Promotion of Access to Information Act, 2000 (Act No. 2 of 2000).

3.12 COMPLIANCE AND ENFORCEMENT

Compliance and enforcement is dealt with in terms of Chapter 7 of the Bill. National Environmental Management Inspectors appointed in terms of NEMA may require any person to submit a waste impact report if there are reasonable grounds to suspect that such person has on one or more occasions contravened or failed to comply with this Act or any conditions of a waste management licence or exemption. This contravention must have or be likely to have a detrimental effect on health or the environment, including social conditions, economic conditions, ecological conditions or cultural heritage, or must have contributed to the degradation of the environment.

If a waste management licence review is undertaken in terms of Section 53 of the Act, a waste management officer may, in writing, require any person to submit a waste impact report. The report may have to be compiled by an independent person.

The Bill provides for a substantial number of offenses including, a failure to-

- Treat and dispose of waste in an environmentally sound manner.
- Management of waste so that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts.
- Prevent waste from being used for an unauthorised purpose.
- Obtain a licence for undertaking a listed waste activity or following the standards or requirements in respect of the listed waste activity.
- Disposal of waste to a facility authorised by law.

 Store waste in an inadequate manner, collect wastes without an authorisation or litter.

Persons who control vehicles used for the transport of waste can be found guilty of an offense if they-

- Fail to take all reasonable steps to prevent spillage of waste or littering from the vehicle.
- Intentionally or negligently cause spillage or littering from the vehicle.
- Dispose of waste at a facility which is not authorised to accept such waste.
- Fails to ensure that waste is disposed of at a facility that is authorised to accept such waste.

Penalties are dealt with in Section 68 of the Bill and include fines and imprisonment in addition to penalties that may be imposed in terms of NEMA. In line with NEMA very hefty fines and associated imprisonments are assigned to the offenses in terms of the Waste Bill. For example, failing to ensure that the waste is treated and disposed of in an environmentally sound manner or managing waste in such a manner that that health or the environment is endangered or causes a nuisance through noise, odour or visual impacts carries a fine not exceeding R10 000 000 or imprisonment for a period not exceeding 10 years, or to both such fine and such imprisonment. These fines and sentences are addition to any other penalty or award that may be imposed or made in terms of NEMA.

3.13 GENERAL MATTERS

Section 69 authorises the Minster to make regulations relating to wide array of to waste management matters including those issues that must be governed by a contract between a municipality and any waste management service provider. The MEC may also make regulations for the respective province in consultation with the Minister.

4. WASTE BY-LAWS

4.1 GENERAL

As has been described the legal framework requires municipalities to execute their constitutional mandate by planning and regulating waste removal services; providing

a public service; and monitoring and controlling matters pertaining to waste and the protection of health and the environment. This may be achieved through internal mechanisms or by external service providers where Council has to act as a Service Authority in terms of the Local Government Municipal Structures Act.

The regulation of waste management and associated matters is dealt with by the promulgation of local Bylaws. The matter of existing Bylaws has been complicated by the amalgamation of smaller municipalities into larger municipalities or Metropolitan Councils. Each of the individual municipalities had their own Bylaws dealing with issues such as waste. Although some municipalities ceased to function after their amalgamation, many of their Bylaws were not repealed and thus in a number of administrative areas there may be a more than one set of Bylaws dealing with the same issue. Many of the older Bylaws are extremely difficult to source due to the changes that have taken place in the municipal structures. Although some administrations passed new Bylaws pertaining to their area of jurisdiction, these Bylaws in some cases do not cover all of the issues pertaining to waste management and thus some aspects of the older Bylaws may still remain in effect.

An example of the above scenarios is detailed in the *City of Cape Town Integrated Waste Management Plan* developed by Mega-Tech Inc. The City of Cape Town currently consists of six former municipalities and the Cape Metropolitan Council (CMC) (all of which are referred to as Administrations). At the City of Cape Town level, various Bylaws were promulgated which in turn replaced older Bylaws. The City of Cape Town's Dumping and Littering Bylaw²⁰ deals only with dumping and littering (on a city wide scale), and does not focus on refuse collection, disposal, waste management etc. Therefore when confronted with one of these issues the applicable Bylaws within the jurisdictional area of the Administration in question need to be consulted. One may therefore have to examine Bylaws of municipalities that are no longer in existence.

At the time of developing the Cape Town Integrated Waste Management Plan, Mega-Tech cited some thirteen Bylaws dealing with refuse and waste Bylaws that were still in force.

For the purposes of this study, the Bylaws were examined in each of the focus areas as detailed overleaf.

²⁰ Provincial Gazette 5894 of 21 June 2002.

CITY	BYLAWS
Cape Town	Environmental Health Bylaws, 2003 ²¹
	Draft Integrated Waste Management Bylaw ²²
eThekwini	Refuse Removal Bylaws, 2002 ²²
Johannesburg	Waste Management Bylaws, 2003 ²³
	Public Health Bylaw, 2004 ²⁴
uMhlathuze	Environmental Health Bylaws, 2006 ²⁵
	Solid Waste Bylaws, 2003 ²⁶
Msunduzi	Solid Waste Bylaws, 2005 ²⁷
Newcastle	Cleansing Services Bylaws, 1979 ²⁸

The Bylaws detailed above range from old order legislation such as Newcastle's Cleansing Services Bylaws, to new integrated waste management Bylaws such as the City of Cape Town's Draft Waste Management Bylaws and the City of Johannesburg's Waste Management Bylaws. The latter sets of Bylaws are more closely aligned to the requirements of the Waste Bill. Most of the Bylaws studied have areas of commonality dealing with issues such as waste storage and removal; prohibition of dumping; special provisions relating to builders rubble and hazardous wastes; and offences and penalties. Definitions pertaining to waste vary between Bylaws and only some deal with the requirements for the management of health care waste. The newer Bylaws reflect the change in the traditional end-of-pipe focus of waste management, including issues such as the application of the waste hierarchy, the duty of care and polluter pays principles and waste information systems.

4.2 **DEFINITIONS**

4.2.1 **Waste**

Most of the Bylaws (excluding the Newcastle and eThekwini Bylaws) contain an overarching definition of waste based on that of the Identification of Matter as Waste notice²⁹ promulgated in terms of the ECA. Examples are given overleaf.

²¹ Provincial Gazette 6041 of 30 June 2003.

²² Municipal Notice 47 of 17 October 2002.

No legal reference as yet as the Bylaws is in draft form for public consultation during August 2008.

²⁴ Provincial Gazette 179 of 21 May 2004.

²⁵ Municipal Notice 16 of 14 September 2006.

²⁶ Municipal Notice 47 of 16 October 2003.

²⁷ Provincial Gazette 8 of 17 March 2005.

²⁸ AN 527 of 18 October 1979.

²⁹ Gazette Notice 1986, Government Gazette 12703 of 24 August 1990 as amended.

'WASTE'	
Cape Town Dumping and Littering Bylaw, 2002	Any matter, whether liquid or solid or a combination thereof, which is a by-product, emission, residue or remainder of any product, process or activity and which has been discarded, but excludes any radioactive matter.
Cape Town Draft Integrated Waste Management Bylaw	Any matter, whether gaseous, liquid or solid or any combination thereof, which is from time to time designated by the National Minister of Environmental Affairs and Tourism by notice in the Government Gazette or by the member of the Executive Council of the Province of the Western Cape who is responsible for waste management in the Province of the Western Cape, as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity as defined in the Environmental Conservation Act and amended in Government Notice 292 of 28 February 2003.
Johannesburg Waste Management Bylaws, 2003	Any undesirable or superfluous matter, material, by-product or residue of any process or activity that has been discarded, accumulated or stored for the purpose of treatment, discarding or recycling and may be liquid or solid, may include products that contain a gaseous component and may originate from domestic, commercial, medical or industrial activities, but does not include any gas or gaseous product which may be regulated by national or Gauteng provincial legislation.
uMhlathuze Solid Waste Bylaws, 2003	Any matter or material, whether solid, liquid or containing a gaseous component, or a by-product or residue of any process or activity, which has been discarded, abandoned, accumulated or stored and which is no longer deemed useful by any person.
Msunduzi Solid Waste Bylaws, 2005	Any matter, gaseous, liquid or solid or any combination thereof, including litter, originating from any residential, commercial or industrial area, which - (a) is discarded by any person; (b) is accumulated and stored by any person with the purpose of eventually discarding it with or without prior treatment connected with the discarding thereof; or (c) is stored by any person with the purpose of recycling, re-using or extracting a usable product from such matter, excluding- i water used in terms of section 21 of the National Water Act, 1998 (Act 36 of 1998); ii building rubble used for filling or levelling purposes.

It is noted that most of the definitions include a by-product in the definitions of waste. The Waste Bill however specifically excludes by-product from the waste definition. Furthermore the Bill provides that once a waste is re-used, recycled or recovered it ceases to be a waste. This exception will need to be accommodated in amendments to existing Bylaws or the drafting of new Bylaws applicable to waste.

WASTE BILL DEFINITIONS

WASTE

Any substance, whether or not that substance can be reduced, re-used, recycled and recovered-

- (a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of;
- (b) which the generator has no further use of for the purposes of production;
- (c) that must be treated or disposed of; or
- (d) that is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but-
 - (i) a by-product is not considered waste; and
 - (ii) any portion of waste, once re-used, recycled and recovered, ceases to be waste.

WASTE BILL DEFINITIONS

BY-PRODUCT

A substance that is produced as part of a process that is primarily intended to produce another substance or product and that has the characteristics of an equivalent virgin product or material.

The broad waste definitions as provided in the Bylaws are supplemented by additional waste definitions based on the origin of the waste such as-

Business waste- Waste that emanates from premises that are used, whether lawfully or unlawfully mainly, for commercial, retail, wholesale, entertainment or government administration purposes and also applies to Waste generated by informal traders and residential premises where commercial activities are being conducted (Cape Town Draft Integrated Waste Management Bylaws)- This is in line with the Waste Bill.

Industrial waste- Waste that emanates from premises that are used wholly or mainly for industrial purposes and generate Waste through manufacturing, industrial or fabricating processes, including premises used for agricultural activities, mining activities or the operation of power stations (Cape Town Draft Integrated Waste Management Bylaws) – Industrial waste is not defined in the Waste Bill.

Residential waste- Waste that emanates from premises used wholly or mainly for residential, educational, sport or recreational purposes and may include Recyclable Materials and non-recyclable material, but excludes Hazardous Waste (Cape Town Draft Integrated Waste Management Bylaws) – This is defined as domestic waste in the Waste Bill.

Trade refuse- Refuse generated in the course of the conduct of a business in terms of the Licences and Business Acts, (Provincial Notice No. 97 of 1985) (eThekwini Refuse Removal Bylaws, 2002) – This is defined as business waste in the Waste Bill.

Domestic waste- Waste generated on premises used solely for residential purposes and purposes of public worship, including halls or other buildings used for religious purposes, but does not include business waste, building waste, garden waste or bulky waste (City of Johannesburg Waste Management Bylaws, 2003) – This is a slight variation to that of the Waste Bill.

Builder's refuse- Refuse generated by demolition, excavation or building activities on premises (eThekwini Refuse Removal Bylaws, 2002) – This definition differs from the Waste Bill.

Garden refuse- Refuse generated as a result of normal gardening activities on any premises, including grass cuttings, leaves, plants, hedge clippings and the like, excluding logs, the size of which shall be determined by the municipality from time to time (Msunduzi Municipality Solid Waste Bylaws, 2005) – This is not defined as a separate waste stream in the Waste Bill.

The Waste Bill contains similar origin based waste definitions as the selected local Bylaws but does not differential between business and industrial wastes and does not define nor mention garden waste.

It is recommended that The Bylaws definitions (and names of waste) should be aligned with the Waste Bill for consistency purposes.

WASTE BILL: DEFINITIONS:

BUSINESS WASTE

Waste that emanates from premises that are used wholly or mainly for commercial, retail, wholesale, entertainment or government administration purpose.

[Definition of **Industry**: Includes **commercial activities**, commercial agricultural activities, mining activities and the operation of power stations].

WASTE BILL: DEFINITIONS:

DOMESTIC WASTE

Waste, excluding hazardous waste that emanates from premises that are used wholly or mainly for residential, educational, health care, sport or recreation purposes.

BUILDING AND DEMOLITION WASTE

Waste, excluding hazardous waste, produced during the construction, alteration, repair or demolition of any structure, and includes rubble, earth, rock and wood displaced during that construction, alteration, repair or demolition.

The Waste Bill includes definitions for general waste and inert waste in addition to the 'traditional' waste definitions.

WASTE BILL: DEFINITIONS:

GENERAL WASTE

Waste that does not pose an immediate hazard or threat to health or to the environment, and includes-

- (a) domestic waste;
- (b) building and demolition waste;
- (c) business waste; and
- (d) inert waste.

INERT WASTE

Waste that-

- (a) does not undergo any significant physical, chemical or biological transformation after disposal;
- (b) does not burn, react physically or chemically biodegrade or otherwise adversely affect any other matter or environment with which it may come into contact; and
- (c) does not impact negatively on the environment, because of its pollutant content and because the toxicity of its leachate is insignificant.

Most of the Bylaws differentiate between industrial waste and special wastes which may include hazardous and health care risk wastes. The nature of waste is also used to supplement the waste definitions in the Bylaws such as-

Hazardous waste- Waste containing, or contaminated by, poison, any corrosive agent, any flammable substance having an open flash-point of less than 90 deg C, an explosive, radioactive material, any chemical or any other waste that has the potential even in low concentrations to have a significant adverse effect on public health or the environment because of its inherent toxicological, chemical and physical characteristics (Johannesburg Waste Bylaws, 2003) – This definition differs from the Waste Bill.

Special industrial waste- Refuse, consisting of a liquid or sludge, resulting from industrial operations which in terms of the Council's Sewerage Bylaws may not be discarded into a sewer without the consent of the Head of Department, which consent has been refused (eThekwini Refuse Removal Bylaws, 2002) – There is no definition in the Waste Bill.

A number of the Bylaws include the waste category 'special industrial waste' as defined above. This category of waste does not appear in any other national or provincial legislation or guideline documents. It is therefore noted that the inclusion of a comprehensive hazardous waste definition will circumvent the need for this terminology. As there is presently no legally binding definition of hazardous wastes, the definitions used vary between Bylaws. These should be brought in line with those of the Waste Bill when it is promulgated.

WASTE BILL: DEFINITION:

HAZARDOUS WASTE

Any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment.

The Cape Town Draft Integrated Waste Management Bylaws, the Johannesburg Waste Bylaws, 2003 and the uMhlathuze Solid Waste Bylaws, 2003 deal with health care waste and include relevant definitions in this respect. The definitions vary between Bylaws as can be noted from the table overleaf.

'HEALTH CARE RISK WASTE'	
Cape Town	That portion of healthcare waste that is hazardous and includes
Draft Integrated	infectious waste, pathological waste, sharp waste, pharmaceutical
Waste Management	waste, genotoxic waste, chemical waste, waste with heavy metals,
Bylaw	radioactive waste, and any other health care waste which is defined
	as hazardous in terms of the Waste Management Series: Document
	1: Minimum Requirements/or the Handling, Classification and
	Disposal of Hazardous Waste, as published by the Department of
	Water Affairs and Forestry or any other applicable legislation.
	A very detailed definition of health care wastes is also included
	which provides a definition of each category of health care waste.
Johannesburg	All hazardous waste generated at any health care facility such as a
Waste Management	hospital, clinic, laboratory, medical research institution, dental or
Bylaws, 2003	medical practitioner or veterinarian.
uMhlathuze	All hazardous waste generated at health care facilities such as
Solid Waste Bylaws,	hospitals, clinics, laboratories, medical research institutions, dental
2003	and medical practitioners and veterinarians.

It is interesting to note that the Waste Bill does not contain a separate definition of health care risk waste and there are no special provisions regarding the management of this waste stream. Health care risk waste falls under the definition of hazardous waste contained in the Waste Bill and therefore is within the scope application of the Bill. It is understood that due to the complexity of this waste stream, specific regulations in respect of the management of health care risk waste will be promulgated under Section 69 of the Bill.

Recyclable waste was not dealt with in the older Bylaws. The newer Bylaws that contain limited definitions are the Cape Town Draft Integrated Waste Management Bylaws, the Johannesburg Waste Bylaws, 2003 and the uMhlathuze Solid Waste Bylaws, 2003 as detailed below.

'RECYCLABLE WASTE'	
Johannesburg	Waste which has been separated from the waste stream, and set
Waste Management	aside for purposes of recycling.
Bylaws, 2003	
uMhlathuze	Waste which in the opinion of the council is suitable for re-use,
Solid Waste Bylaws,	reclamation or recycling and which has been set aside for that
2003	purpose.

'RECYCLABLE MATERIAL'

Cape Town
Draft Integrated
Waste Management
Bylaw

Any material that can be converted into raw material that can be reused to make new products or resources

The Waste Bill includes more extensive definitions in respect of recycling including that of by-product as detailed earlier in this section. The Bylaws should be aligned with these definitions. The Waste Bill is more extensive in its definitions of recycle, recovery, re-use, minimise (and by-product, as detailed earlier in this section.) The Bylaws should be aligned with these definitions. The intention behind these activities and that which would require licensing in respect of those activities under the Bill must also be consistent with that which is intended under the listed activities under NEMA. It is recommended that consistent definitions be included in the NEMA regulations ³⁰.

WASTE BILL: DEFINITIONS:

RECYCLE

A process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material.

RECOVERY

The controlled extraction of a material or the retrieval of energy from waste to produce a product.

REUSE

To utilise articles from the waste stream again for a similar or different purpose without changing the form or properties of the articles.

MINIMISATION

When used in relation to waste, means the avoidance of the amount and toxicity of waste that is generated and, in the event where waste is generated, the reduction of the amount and toxicity of waste that is disposed of.

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³⁰ GNR 386 and 387 of 21 April 2006, as amended

4.2.2 Storage, Treatment and Disposal

A definition pertaining to the storage of waste is only provided in the Johannesburg Waste Bylaws, 2003 which is-

The storage of waste for a period of less than 90 days.

The definition of disposal varies in the individual Bylaws. Some Bylaws contain a very basic definition that deals with the landfilling of waste only, whilst others provide for the accumulation, recycling and treatment of waste as well.

'WASTE DISPOSAL FACILITY'	
Cape Town	Accredited waste disposal facility- A site, or premises which is
Draft Integrated	accredited by the Province of the Western Cape or the National
Waste Management	Government and used for the accumulation of and/or Disposal of
Bylaw	Waste.
Johannesburg	Waste disposal facility- Any facility or site which receives waste
Waste Management	for treatment or disposal thereof, and which is operated in terms of a
Bylaws, 2003	permit obtained from the National Department of Water Affairs and
	Forestry or any other competent authority or if such a facility is an
	incinerator, subject to registration or such permission as is required
	by law, and includes a garden waste handling facility.
uMhlathuze	Waste disposal facility- Any facility or site designated by the
Solid Waste Bylaws,	council to receive waste for disposal and includes garden waste
2003	handling facilities.
	Waste handling facility- Any facility that accepts, accumulates,
	handles, recycles, sorts, stores or treats waste prior to its transfer
	for incineration or final disposal.
Msunduzi	Disposal site- A site used for the accumulation of waste with the
Solid Waste Bylaws,	purpose of disposing or treatment of such waste.
2005	
eThekwini	Disposal facility- A site for the disposal of refuse which is owned
Refuse Removal	by the Council or has been approved for the purpose by the
Bylaws, 2002	municipality.

The Waste Bill contains detailed definitions pertaining to waste disposal and waste treatment and recycling facilities. The definition of disposal facility, together with the definition of storage helps to clarify previous conflicting interpretations of the requirements regarding the accumulation of waste at waste generator's premises.

The definition of disposal requires that it takes place at that site or on that premise and the definition of storage is limited to the accumulation of waste and not treatment or disposal. The Waste Bylaws will need to align with these definitions as many more facilities other that landfill sites now accept waste for further management. A waste treatment facility now also includes a facility for the purpose of storage, recovery, treatment, reprocessing, recycling or sorting of that waste. The definition of treatment in the Bill does not include recycling or recovery of benign aspects of the waste that have not undergone a change. There is a greater range of waste management facilities now, than simply the landfill sites that were originally governed under Section 20 of the ECA. The Waste Bylaws will need to be aligned with these definitions.

WASTE BILL: DEFINITIONS:

WASTE DISPOSAL FACILITY

Any site or premise used for the accumulation of waste with the purpose of disposing of that waste at that site or on that premise.

STORAGE

The accumulation of waste in a manner that does not constitute treatment or disposal of that waste.

WASTE TRANSFER FACILITY

A facility that is used to accumulate and temporarily store waste before it is transported to a recycling, treatment or waste disposal facility.

WASTE TREATMENT FACILITY

Any site that is used to accumulate waste for the purpose of storage, recovery, treatment, reprocessing, recycling or sorting of that waste.

INCINERATION

Any method, technique or process to convert waste to flue gases and residues by means of oxidation.

WASTE BILL: DEFINITIONS:

TREATMENT

Any method, technique or process that is designed to-

- (a) change the physical, biological or chemical character or composition of a waste; or
- (b) remove, separate, concentrate or recover a hazardous or toxic component of a waste; or
- (c) destroy or reduce the toxicity of a waste, in order to minimise the impact of the waste on the environment prior to further use or disposal.

4.2.3 Waste Generator

The waste Bylaws in general do not define a waste generator, but rather impose waste duties on the 'occupier' or 'owner' of premises. The only two Bylaws that contain definitions of waste generator are-

Any person who generates or produces waste (Johannesburg Waste Bylaws, 2003).

A household, organisation or business entity, the inhabitant(s), occupant(s) or employees of which generate Waste and includes sorters of waste such as recycling or waste minimisation groups, scrap dealers and buy-back centres (Cape Town Draft Integrated Waste Management Bylaws).

The Cape Town Draft Integrated Waste Management Bylaws also defines Holders of Waste as-

Any person who imports, generates, stores, accumulates, transports, processes, treats, exports or disposes of Waste and also includes recyclers and scrap dealers

It is interesting to note that the Cape Town Draft Bylaws make specific references to scrap metal dealers into the legal framework. This sector has traditionally not been subject to licensing and waste control measures and clarity is sought on whether scrap yard facilities currently require a Section 20 permit in terms of the ECA (See also discussion on waste treatment facilities above).

The Waste Bill does not provide for a definition of waste generator but also uses a definition for the Holder of Waste which is similar to the Cape Town draft Bylaws. The

definition 'holder of waste' is important as it allows accountability to be assigned to a wider range of persons. The Waste Bill captures scrap metal dealers under its definition of recyclers and holders of waste.

WASTE BILL: DEFINITION:

HOLDER OF WASTE

Any person who imports, generates, stores, accumulates, transports, processes, treats, or exports waste or disposes of waste.

4.2.4 Clean Production

None of the Bylaws presently include definitions for clean production. The Waste Bill defines clean production as well as best practical environmental option.

WASTE BILL: DEFINITIONS:

CLEAN PRODUCTION

The continuous application of integrated preventative environmental strategies to processes, products and services to increase overall efficiency and to reduce the impact of such processes, procedures and services on health and the environment.

BEST PRACTICAL ENVIRONMENTAL OPTION

The option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term.

4.3 WASTE OWNERSHIP

The Bylaws vary in provisions regarding the ownership of the waste during the various stages of the management chain.

'WASTE OWNERSHIP'	
Cape Town Draft Integrated Waste Management Bylaw	No specification on waste ownership.
Johannesburg Waste Management Bylaws, 2003	 The person with disposal site permit is owner of all waste disposed there. The generator is owner of the waste until it is collected by the Council, thereafter Council takes ownership (domestic waste). A person abandoning an article is owner thereof.
uMhlathuze Solid Waste Bylaws, 2003	Waste on Council's site is Council property and no person may remove or interfere therewith unless authorised by the Council.
Msunduzi Solid Waste Bylaws, 2005 eThekwini Refuse Removal Bylaws, 2002	 Waste on Council's site is Council property - no person may remove or interfere therewith unless authorised by the Council. Refuse removed by the Council belongs to the Council. Refuse removed by Council. Refuse on Council sites is Council property and no person may remove or interfere therewith.
Newcastle Cleansing Services Bylaws, 1979	 Waste on Council's site is Council property and no person may remove or interfere therewith unless authorised by the Council. Refuse removed by the Council belongs to the Council.

The Waste Bill does not provide for the ownership of waste. Municipalities may want to define waste ownership to allow them to perform their waste management function without interference especially with the establishment of waste recovery facilities and the potential income derived there from and particularly where those facilities and sites are under their control or legal ownership. These issues can be governed in terms of the contracts entered into with service providers, and included in licence conditions of generators.

It is important however to distinguish between the ownership of the waste and the duty of care responsibility of *inter alia* the generator. Statutory liability contained in the duty of care provisions under NEMA and the NWA attracts to a number of persons irrespective of fault.

4.4 GENERATOR'S RESPONSIBILITIES

4.4.1 Integrated Waste Management Plans

IMWPs are provided for in Section 28 of the Waste Bill. The Cape Town Draft Integrated Waste Management Bylaws is in alignment with Section 28 of the Waste Bill and intends placing an obligation on certain persons to submit an IWMP for various activities. The IWMP is defined in the draft Bylaws as-

An Integrated Waste Management Plan which is required by the Municipality in terms of this Bylaw or that is required in terms of any other applicable legislation.

In terms of these Bylaws an IWMP may be required to be submitted in the following circumstances-

- If additional containers are required from Council in respect of the services rendered.
- The generation of industrial waste, priority waste, and hazardous waste.
- Activities pertaining to the sorting of waste, and the undertaking of a recycling, reuse or waste recovery activity including but not limited to scrap dealers, recycling groups and buy back centres.
- On submission of building plans in terms of the National Building Regulations and Building Standards Act, No 107 in regard to provisions for the collection and disposal of the building and other waste and the provision to be made to store the waste on their property.
- The organisation and management of a sporting, entertainment, cultural or religious event which is to take place, on private or public property.
- Waste minimisation clubs formed by residential or business cluster developments and flat complexes who apply for special dispensation as a result of the minimising and reducing the waste that is produced.
- Persons or entities that require a waste management licence in terms of the Bylaws.

The minimum content of the IWMP is prescribed in the draft Bylaws. It is encouraging to note these requirements in the draft Bylaws as it enhances the level of control required at certain generators.

A comparison between the requirements of the IWMP contents is given overleaf.

'INDUSTRY / INTEGRATED WASTE MANAGEMENT PLANS'		
Waste Bill, 2007	Cape Town Draft Integrated Waste	
	Management Bylaws	
The amount of waste that is generated.	Assessment of the quantity and type of waste	
	that will be generated.	
	Services required to store, collect, transport	
	and dispose of the waste.	
	Methods of separation of recyclable and non-	
	recyclable material at source.	
Measures to prevent pollution or	Waste minimisation and pollution prevention	
ecological degradation.	plans.	
Measures or programmes to minimise the		
generation of waste and the final disposal		
of waste.		
	The impact or potential impact on the	
	environment of the waste generated.	
	Type or characteristics of waste produced of	
	an environmentally sensitive nature, and/or the	
	amount of natural resources that are	
	consumed in the manufacturing or production	
	process that result in waste.	
Targets for waste minimisation through	Targets for Waste production through waste	
waste reduction, re-use, recycling and	minimisation, reuse, recycling and recovery	
recovery.	measures or programmes that can minimise	
	the consumption of natural resources and the	
	method disposal of waste.	
Measures or actions to be taken to	Industrial entities- measures or actions to be	
manage waste.	taken to manage waste, the phasing out of the	
The phasing out of the use of specified	use of certain substances, opportunities for	
substances.	reduction of waste generation through changes	
Opportunities for the reduction of waste	to product design, product production or	
generation through changes to packaging,	packaging to reduce resource consumption.	
product design or production processes.		
Mechanisms for informing the public of	Industrial and business entities- provision for	
the impact of the waste-generating	marketing and sales of purchase emerging to	
products or packaging on the	influence customer perception and behaviour	
environment.	and accepting products back from recycling.	
The extent of any financial contribution to		
be made to support consumer-based		
waste reduction programmes.		

'INDUSTRY / INTEGRATED WASTE MANAGEMENT PLANS'	
Waste Bill, 2007	Cape Town Draft Integrated Waste
	Management Bylaws
The period that is required for	
implementation of the plan.	

Waste Bylaws should provide a mechanism for the submission of documented plans from specified waste generators wherein details are provided to the municipality on how the waste generator is going to achieve the objectives of the Waste Bill though it's waste management activities.

4.4.2 Application of the Waste Hierarchy

The Cape Town Draft Integrated Waste Management Bylaws and the City of Johannesburg Waste Management Bylaws, 2003 are the only Bylaws that require waste generators to apply the waste hierarchy as envisaged by Sections 16 and 17 of the Waste Bill.

The Cape Town Draft Integrated Waste Management Bylaws imposes *inter alia* the following general duties on the waste generator-

- To avoid the generation of Waste or where it cannot be avoided to minimise the toxicity and amounts of Waste generated.
- To separate waste with the aim of minimising waste and its impacts and to store the recyclable waste separately from non recyclable waste. In the case of industrial waste they must ensure that the waste is separated into liquids, components and materials that can be treated for recycling or reuse.
- To re-use, recycle or recover Waste where possible.

The City of Johannesburg Waste Management Bylaws cites the underlying principle of the Bylaws to establish a waste management hierarchy in the following order of priority-

(a) Avoidance, waste minimisation and waste reduction; (b) re-use; (c) recycling, reprocessing and treatment; and (d) disposal.

The Bylaw does not place any direct obligation on the waste generator to apply this principle in their waste management practises. It does however provide for the municipality designate which types of waste generated that are separable for the

purposes of recycling as well as the conditions for their separation, storage or collection.

It is interesting to note that some of the older Bylaws require the permission of the Council in order to recycle wastes for example, the eThekwini Refuse Removal Bylaws require that owner receives prior written consent before-

Selling or otherwise disposing of corrugated cardboard, paper, glass or other material being an element of trade refuse, for recycling in a manufacturing process or, with the prior written consent of the City Medical Officer of Health, from using swill for animal consumption.

Although the above provision applied, it was never enforced.

All municipal Bylaws will need to address the application of the waste hierarchy in order to achieve the objectives of the Waste Bill, and indeed application of this principal at a local level is critical to the process.

4.4.3 Waste Storage

All the waste Bylaws contain general provisions regarding the generator's duties with respect to the storage of waste on premises prior to removal. These include-

- The provision of suitable accessible space for waste storage containers.
- The storage of waste in suitable containers which prevent the spillage of waste.
- The maintenance of suitable standards of cleanliness and hygiene in respect of waste containers.
- Waste storage in such a manner that it does not endanger health or the environment or cause a nuisance.
- The covering or securing of containers to prevent pollution.
- The use and misuse of containers.

The Johannesburg Waste Bylaws, 2003 prohibit the storage of waste for more than 90 consecutive days, unless the person has a permit in respect of the premises concerned for a waste disposal facility from the Department of Water and Environmental Affairs in terms of Section 20(1) of the ECA. This has been introduced due to the interpretation of the ECA definitions of waste and landfill site and the associated DEAT requirement that sites used of the storage of waste hold a Section 20 permit or exemption there from. It is noted that this requirement should fall away for smaller facilities as can be seen from the introduction of thresholds related to activities detailed in the Schedules incorporated in the Waste Bill.

4.4.4 Use of Authorised Service Providers

Most of the reviewed Bylaws contain provisions that require that waste service providers are authorised by the respective council. The authorisation process and requirements vary between municipalities (See Section 4.8). In terms of the Bylaws, generators are only permitted to use authorised service providers.

	'AUTHORISED SERVICE PROVIDERS'
Cape Town	Only accredited Service Providers can provide a waste
Draft Integrated	management service.
Waste Management	A person who undertakes a recycling, reuse or recovery activity
Bylaw	or who sort waste – a license required from the Municipality
	(unless this is deemed a national function in line with the Waste Bill).
	A person who undertakes a recycling, reuse, processing,
	treatment or recovery activity or who sorts waste, including but
	not limited to scrap dealers, buy back centres and formalised
	recycling groups, must register – must be accredited by the
	municipality.
Johannesburg	No person may collect or transport any of the following waste
Waste Management	streams listed without a licence-
Bylaws, 2003	(a) business (bulk containerised) waste;
	(b) industrial waste;
	(c) special industrial waste;
	(d) hazardous waste;
	(e) recyclable waste
	(f) health care risk waste; and
	(g) building waste.
uMhlathuze	A person may not collect and transport special industrial, hazardous
Solid Waste Bylaws,	or health care risk waste from the premises on which it was
2003	generated without the written consent of the council.
Msunduzi	No requirements for authorised service providers.
Solid Waste Bylaws,	The requirements for dualieness service providers.
2005	
eThekwini	Refuse removal contractors have to be approved.
Refuse Removal	Troided Terrioval contractors have to be approved.
Bylaws, 2002 Newcastle	No person con remove oppositel industrial refuse from the promise
	No person can remove special industrial refuse from the premises
Cleansing Services	on which it was generated without, or otherwise than in terms of the
Bylaws, 1979	written consent of the Council.

The use of authorised service providers is consistent with the application of the Waste Bill.

4.4.5 Notifications to the Local Authority

Although the new legal waste framework dictates the development of waste information systems, most of the Bylaws contain provisions that enable local authorities to collect and process information relating to the waste service providers operating in their area as well as the hazardous waste streams (special industrial wastes) generated in their area of jurisdiction.

'PROVISION OF INFORMATION TO THE MUNICIPALITY'

Cape Town Draft Integrated Waste Management Bylaw

- Submission of IWMPs.
- Persons that handle, transport, process, treat and dispose of waste for recycling purposes have to the Municipality with a written report on or before the 7th of each month.
- Business and/or agents disposing of waste on behalf of businesses must give a report to the Municipality of the waste disposed at regular intervals as determined by the Director from time to time.
- The owner of the facility where building rubble is disposed of must provide a monthly report of the mass of waste deposited at such facility.
- Waste Generators may be called upon to produce a weighbridge ticket as proof of proper disposal of garden waste.

Johannesburg Waste Management Bylaws, 2003

- The Bylaws contain a detailed requirements on the provision information from any waste generator, licensee, service provider or person involved in or associated with the provision of the municipal service or any commercial service within the municipal area and this information can include:
 - (a) significant sources of waste generation and the identification of the generators of waste;
 - (b) quantities and classes of waste generated;
 - (c) management of waste by waste generators;
 - (d) waste handling, waste treatment and waste disposal facilities.
- Licence holders are required to keep monthly written records on a form prescribed by the Council of the quantities of each category of waste collected and transported during the licence period.

'PROVISION OF INFORMATION TO THE MUNICIPALITY' uMhlathuze Persons generating special industrial, hazardous or health care Solid Waste Bylaws, risk waste to be generated, without notifying the council prior to 2003 the generation of such waste of the composition of such waste, the estimated quantity to be generated, the method of storage, the proposed duration of storage, the manner in which it will be collected and disposed, and the identity of the person removing such waste. • Persons removing special industrial, hazardous or health care risk waste, must submit (at defined intervals) the identity of the remover, the date of such removal, the quantity and the composition of the special industrial, hazardous or health care risk waste removed and the facility at which the waste has been or will be disposed. Msunduzi No submission of information required. Solid Waste Bylaws, 2005 eThekwini Persons who intend to engage the services of an approved refuse Refuse Removal removal contractor have to notify the Council. Bylaws, 2002 • The occupier of premises on which special industrial refuse is generated have to inform the Head of Department in writing of the composition thereof, the quantity generated, how it is stored, and how and when and by whom and to which place, it will be removed. Newcastle The persons generating special industrial refuse have to inform the Cleansing Services Council of quantity generated, how it is stored, and how and when it **Bylaws**, 1979 will be removed.

The enforcement of these provisions in earlier Bylaws was lacking. In addition, in many areas the information that was provided was never collated and processed to provide a meaningful waste information database.

4.5 MUNICIPAL AND COMMERCIAL SERVICES

4.5.1 Mandate to Provide a Service

In accordance with their legal mandate, municipalities are required to provide a waste management service within their area of jurisdiction. The Bylaws for all areas under review provide for the regulation of these services, and the mechanism of regulation is very similar. The municipality is mandated in the Bylaws to provide an exclusive

service for certain waste streams. It is also mandated to regulate other waste streams which may be removed by commercial service providers, subject, in the most part, to some form of registration or authorisation. Most of the Bylaws make it mandatory for the generator to conclude a contract with their elected commercial service provider.

4.5.2 Domestic and Business Wastes

All the Bylaws provide for the compulsory use of the municipal services for the removal of domestic and business / commercial wastes. The provisions for such services are reasonably uniform and address issues such as-

- The duty of the Council to provide a regular removal service.
- The duty of the owner / occupier to pay for the service.
- The provision and use of bags.
- The supply, use and access to special waste containers including the use of bin liners as deemed necessary.
- The provision of adequate containers for storage and the installation of compaction equipment if deemed necessary.
- Storage and frequency of collection to ensure that a hazard to health and the environment is prevented.
- Right of the Council to determine collection schedules, locations for placement of containers, containers for the collection of different types of waste.

4.5.3 Garden Waste

The Bylaws do not make provision for the mandatory use of the Council service for garden wastes. Although the municipality can be requested to provide a service or indeed may provide a service, any person may collect and remove garden waste without registration or authorisation. The generator is normally obliged to remove garden waste from his / her premises within a reasonable time after generation. Some Bylaws allow for the compositing of garden refuse on the generators premises.

The majority of Bylaws require the garden waste, once removed, to be disposed at a garden refuse facility (waste transfer facility) or a waste disposal facility designated by the Council and subject to the payment of a fee (which may be waived if the load is less than 1 tonne).

4.5.4 Building Waste

The Bylaws do not make provision for the mandatory use of the Council service for building waste. Council can be requested to provide a service or indeed may provide the service themselves. Some Bylaws allow any person to collect and remove building waste but others require this to be done by a registered or authorised service provider only (Johannesburg Waste Bylaws, 2003). Generally the Bylaws require building waste to be-

- Kept on the premises where it is generated
- Stored in such a way that it does not become unsightly or cause a nuisance during the accumulation thereof and any windscatter there from promptly retrieved

Some Bylaws provide for the placement of building waste containers on the road verge provided that-

Every receptacle used for the storage and removal of building waste must -

- (a) have clearly marked on it the name, address and telephone number of the person in control of that receptacle;
- (b) be fitted with reflecting chevrons or reflectors which must completely outline the front and the back thereof; and
- (c) be covered at all times other than when actually receiving, or being emptied of, waste so that no displacement of its contents can occur (Johannesburg Waste Bylaws, 2003).

The majority of Bylaws require building waste to be disposed at a waste disposal facility designated for that purpose. The municipality may provide written consent for the recycling of building waste or the use of building waste for land reclamation purposes.

In South Africa there is widespread illegal dumping of building rubble. To address this issue, the Cape Town Draft Integrated Waste Management Bylaws provides a far stricter regulatory framework for the management of building rubble, which starts at the planning stage. When plans are submitted to the municipality for approval (in terms of the National Building Regulations and Building Standards Act, No 107 of 1977), the person submitting the plans has to simultaneously submit an IWMP. This IWMP must provide details on the arrangements that have been made for the collection and disposal of building waste including the provision for the storage thereof. The Building Control Officer is then tasked with checking the disposal of building waste when conducting project inspections. Generators are obliged to

dispose of builders waste at an accredited crushing plant or landfill site or any other Accredited Building Waste Disposal Facility (in terms of the Bylaws). They also have to supply proof to the Building Control Officer that they have disposed of the full mass of the building rubble at an accredited waste disposal facility for that category of waste prior to an occupancy certificate or any final approvals being granted.

The Bylaws further recognise that building waste has the potential to be contaminated with a hazardous material and direct that such waste be deposited at an Accredited Waste Disposal Facility for the treatment and Disposal of Hazardous Waste. They further require that the owner of a facility where building waste is disposed to provide a monthly report on the mass of waste deposited at the facility.

4.5.5 Industrial Waste

The Bylaws do not make provision for the mandatory use of the Council service for industrial waste. Council can be requested to provide a service or indeed may provide the service themselves. Other persons collecting industrial waste are required to be registered or authorised service providers. General provisions relate to storage of industrial waste in a manner that prevents nuisance conditions and the wastes must be collected at regular frequencies.

The Cape Town Draft Integrated Waste Management Bylaws requires industrial waste generators to submit an IWMP in respect of the waste to be generated. The contents of the IWMP are prescribed. Waste Generator generating industrial waste must have a contract with an accredited Service Provider for the collection and disposal thereof. This agreement must be produced on demand and must stipulate removal at least once per week or at a frequency determined by the Waste Management Officer.

4.5.6 Hazardous Waste

Municipalities have traditionally provided limited to no services for the removal of hazardous wastes (special industrial wastes). The services are in the most part rendered by commercial service providers. The Bylaws all require some form of registration or authorisation in this respect.

General provisions pertaining to hazardous waste in the majority of the Bylaws pertain to-

- General storage and removal requirements.
- Notice required to the municipality regarding the generation, composition, storage, removal and disposal arrangement for hazardous waste.
- Notice to the municipality of any changes in respect of the generation of hazardous waste.
- The ability of the municipality to request that an analysis is provided in respect of the hazardous waste.
- The recovery of costs incurred by the municipality in remediating any damage to the environment caused by the discharge of hazardous waste in contravention of the Bylaws from the polluter.

The notice requirements as specified above have never really been imposed by the municipality. Most companies that have communicated with the municipality in this respect have done so as part of their ISO 14 001 legal compliance program. Responses or acknowledgement of this correspondence is seldom received.

The Johannesburg Waste Bylaws, 2003 require that hazardous waste-

Be stored in an approved receptacle and for a period not exceeding 90 days or any other maximum period stipulated by the Department of Water and Environmental Affairs, Gauteng provincial government or Council, before collection.

This stipulation stems from the Department of Water Affairs and Forestry's Minimum Requirements Series: Document One: *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste*. It is not entirely accurate as the above document relates the 90 day storage period to the four different hazard ratings of the waste, each with their own limit in terms of quantities that may be stored. The more hazardous the waste is, the smaller the quantity that can be stored on site. The storage arrangements will more than likely be dealt with under the licensing that may be required in this respect when the Waste Bill is promulgated.

In terms of the Johannesburg Waste Bylaws, 2003, transport of special industrial and hazardous waste must be done in accordance with the conditions of the licence issued and in compliance with-

The relevant SANS codes, in respect of the type of vehicle, the markings and manner of construction of such vehicle, procedures for safety and cleanliness, and documentation

relating to the source, transportation and disposal of such waste, and subject to the requirements of any other legislation.

This inclusion is encouraging although mention could be made of the National Road Traffic Act 93 of 1996, the National Road Traffic Regulations of 2000 and as well as the legally binding SANS documents. Compliance with these requirements in respect of hazardous waste transport is dismally low and the inclusion of these requirements in the Bylaws further strengthens control.

The Cape Town Draft Integrated Waste Management Bylaws requires that hazardous waste is disposed to an Accredited Hazardous Waste Disposal Facility licensed or permitted by National or Provincial legislation. Hazardous waste generators are also required to submit an IWMP to the municipality. In line with the Waste Bill, hazardous waste transporters must ensure that the facility to which the waste is taken is authorised to accept such waste before it is off loaded. The commercial contractor is also required to comply with legislation relating to the handling, storage, use, treatment and transportation of the dangerous goods if the industrial waste is dangerous as defined in SANS 10228 and SANS 10229.

Although the uMhlathuze Solid Waste Bylaws, 2003 also require commercial contractors to adhere to the requirements of the municipality with respect to *inter alia* vehicle markings and documentation, reference is not made to the SANS documents.

The Msunduzi Municipality Solid Waste Bylaws, 2005 prohibits the disposal of hazardous waste at a landfill. Industrial effluent can only be disposed to a landfill site with the prior written consent of the municipality. This is another example a Bylaw requirement that has never been applied.

The Johannesburg Waste Bylaws, 2003, the eThekwini Refuse Removal Bylaws, 2002 and the uMhlathuze Solid Waste Bylaws, 2003 all have similar provisions that require commercial service providers to submit details regarding hazardous waste removal to the Council (some at intervals specified in their licenses). These details include-

- Each removal of hazardous waste.
- The date of removal.
- The quality.
- The composition.

The disposal facility which was used.

4.6 WASTE TRANSPORT

The Johannesburg Waste Bylaws, 2003 and the Cape Town Draft Integrated Waste Management Bylaws contain general provisions that deal with the transport of waste and which cover the issues such as-

- The suitability of the vehicle in terms of the size and construction for the particular waste to be transported.
- The maintenance of the vehicle in a clean, sanitary and roadworthy condition at all times.
- The requirement to cover loose waste in a vehicle.
- The prohibition of spillage of waste from a vehicle.

The Msunduzi Municipality Solid Waste Bylaws, 2005 require that vehicles are not permitted to conveying hazardous waste unless the waste is secure and properly contained so that spillages or contamination is prevented.

Provisions pertaining to the transport of hazardous waste are as described in Section 4.5.6.

4.7 WASTE DISPOSAL

Some of the Bylaws contain general provisions giving the power to the Council direct the disposal of waste to a particular site. This may be important in larger municipalities where a number of disposal sites are located. The engineering status, capacity and lifespan of the various sites may play a role in the direction of wastes to specific sites.

The Cape Town Draft Integrated Waste Management Bylaws are not prescriptive but rather refer to disposal at an Accredited Disposal Facility which is defined as-

A site, or premises which is accredited by the Province of the Western Cape or the National Government and used for the accumulation of and/or Disposal of Waste.

The Johannesburg Waste Bylaws, 2003 state that municipality may, by notice published in the Gauteng Provincial Gazette, direct that a category of waste is disposed at a particular waste disposal facility or waste handling facility. No person may dispose of a category of waste at a waste disposal facility or waste handling

facility which is not designated for receipt of that category of waste (as per notice or designation by the municipality under other empowering legislation prior to the commencement of the Bylaws). Disposal of recyclables specified by municipality (by notice) can take place at a garden waste handling facility if the vehicle capacity is one tonne or less.

The uMhlathuze Solid Waste Bylaws, 2003 give power to the municipality to direct that a category of waste be disposed of at a particular disposal site. Waste generated within the area of jurisdiction of the council must be disposed of at a waste disposal site that has been permitted to accept and dispose of such waste. The Msunduzi Municipality Solid Waste Bylaws, 2005 prohibit the disposal of hazardous waste at a landfill or industrial effluent to landfill except with the prior written consent of the municipality.

The Cape Town Draft Integrated Waste Management Bylaws contains the following general provisions regarding the disposal of waste-

- Disposal may not take place in a manner likely to cause pollution of the environment or to be harmful to human health.
- No person may dispose of waste other than in accordance with the Bylaw and / or National and Provincial legislation.
- Hazardous waste may not be placed in a Municipal container designed for the storage of domestic or business waste.
- Waste and especially hazardous waste may not be burnt except in approved incinerators which have a permit or licence to do so.
- Hazardous waste can only be disposed in accordance with an approved Integrated Management Plan.
- Public bins may not be used for the disposal of Residential, Business, Industrial,
 Garden, Building, Events or Hazardous Waste.
- Waste cannot be dealt with in a manner that causes dust, spillage or litter.

Some of the Bylaws also contain provisions pertaining to the use of the Municipal disposal sites including-

- The hours of operation
- The wastes to be accepted
- Access control arrangements
- The provision of information regarding the waste
- The use of the weighbridge

- Following instructions pertaining to the disposal point of the waste
- The payment of tariffs
- The prohibition of entering a site if intoxicated or bringing intoxicating material into a disposal site
- The prohibition of disposing of waste which is not permitted for such waste
- Lighting a fire on or near a disposal facility.
- The right of Council to refuse a waste for disposal, to refuse entry to the site due to contravention of the Bylaws and to inspect loads and take samples for testing.

4.8 AUTHORISATION OF SERVICE PROVIDERS

The authorisation process for commercial contractors differs between Bylaws. The approval process for some Municipalities is very basic and involves the completion of a one page application and a cursory vehicle inspection. The contractor is then authorised by way of a letter of approval.

Amongst the set of Bylaws reviewed, the Johannesburg Waste Bylaws, 2003 are the only currently enforceable Bylaws that contain specific requirements pertaining to the licensing of commercial contractors.

The following service providers have to hold a licence for to collect and dispose of-

- Business (bulk containerised) waste;
- Industrial waste;
- Special industrial waste;
- Hazardous waste;
- Recyclable waste;
- Health care risk waste; and
- Building waste.

The manner in which a licence is applied for is prescribed and certain fees are payable in respect of a license. In considering the application the municipality must assesses the applicant's compliance (where relevant) with the National Road Traffic Act, 1996, and the Bylaws and must also review the environmental, health and safety record of the applicant. A licence issued in terms of the Bylaws must specify-

- The period of validity and the renewal process;
- The category of waste which the licence holder may collect and transport

- A requirement that all employees, agents and sub-contractors will comply with the Bylaws; and
- A requirement to keep monthly written records (on a form prescribed by the Council) of the quantities of each category of waste collected and transported during the licence period.

The licence application form is included in Annexure 2 as an example of the format of this type of document.

Once a license is issued, a numbered sticker for each vehicle is used for the purpose of confirming that the licence holder is authorised to collect and transport the category of waste specified on the sticker. The stickers vary in colour for each category of waste and must be affixed to each vehicle utilised to provide the service and must be displayed at all times. Wastes cannot be received at a waste facility if the contractor is not licensed nor if the vehicle does not display the required sticker.

As part of the terms and conditions of under the Bylaw, each approved vehicle has to be fitted with a vehicle monitoring system. This monitoring device detects violations such as illegal dumping through the location of the vehicle. It also allows for the linking of vehicles to approved disposal sites. The tracking system is supported by a monitoring service provider who informs the City when vehicles enter "no-go areas" such as illegal dumping spots. They also update the City on tonnage per vehicle deposited at approved disposal sites within the City.

The Municipality has created a website at www.wastehub.co.za where information on licensing can be obtained and where an online application can be completed. The site is informative and interactive and can be accessed fully once a profile has been created. Five hundred and fifty nine companies are currently actively installed on the waste hub site.

The Cape Town Draft Integrated Waste Management Bylaws does not deal with the licensing process but state that service providers can only provide a service-

After having been accredited by the Municipality in accordance with conditions and standards set by the Municipality as set out in the guidelines published by the Municipality from time to time.

The details on the accreditation process are not provided as this will be done in the form of guidelines published by the Municipality. The Bylaws obligate the municipality

to keep a register of all service providers and all entities using a service provider must register this fact with the municipality.

4.9 ESTABLISHMENT OF A WASTE INFORMATION SYSTEM

Although all the Bylaws contain provisions that require the submission of information to the municipality pertaining to wastes generated (hazardous / special industrial) and the use of service providers, few contain specific provisions requiring that the municipality establish a WIS. The Waste Bill mandates the Minister to establish a WIS and also provides for the MEC to establish a WIS. Accordingly with the devolution of powers and functions to the local level and considering the level of control needed at a municipal level, it is quite possible that municipalities will be obligated to generate some form of WIS that captures sufficient detail to manage the waste activities in their area of jurisdiction.

The Johannesburg Waste Bylaws, 2003 require the municipality to establish and maintain a waste management information system which records how waste is managed within the municipal area. The information required to be captured is not defined save for the fact that it may include-

Any information relating to or connected with the management of waste within the municipal area.

The purpose of the information system is defined as to-

- Record data relating to the implementation of the local IWMP and the management of waste in the area.
- Record information pertaining to a host of waste issues such as the significant sources of waste generation; the identification of the generators of waste; the quantities and classes of waste generated; the management of waste by waste generators; waste handling, waste treatment and waste disposal facilities etc.
- Furnish information upon request or as required by law to the Gauteng provincial or national government.
- Gather information for strategic planning.
- Provide information to waste generators, service providers, licensees and the local community in order to facilitate the performance monitoring of the Council, to stimulate research and to assist the Council to achieve the main objects of these Bylaws.

4.10 DUMPING AND LITTERING

All the Bylaws (except for the eThekwini Refuse Removal Bylaws, 2002) contain similar provisions prohibiting the dropping, throwing, depositing, spilling or in any other way discarding any litter into or onto any public place, municipal drain, land, vacant erf, stream, water course, street, road, coastline or on any place to which the public has access, or otherwise dispose of it nor may they allow a person under their control to do so. The dumping and abandoning of unwanted articles is also prohibited.

Owners of land to which the public has access to are obliged to provide containers for litter discarded by the public. Land owners must take reasonable measures to prevent their land from being used for the unlawful dumping of waste.

The municipality is also given the power to recover costs in the respect of removal and rehabilitation of areas where waste has been illegally disposed.

4.11 WASTE MANAGEMENT OFFICERS

Section 10 of the Waste Bill provides for the appointment of local waste management officers to be designated and responsible for co-ordinating matters pertaining to waste management in their jurisdiction.

The Cape Town Draft Integrated Waste Management Bylaws provide for the appointment of Waste Management Officers whose duties include *inter alia-*

- Reviewing and approval of IWMPs.
- Setting out terms and conditions for the generation, minimisation, storage, collection and disposal of waste.
- Receiving and verifying reports in respect of generator and service providers waste activities.
- Issuing of directives and compliance notices.
- Approving of waste management service providers.
- Approving of exemptions in terms of the Bylaws.

Contribution from the Cape Metropolitan Council in this regard was that enforcement must be integrated and focused, not a retroactive, random and ad hoc approach. Areas of general concern should be identified as requiring concerted attention and a strategic approach be implemented to effect change.

The Johannesburg Waste Bylaws, 2003 provide for the appointment of authorised officials and designated officers. These appointees are required to deal with compliance issues and inspections pertaining to the workplaces of licensees.

The Bylaws should therefore address the appointment of waste management officers.

4.12 MISCELLANEOUS PROVISIONS

The Cape Town Draft Integrated Waste Management Bylaws provide for specific waste management measures in respect of certain activities. One of these activities is the holding of events. This includes the management of a sporting, entertainment, cultural or religious event which is to take place, on private or public property. The Cape Town municipality have identified that events have the potential to impact on the environment if the waste is not managed correctly and have placed an obligation on the organisers (or the owners or persons in control over premises) to submit an IWMP five days prior to the event.

In line with the Waste Bill, the municipality is also able to declare a waste a priory waste if special management measures are required. This may be a useful tool for a municipality to use should a particular waste stream become a problem in the area of jurisdiction but which waste may not be a problem nationally.

4.13 OFFENCES AND PENALTIES

Failure to comply with the provisions of the Bylaws constitutes an offence to which various fines are assigned. Traditionally these fines have been low and not viewed as preventing unlawful activities from taking place. Offences and penalties should be aligned with the offence provisions in NEMA and the Waste Bill.

Smaller household type offences can be set by the municipality in accordance with the Adjustment of Fines Act 101 of 1991.

As stated under 4.11 above the approach to enforcement must be integrated and consistent.

5.1 GENERAL

Legislation pertaining to health care risk waste (HCRW) has been promulgated but the legislation resides both at various levels of government and in different departments. The Waste Bill does not define HCRW *per se* but the definition of hazardous waste is broad and can therefore include HCRW. The provisions pertaining to hazardous waste therefore apply to HCRW. It is understood that it is the intention of DEAT to develop regulations in respect of this waste stream. Depending on the level of detail of these regulations, it there may be no need to promulgate specific Bylaws dealing with the management of HCRW.

The Western Cape is the only province to promulgate an Act dealing with HCRW. The Western Health Care Waste Management Act 7 of 2007 (although is not in effect as yet), will deal with *inter alia* the responsibilities of generators, transporters, treaters and disposers of health care waste and staff safety and training requirements. The Act assigns duties of Municipalities and directs them to-

- Enforce the relevant provisions of this Act within its area of jurisdiction.
- Notify the Department of any incident of spillage or illegal dumping.
- Perform audits of generators, transporters, treaters and disposers of health care waste.
- Report annually to the Provincial Minister the number of incidents of illegal dumping and spillage of HCRW, the number of incidents of illegal dumping of HCRW pursued in a court of law, and the number of incidents of illegal dumping of HCRW successfully convicted in a court of law.

5.2 CAPE TOWN

The Cape Town Draft Integrated Waste Management Bylaws includes HCRW in their definition of hazardous waste and also includes a detailed description of health care waste which is-

Any waste-

- (a) generated by or derived from medical care or medical research; or
- (b) that has been in contact with blood, bodily fluids or tissues from humans, or infected animals from veterinary practices;
- (2) any waste under subparagraph (a), including but not limited to, the following categories of waste:

Infectious waste: Waste that is suspected to contain pathogens in a sufficient concentration or quantity to cause disease in susceptible hosts.

This category includes cultures and stocks of infectious agents from laboratory work; waste from surgery and autopsies on corpses with infectious diseases; waste from infected patients in isolation wards; waste that has been in contact with infected patients undergoing haemodialysis; infected animals from laboratories; sanitary waste materials and tissues (including swabs) and any other instruments or materials that have been in contact with infected persons or materials.

Pathological waste: Includes all human tissues, organs, body parts, foetuses, blood and body fluids and those of infected animals.

Sharp waste: Includes items that could cause cuts or puncture wounds and includes, but is not limited to, needles, hypodermic needles, scalpels and other blades, knives, infusion sets, saws, broken glass and nails, and the word "sharps1" has a corresponding meaning.

Pharmaceutical waste: Includes expired, unused, spilt and contaminated pharmaceutical products, drugs, vaccines and sera that are no longer required and that need to be disposed of appropriately.

Genotoxic waste: Is highly hazardous waste that may have mutagenic, teratogenic or carcinogenic properties. This waste type includes certain cytostatic drugs as well as vomit, urine or faeces from patients treated with cytostatic drugs, chemicals and radioactive material. Chemical waste: Includes discarded solid, liquid and gaseous chemicals.

Waste with heavy metals: Includes, but is not limited to mercury waste from thermometers, blood-pressure gauges, residues from dentistry; cadmium waste from discarded batteries, reinforced wood panels used in radiation proofing, and drugs containing arsenic.

Pressurised container waste: Includes pressurised cylinders and cartridges used in health care facilities to store gases.

Radioactive waste: Includes solid, liquid and gaseous materials contaminated with radionuclides, including waste produced as a result of procedures such as in vitro analysis of body tissue and fluid, in vivo organ imaging and tumour localisation and various investigative and therapeutic practices.

General waste: Is a generic term for waste that, because of its composition and characteristics, does not pose a significant risk to public health or the environment if managed properly. This waste type typically consists of plastics, paper, food and liquids not considered to be infectious or contaminated with hazardous chemicals or radioactivity.

Health care risk waste is defined as-

That portion of healthcare waste that is hazardous and includes infectious waste, pathological waste, sharp waste, pharmaceutical waste, genotoxic waste, chemical waste, waste with heavy metals, radioactive waste, and any other health care waste which is defined as hazardous in terms of the Waste Management Series: Document 1: Minimum Requirements/or the Handling, Classification and Disposal of Hazardous Waste, as published by the Department of Water Affairs and Forestry or any other applicable legislation;

Specific management measures in respect of HCRW are not defined save for the measures for the management of hazardous wastes which is the same approach as the Waste Bill.

Environmental Health Bylaws³¹ have also been promulgated by the Cape Town City Council and are administered by the City's Health Department. The Bylaws deal with a number of activities of which Medical Waste Management is one. A number of obligations are placed on generators such as-

- The storage of medical waste in leak-proof, sealable containers and ensuring that containers which are used for the storage of sharps and other clinical items which can cause cuts or punctures or injections are, in addition, rigid and punctureresistant.
- Making arrangements for the disposal of medical waste by a person permitted to dispose of medical waste in the Bylaw.
- The maintenance of an up-to-date written record of medical waste removed from their premises in the format as prescribed from time to time by the Council.
- Obtaining from the disposer of the medical waste written notification that the medical waste has been disposed of and, including this is their written records.

Transporters are obliged to inter alia-

- Not remove medical waste from the containers in which the generator has stored the medical waste.
- Transport medical waste in vehicles which are (i) capable of containing the medical waste; (ii) designed to prevent spillage; (iii) constructed of materials which are easy to clean and to disinfect; (iv) capable of being secured in order to prevent unauthorised access.
- Deliver medical waste only to a person and site permitted to dispose of medical waste.
- Maintain a written record in respect of each collection and delivery of medical waste, which they must update simultaneously with each collection and delivery, and such record must be in the format as prescribed from time to time by the Council and must keep such record for a period of one year from the date on which the medical waste is delivered.

In terms of the Bylaws medical waste may only be disposed of by a person who holds a permit to operate a hazardous waste site in terms of Section 20 of the ECA,

³¹ PG 6041, Notice 13333 of 30 June 2003.

or who is authorised to incinerate medical waste by means of equipment which has been approved in terms of the Atmospheric Pollution Prevention Act, 45 of 1965, or both; and who complies with all terms and conditions attached to such permit and authorisation. Up to date written records of each delivery of medical waste to the disposal site must be kept for a one year period in the format as prescribed by the Council. Annexure 3 contains examples of the forms used by the municipality for administrative purposes.

It is not clear whether HCRW will continue to be regulated through the Environmental Health Bylaws of 2003 once the Cape Town Draft Integrated Waste Management Bylaws are promulgated but it is recommended that the waste is dealt with by one department.

5.3 JOHANNESBURG

The Gauteng Province has promulgated the Gauteng Health Care Waste Management Regulations of 2004 which recently came into effect. They are very substantial and deal with all aspects of HCRW management including the treatment of HCRW. The regulations provide that a municipality must ensure that a service is provided for the safe collection and treatment of HCRW generated by minor generators. The mechanism by which municipalities are going to ensure this service provision is not defined and service delivery will be a challenge for municipalities, particularly in the rural areas.

The regulations required the submission of municipal HCRW plans to Province before 1st October 2006. This deadline has obviously not been met as the Bylaws only came into effect in 2008. The Provincial Department has to support municipalities to comply with the above requirements and must provide a Guideline for the development of Municipal HCRW management plans to assist municipalities in meeting their obligations.

HCRW is defined in the Johannesburg Waste Bylaws, 2003 and is dealt with to a limited extent as part of the general provisions relating to special industrial, hazardous and HCRW. Persons removing and disposing of HCRW are required to have a licence to cover these activities.

In the application for a license, the following documents have to be provided where relevant-

- Certified copy of GDACE (Gauteng Department of Agriculture, Conservation and Environmental Affairs) approval as a Health Care Risk Waste Transporter;
- Certified copy of GDACE approval as a health Care Risk Waste Transfer Facility (if going to store Health Care Risk Waste);
- Certified copy of a valid permit from DEAT for the storage of the Health Care Risk
 Waste:
- Certified copy of GDACE approval as a Health Care Risk Waste Treatment Facility Certified copy of a valid permit from the Chief Air Pollution Officer for the Health Care Risk Waste Treatment Facility.

There is therefore duplication of approvals and reporting requirements by provincial and local levels of government.

5.4 UMHLATHUZE

HCRW is defined in the uMhlathuze Solid Waste Bylaws, 2003 and is dealt with to a limited extent as part of the general provisions relating to special industrial, hazardous and HCRW. Persons removing HCRW are required to have a written consent to do so and must report on such removals at intervals as prescribed by the municipality. Persons removing HCRW must dispose of it at a site designated by the council but requires that HCRW is disposed by incineration. This specification originates from the Minimum Requirements Documents, which are outdated in this instance. New non-burn technologies for the treatment of HCRW have been authorised and in fact, there are no HCRW incineration facilities in KZN and thus compliance with the Bylaws is not possible. The Bylaws should make provision for the use of authorised alternative technologies.

There is also an overlap between municipal departments with respect to HCRW regulation. The uMhlathuze Environmental Health Bylaws³² deal with a number of activities of which Medical Waste Management is one. An extensive definition of the various components of HCRW is defined. Duties and responsibilities of a generator, transporter, processor and disposer of health care waste are specified including packing and storage requirements, the adoption of a waste management plan, the

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³² MN 16 of 14 September 2006.

keeping of up to date records of health care waste generated, treated, transported or disposed. No licensing activities in terms of the Bylaws are required.

5.5 ETHEKWINI

No Bylaws pertaining to HCRW are in effect and HCRW are not dealt with under the eThekwini Refuse Removal Bylaws, 2002.

5.6 NEWCASTLE

No Bylaws pertaining to HCRW are in effect and HCRW are not dealt with under the Newcastle Cleansing Bylaws of 1979.

5.7 MSUNDUZI

No Bylaws pertaining to HCRW are in effect and HCRW are not dealt with under the Msunduzi Municipality Solid Waste Bylaws, 2005.

6. THE ETHEKWINI SCHEDULED TRADE AND TRADE EFFLUENT PERMITTING PROCESS

6.1 GENERAL

The eThekwini Water and Sanitation and Health Departments embarked on a project to develop an improved industrial permit and audit system for the municipality. This project was funded by the Norwegian Agency for Development Cooperation (NORAD) and was initiated in 2003. At present a number of companies are participating in the new permitting process which is expected to be rolled out to all industries in the eThekwini Municipality over a number of years³³.

The permit has a cross media approach and addresses all aspects of environmental and health and safety issues. As it is a joint process between the Health and Water and Sanitation Departments, permitting and compliance monitoring is co-ordinated resulting in an efficient allocation of available resources.

³³ The reason for referencing this process is that the new system has a substantial component pertaining to waste, the implementation of environmental management systems and five year improvement plans.

To assist companies with the detailed permit application process, eThekwini Health and Water and Sanitation Departments have developed permitting guideline documents. The documents are very user friendly and describe how to:

- Complete process block assessments;
- Carry out risk assessments;
- Complete a permit application;
- Develop an environmental management system;
- Do an annual report; and
- Conduct an audit.

This approach would also have to ensure that it is aligned with and empowered under, *inter alia*, the NEMA regulations, the Occupational Health and Safety Act and the Waste Bill in due course.

6.2 PERMIT APPLICATION

The permit application consists of the following modules-

- (i) Permit Holder details
- (ii) Process, Plant and Production
- (iii) Air Quality
- (iv) Occupational, Health and Safety
- (v) Environmental Noise
- (vi) Major Hazard Installation
- (vii) Emergency Response and Contingency Plan
- (viii) Waste
- (ix) Stormwater and Groundwater
- (x) Trade Effluent Discharges
- (xi) Conservancy / Trade Effluent Discharge by Road Tanker

The application is therefore very comprehensive in nature when compared to the previous approach for these permits.

The waste module addresses all aspects of waste management. The identification of waste streams generated at the premises is a key aspect of the application. The applicant is required to conduct a process block assessment which should identify all the process / activities taking place on site. These activities then need to be broken down into 'blocks' and all the inputs (e.g. raw materials) and outputs (e.g. air

emissions) detailed. Waste is a significant part of assessment process and a list of waste storage and waste emissions must be provided for each of the process block diagrams submitted. Controls and preventative measures must also be detailed.

In addition to the above, a Waste Audit must be conducted and a report containing the information as detailed overleaf below be submitted in this respect-

- Identification of all sources of all waste [waste code as described in the application; hazard rating; volumes; which process block].
- Condition and loading within all Sand, Oil and Grease Traps [inspection requirements; servicing frequency; conditions of each trap].
- Composition / constituents of each waste stream [main pollutants; estimated concentration ranges; description of how the pollutant is generated; analyses].
- Anticipated /estimated volumes of each stream [volumes per month].
- Classification of each waste stream as per DWAF Requirements [type of disposal site; precautionary approach to be adopted].
- Methods of storing and handling waste both on-site and offsite [position where wastes are stored; manner of storage; methods of handling; control measures to reduce risks].
- Identification of opportunities for waste minimisation, recycling or reuse of waste,
 improved housekeeping [initiatives implemented; cleaner production].
- Details of any waste treatment practiced onsite [process; technology].
- Details of any toxicity testing completed [methods of assessment to be agreed].
- Final disposal point of the waste [business entity; address].
- System of record keeping for tracking of each waste including whether disposal certificates are available to account for all wastes passed to third parties [type of record kept].

Comprehensive details of the waste management system must be provided. This should include-

- Cradle-to-grave tracking;
- Operational controls;
- Documentation;
- Staff training and procedures;
- Systems of corrective and preventive action;
- Management and instrumentation controls;
- Improvement plans; and
- Emergency response or contingency plans.

The information required to be submitted is closely aligned to an IWMP and thus, with a few minor modifications thereto, this submission could be aligned with the requirements of the Waste Bill.

6.3 REPORTING REQUIREMENTS

The information as required for the permit application is replicated in the permit that is issued to the facility. In the annual report (required to be submitted in terms of the permit) an annual waste study must be conducted and all the required information provided to the municipality. In this way, the municipality is able to track the management system and the effectiveness thereof, including waste recycling and minimisation initiatives.

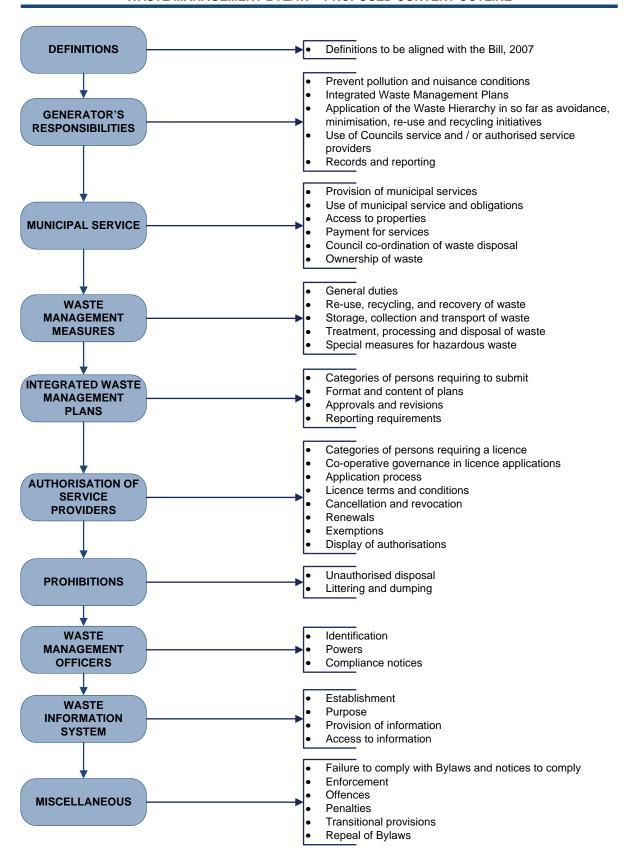
7. CONCLUSION

The Waste Bill changes the traditional focus of waste management from waste disposal to integrated waste management. Municipalities will need to review the Bill to determine their approach for both achieving the objectives of the Bill and to fulfil their mandates in respect of their obligations there-under. The new order Waste Bylaws show fairly close alignment with the requirements of the Bill and only minor amendments may be required. Older order Bylaws will require a complete revision to address the integrated approach of the Bill. There is also certain refinement required under the Bill to ensure consistency with NEMA and the NWA, or *vice versa*. The Waste Bill mandates the development of standards and thus the current Minimum Requirement guideline documents may be superseded or, if they are to be continued, they will have to be updated in accordance with the provisions of the Waste Bill. The Bylaws will thus need to the amended accordingly.

Monitoring and control over waste generators, transporters and smaller treatment and recycling facilities is more practical at the local level. Waste Bylaws should therefore address monitoring and compliance, which may be best addressed by the submission and monitoring of IWMPs. Cognisance should be made of the integrated approach being developed and applied in the eThekwini Municipality, as waste should not be viewed in isolation. The integrated approach avoids duplication in permit applications and administrative matters. It also allows for co-operative governance with joint compliance programs which enhances the efficient use of regulatory resources.

For discussion purposes a proposed draft Waste Bylaw outline is provided overleaf.

WASTE MANAGEMENT BYLAW - PROPOSED CONTENT OUTLINE



ANNEXURE ONE

Administrative Documents Pertaining to the Gauteng Health Care Waste Management Regulations of 2004

SCHEDULE 1

PERSONS REQUIRED TO REGISTER IN TERMS OF REGULATION 4

COLUMN 1	COLUMN 2
Generator A person who generates more than 20 (twenty) kilograms per day of HCRW calculated monthly as a daily average	Within 90 (ninety) days of the date of commencement of these regulations in the event that a person generated waste up to the day preceding the date of commencement of these regulations.
	In all other cases before a person starts to generate waste.
Transporter (a) A person who transports more than 10 (ten) kilograms per day of HCRW calculated monthly as a daily average	Within 90 (ninety) days of the date of commencement of these regulations in the event that a person transported waste up to the day preceding the date of commencement of these regulations.
	In all other cases before a person starts to transport waste.
(b) A person who transports more than 10 (ten) kilograms per day of hazardous waste calculated monthly as a daily average	Within 180 (one hundred and eighty) days of the date of commencement of these regulations in the event that a person transported waste up to the day preceding the date of commencement of these regulations.
	In all other cases before a person starts to transport waste.
Landfill site operator (a) A person who operates a GLB+, GLB-, GMB+ or GMB- landfill site, as contemplated by the Minimum Requirements for Disposal by Landfill	Within 180 (one hundred and eighty) days of the date of commencement of these regulations in the event that a person operated such landfill site up to the day preceding the date of commencement of these regulations.
	In all other cases before a person starts to operate such landfill site.
(b) A person who operates a H:H or H:h landfill site, as contemplated by the Minimum Requirements for Disposal by Landfill	Within 180 (one hundred and eighty) days of the date of commencement of these regulations in the event that a person operated such landfill site up to the day preceding the date of commencement of these regulations.
Treatment facility A person who operates a HCRW treatment facility	In all other cases before a person starts to operate such landfill site. Within 90 (ninety) days of the date of commencement of these regulations in the event that a person operated such treatment facility up to the day preceding the date
	of commencement of these regulations. In all other cases before a person starts to operate such treatment facility.

SCHEDULE 2

REGISTRATION FORM FOR A GENERATOR IN TERMS OF REGULATION 4 FORM 1

	HCRW	Generator		
Name:				
☐ New Registration	☐ Renewal of Registration	☐Update of Information	☐ De- registration	
□ Public	☐ Private			
Major municipali	ty within which generator r	resides:		
Postal address:				
Physical address:				
Telephone: ()		Fax: ()		
E-mail address:				
Contact person:				
Designation of co	ontact person:			
Latitude:	S	Longitude:	I	E
Number of beds:		Percentage occupancy: % per annum		
Expected min wa kg/m	ste:	Expected max waste: kg/m		
Date: DD /	MM / YYYY	Signature:		
FOR OFFICIAI	L USE ONLY			
WIS No: GPG		Date: DD / MM /	YYYY	

REGISTRATION FORM FOR TRANSPORTERS IN TERMS OF REGULATION 4 FORM 2

	Waste Transporter				
Name:					
☐ New Registration	☐ Renewal of Registration	☐Update of Information	☐ De- registration		
Waste type being transported:			☐ Health Care Waste		
Postal address:					
Physical address	3:				
Telephone: ()	Fax: ()			
E-mail address:					
Contact person:					
Designation of c	contact person:				
Date: DD /	MM / YYYY	Signature:			
		1			
FOR OFFICIA	L USE ONLY				
WIS No: GPT		Date: DD	O / MM / YYYY		

REGISTRATION FORM FOR TREATMENT FACILITIES IN TERMS OF REGULATION 4 FORM 3

	Health Care R	isk Wa	ste Treatment Facility		
Name:					
☐ New Registration	☐ Renewal of Registration		Update of Information	☐ De- registration	_
Waste type bein transported:	ig		☐ Health (Care Waste	
Treatment type:					
Major municipa	ality within which facility	ty resid	es:		
Postal address:					
Physical address	s:				
Telephone: ()		Fax: ()		
E-mail address:					
Contact person:					
Designation of o	contact person:				
Permit number	(ROD):		Capacity (kg/hr):		
Latitude:	·	S	Longitude:	E	
Date: DD /	/ MM / YYYY		Signature:		
FOR OFFICIA	AL USE ONLY				
WIS No: GPF			Date: DD / MM	/ YYYY	_

REGISTRATION FORM FOR LANDFILLS IN TERMS OF REGULATION 4 FORM 4

		Lan	dfill			
Name:						
☐ New Registration	☐ Renewal of Registration		Update of Information		☐ De- registration	
Type of landfill:	□ H:H □ H:h	\Box GLB ⁺		\square GMB ⁺	\Box GMB $^{-}$	
Ownership:	□ Public	[☐ Private			
Major municipali	ty within which lan	ndfill resid	es:			
Postal address:						
Physical address:						
Telephone: ()			Fax: ()			
E-mail address:						
Contact person:						
Designation of co	ontact person:					
Permit number (R	ROD):		Area (square	e meters):		
Latitude:	•	S	Longitude: _		·	E
Date: DD /	MM / YYYY		Signature:			
FOR OFFICIAL	L USE ONLY					
WIS No: GPL _			Date: D	D / MM /	YYYY	

SCHEDULE 3 PERSONS REQUIRED TO REPORT IN TERMS OF REGULATION 5

Person	Reporting required
HCRW transporter	Total weight per month of HCRW removed from Gauteng for treatment or disposal in another province
Hazardous waste transporter	Total weight per month of hazardous waste removed from Gauteng for treatment or disposal in another province
H:H and H:h landfill	Total weight of waste per month received for disposal whether generated in Gauteng or in another province
GLB+; GLB-; GMB+ and GMB landfill	Total weight of waste per month received for disposal whether generated in Gauteng or in another province
HCRW treatment facility	Total weight per month of HCRW received for treatment whether generated in Gauteng or in another province

SCHEDULE 4

REPORTING REQUIREMENTS IN TERMS OF REGULATION 5(1)

1. HCRW transporter

A report submitted by a HCRW transporter in terms of Regulation 5(1) must be in the form and contain the information set out below:

1.1 Reporting frequency, deadline and other requirements:

- (a) A HCRW transporter must prepare a report every 3 (three) months, coinciding with the quarter ending March, June, September and December respectively of every year.
- (b) A HCRW transporter must submit a report to the Department no more than 2 (two) weeks after the end of each quarter.

1.2 Information reporting:

- (a) A report must contain at least the following information:
 - (i) the date (month and year) on which the report is submitted and the period to which it applies;
 - (ii) the total amount (expressed in kilograms) of HCRW collected and transported for the quarter and monthly totals (for each of these) for each month within the quarter;
 - (iii) the waste type collected and transported within the quarter and monthly totals of the amount of each type of waste collected and transported; and
 - (iv) the WIS number issued to the HCRW transporter.

1.3 Waste classification terminology to be used:

HCRW

1.4 Code lists for description of waste:

- (a) Weights must be reported in kilograms (kg).
- (b) Data must be submitted in a compatible format to the system used by the Department

2 Hazardous waste transporters

A report submitted by a hazardous waste transporter in terms of Regulation 5(1) must be in the form and contain the information set out below:

2.1 Reporting frequency and deadline:

(a) A hazardous waste transporter must prepare a report every 3 (three) months, coinciding with the quarter ending March, June, September and December respectively of every year.

(b) A hazardous waste transporter must submit a report to the Department no more than 2 (two) weeks after the end of each quarter.

2.2 Information reporting:

A report must contain at least the following information:

- (i) the date (month and year) on which the report is submitted and the period to which it applies;
- (ii) the total amount (expressed in kilograms) of hazardous waste transported for the quarter and monthly totals (for each of these) for each month within the quarter;
- (iii) the waste type collected and transported within the quarter and monthly totals of the amount of each type of waste transported; and
- (iv) the WIS number issued to the hazardous waste transporter.

2.3 Waste classification terminology to be used:

Subdivision of hazardous waste into the 9 SABS classes is required for reporting waste to the waste Information system.

3. Landfill operators (H:H; H:h; GLB+; GLB-; GMB+; and GMB)

A report submitted by a landfill operator in terms of Regulation 5(1) must be in the form and contain the information set out below:

3.1 Reporting frequency and deadline:

- (a) A landfill operator must prepare a report every 3 (three) months, coinciding with the quarter ending March, June, September and December respectively of every year.
- (b) A landfill operator must submit a report to the Department no more than 2 (two) weeks after the end of each quarter.

3.2 Information reporting:

A report must contain at least the following information:

- (i) the date (month and year) on which the report is submitted and the period to which it applies;
- (ii) the total amount (expressed in kilograms) of waste disposed of at the landfill site for the quarter and monthly totals (for each of these) for each month within the quarter;
- (iii) the waste type disposed of at the landfill site within the quarter and monthly totals of the amount of each type of waste disposed of; and
- (iv) the WIS number issued to the landfill operator.

3.3 Waste classification terminology to be used:

For waste disposed to landfills the following waste classification types must be used:

- (ii) General waste,
- (iii) Hazardous waste.

3.4 Weighbridges:

- (a) A hazardous waste landfill site must use a weighbridge to generate the data required for reporting.
- (b) An existing general landfill site may for a period of 3 (three) years after the date of commencement of these regulations, report using an estimated mass based on densities as specified in Table 1 below.
- (c) After the expiry of the 3 (three) year period permitted in terms of sub-item (b), a general landfill site must use a weighbridge to generate the data required for reporting.
- (d) A general landfill site may apply to the Department in writing for a temporary exemption from the requirement of a weighbridge set out in sub-item (c), not less than 6 (six) months prior to the expiry of the 3 (three) year exemption period.
- (e) The Department may at its discretion grant a temporary exemption contemplated in subitem (c) for a period not exceeding three years

Table 1: Densities used in calculating the mass based on volume

Waste Type	Typical contents/containerisation	Typical Density kilogram/m ³
Domestic waste, non- compacted	Mixed domestic waste	200
Domestic waste, compacted	Mixed domestic waste in compactor vehicles	500
Mixed domestic waste	Contents of closed wheelie bins (e.g. 190-660 litres)	108
	Contents of bags (e.g. 160-240 litres)	95
	Contents of skips (e.g. 6-10m³)	70
Organic waste (garden	In closed plastic containers (190 litres)	250
waste and food waste)	In ventilated containers/bags	205
	Contents of compactor vehicles	450
	Organic waste from kitchens for animal fodder	840
Mixed bio-degradable domestic waste	Contents of closed wheelie bins (e.g. 190-660 litres)	60
	Contents of compactor vehicles	400
	Bulky waste in skips	90
Paper and cardboard	Corrugated cardboard	88
	Newspapers and magazines	200
	Office paper (compacted)	475
Other waste	Glass from glass containers	325
	Electronic waste	235
	Batteries	1375
Inert waste	Sand, concrete, bricks and fibre glass	1500
Mixed non-compacted industrial waste	Paper and plastic	150
	Cardboard, gypsum boards, sawdust, textiles, leather	400
	Timber, demolition waste	600
	Casting sand, slag, ashes	1500
Commercial waste - non- compacted	Mixed waste from shops, offices, hospitals, restaurants, parks and garden waste	200
Other waste	Non-specified	1000

4. HCRW treatment facility

The provisions of Item 1 of this Schedule apply mutatis mutandis to a HCRW treatment facility.

ANNEXURE TWO

Licence Application form in terms of the Johannesburg Waste Bylaws of 2003





APPLICATION FOR A LICENCE TO PROVIDE WASTE MANAGEMENT SERVICES

PART 1 – Particulars of Applicant: Name of Applicant (specify by typing in grey box below):			
Type of legal entity: Company Sole Proprietor Proprietor	artnership CC Other (specify)		
If applicant is a company or a close corporation, state date of incorporation	oration:		
If applicant is a company or a close corporation, state registration nu			
How long have you been operating your business for:			
Physical address (complete by typing in grey box below):			
Postal address including postal code (complete by typing in grey box	s below):		
Telephone Number:	Facsimile Number:		
After Hours Contact No (1):	Name of After Hour Contract Person:		
After Hours Contact No (2):	Name of After Hour Contract Person:		
e-mail Address:	Registration/ID Number:		
Income Tax Number:	VAT Number:		
Property Rates Account Number	Utilities Account – Water:		
	Utilities Account: Electricity.		
Preferred Method of Correspondence: Post Facsimile or e-mail			
(Note: The City shall only accept documents by fax where such documents do not exceed 10 pages)			

FOR OFFICIAL USE ONLY

Date of Receipt Application Number Processing Official Licence Application Fee Cheque, Proof of Payment

PART 2 - Type of Licence Applied for:				
PART 2(A) - Type of waste streams to be handled:				
Specify the nature of waste in respect of which waste management services will be provided: (by clicking in the appropriate check boxes below:)				
☐ Business Waste ☐ Industrial Waste ☐ Domest☐ Recyclable Material ☐ Health Care Risk Waste ☐	_			
(See section 24 of Waste Management By-laws)				
PART 2(B) – Nature or description of Services to be provided: (by clicking in the appropriate check boxes below:) Accumulating Collecting Managing Recycling Sorting Storing Treating Disposing Buying Selling Other (specify – by typing in grey box below. NB: to move to next grey box either tab or click in grey box)				
PART 3 – Details of Business Site where services will be operated: Owner of the Site: [where infrastructure required to operate the business is kept]: Owner of the Site: [where waste is stored before being transported to landfill sites]:				
Written consent of owner or landlord to be attached: Name of owner/landlord:				
(tick type of legal entity) ☐ Company ☐ Sole Proprietor ☐ Partnership ☐ CC ☐ Other (specify) Physical address where infrastructure required to operate the business is kept (complete by typing in grey box below):				
Physical address where waste is stored before being transported to landfill sites: (complete by typing in grey box below):				
Type of waste disposed at this site (complete by typing in grey box below):				
Details of site:				
Telephone Number:	Facsimile Number:			
After Hours Contact No (1):	Name of After Hour Contract Person:			

PART 4 - Vehicle details Number of Vehicles less than 3500GVM*: Number of Vehicles greater than 3500GVM*: (* GVM = Gross Vehicle Mass)				
Current Areas of Operation (suburbs) if localized:				
PART 5 - Fixed site details				
Number of sites:				
Staff employed at sites:				
Nature of Waste Stream: (e.g. rubble etc)				
Description of Activities: (e.g. recycling etc)				
PART 6 – Banking details (Please provide bank details:) Name of Bank: Type of Account: Current Account Savings Account Other specify Account Number: Branch Code:				
PART 7(A) - Board of Directors				
(Please provide full particulars of the Executive and No	on-Executive Directors of Applicant:)			
Name of Director (1):	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Income Tax Number:			
Name of Director (2):	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Income Tax Number:			
Name of Director (3):	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			

Income Tax Number:

(If above space not sufficient for Directors details – please provide particulars in business plan)

PART 7(B) - Operational Management				
(Please provide full particulars of the Managing Team in Applicant :)				
Managing Director:	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Qualifications:			
Financial Executive:	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Qualifications:			
Operations Executive:	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Qualifications:			
PART 7(C) - Ownership of the Applicant (If a	applicable)			
(Pease provide full particulars of the Shareholders/Me				
Name of Owner/member/sole proprietor (1):	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Equity Percentage:			
Name of Owner/member/sole proprietor (2):	ID Number:			
Residential Address:	Telephone Number:			
	Cell Number:			
	E-mail Address:			
	Equity Percentage:			
Name of Owner/member/sole proprietor (3):	ID Number:			

Residential Address:	Telephone Number:
	Cell Number:
	E-mail Address:
	Equity Percentage:
Name of Owner/member/sole proprietor (4):	ID Number:
Residential Address:	Telephone Number:
	Cell Number:
	E-mail Address:
	Equity Percentage:
Name of Owner/member/sole proprietor (5):	ID Number:
Residential Address:	Telephone Number:
Residential Address.	
	Cell Number:
	E-mail Address:
	Equity Percentage:
Name of Owner/member/sole proprietor (6):	ID Number:
Residential Address:	Telephone Number:
	Cell Number:
	E-mail Address:
	Equity Percentage:
(If space not sufficient – please provide particulars in Business Plan)	

PART 8 - Particulars of Licences currently held

(The Applicant must set out the Disposal)

Type of Waste Licenced	Particulars of Licensing Agent	Licence / Reference Number

PART 9 – Acknowledgement of information parts of the last of the l	hereby confirm that the information provided in		
PART 10 - Signoff section			
Please complete the section below, print the completed electronic application, sign as appropriate and post / deliver the original to: (if possible attach all relevant documentation – see documentation section below - with completed application form). Please also e-mail the completed electronic application to contact@wastehub.co.za.			
Physical:	Postal:		
Waste Hub	PO Box 2982		
City of Johannesburg	SAXONWOLD		
3 rd Floor, North Wing	2132		
11 St Andrews Road			
PARKTOWN			
2193			
I, (Name), confirm that I am duly authorized to sign the			
waste license application on behalf of (Applicant's name).			
I also confirm that I have read and understood the terms and conditions of the Waste Licensing By-law.			
SIGNATURE	APPLICANT NAME		
DESIGNATION	DATE		

PART 11 - Attachments to the Application Form

Your Application must be accompanied by the following information and documentation:

1. General Documentation (required with all Applications)

The Business Plan (see the invitation to Apply for particulars that must be included in the business plan);

Certified copy of Company Registration Documentation (Memorandum and Articles of Association);

Certified copy of Certificate of Commence Business (For Pty Ltd)

Certified copy of Tax Clearance certificate (not more than 6 months old as at date of application);

Certified copy of Roadworthiness Certificate per vehicle used (Road Traffic Inspectorate);

Certified copy of Certificate of Satisfaction Inspection (vehicle soundness - Certificate of Fitness);

Certified copy of Proof of up to date payment of municipal rates, taxes and services;

Certified copy of Confirmation if insurance for the vehicles;

Certified copy of Land use rights (permit for authorized rights/use of premises);

2. Hazardous waste

(Defined as waste containing, or contaminated by, poison, any corrosive agent, any flammable substance having an open flash-point of less than 90 deg C, an explosive, radioactive material, any chemical or any other waste that has the potential even in low concentrations to have a significant adverse effect on public health or the environment because of the inherent toxicological, chemical and physical characteristics)

Certified copy of Department of Transport registration certificate per vehicle used for the transport of dangerous goods;

Certified copy of fire brigade permit for vehicles used for the transport of flammable materials;

3. Health Care Risk waste

(Defined as hazardous waste generated at any health acre facility such as a hospital, clinic, laboratory, medical research institution, dental or medical practitioner or veterinarian)

Certified copy of GDACE (Gauteng Department of Agriculture, Conservation and Environmental Affairs) approval as a Health Care Risk Waste Transporter;

Certified copy of GDACE (Gauteng Department of Agriculture, Conservation and Environmental Affairs) approval as a health Care Risk Waste Transfer Facility (if going to store Health Care Risk Waste); Certified copy of a valid permit from DEAT for the storage of the Health Care Risk Waste; Certified copy of GDACE (Gauteng Department of Agriculture, Conservation and Environmental Affairs)

approval as a Health Care Risk Waste Treatment Facility (if going to treat Health Care Risk Waste);
Certified copy of a valid permit from the Chief Air Pollution Officer for the Health Care Risk Waste
Treatment Facility (if going to treat Health Care Risk Waste)

4. Business Waste

(Defined as waste, other than hazardous waste, health care risk waste, building waste, industrial waste, garden waste, bulky waste, recyclable waste and specialty industry waste, generated on premises used for non-residential purposes)

No additional documentation required;

5. Industrial Waste

(Defined as waste generated as a result of manufacturing, maintenance, fabricating, processing or dismantling activities, but does not include building waste, business waste, dailies, special industrial waste, hazardous waste, health care risk waste or domestic waste)

No additional documentation required;

6. Domestic Waste or Dailies

(Defined at waste generated on premised used solely for residential purposes and purposes of public worship, including halls or other buildings and putrescible waste generated by hotels, restaurants, food shops, hospitals and canteens that must be collected on a daily basis, to prevent the waste from decomposing and presenting a nuisance or an environmental or health risk)

Certified copy of valid Pikitup contract;

7. Recyclable Waste

(Defined as the use, re-use or reclamation of material so that it re-enters an industrial process rather than becoming waste)

No additional documentation required;

8. Building Waste

(Defined as all waste produced during construction, alteration, repair or demolition of any structure, and includes building rubble, earth, vegetation and rock displaced during such construction, alteration, repair or demolition)

No additional documentation required;

9. Reclamation Facility

Certified copy of City of Johannesburg permit, in term of the Public Health By-laws, to operate a waste recycling plant;

11. Landfill Facility

(Defined as land where waste is disposed of)

Certified copy of the DWAF (Department of Water and forestry) permit for the landfill;

ANNEXURE THREE

Administrative Documents Pertaining to the Environmental Health By-laws of 2003 (Cape Town)