

Department of Water Affairs Briefing on the National Waste Management Strategy: November 2011

29 May 2012



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Background to the National Waste Management Strategy (NWMS)

- The National Environmental Management: Waste Act (Act no 59 of 2008) was promulgated on 01 July
- The Act calls for the Minister to develop and publish a NWMS within two years of the coming into effect of the Act
- The NWMS is a government wide strategy based on the waste hierarchy approach to waste management therefore requires input and collaboration from other government departments, including industry
- Departments are required to put in place measures to ensure that government meets the goals and objectives as set out in the Act in the next five years



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NWMS OBJECTIVES

The NWMS must achieve the objectives of the Act, summarised below:

- preserving natural resources by minimizing their consumption and preventing pollution
- waste minimization, which includes recycling, re-using, and recovering waste
- treatment and safe disposal of waste as a last resort
- effective delivery of waste services
- remediation of contaminated land
- integrated waste management reporting and planning
- promoting public awareness of the impact of waste
- achieving compliance with waste legislation and policy



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The Main Challenges for DWA in terms of the Protection of the Water Resources

- The complexity of the waste stream and failure to manage it properly may lead to pollution of ground water and surface water
- Outdated waste management infrastructure, with declining levels of capital investment and maintenance
- Lack of compliant landfills and hazardous waste management Facilities hinders the safe disposal of all waste streams.
- Illegal dumping of waste in water resources
- Waste treatment options are more expensive than the cost to dispose of the waste



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Areas of Engagements and Collaborations between DWA and DEA in terms of the NWMS

- DWA was involved in the development and consultation process of the NWMS
- Integrated waste disposal Authorisation i.t.o the Memorandum of Agreement
- Authorisation for remediation of Contaminated land i.t.o the Standard Operational Procedure
- Participating in reducing the number of unauthorised landfill sites
- Ensure proper management and disposal of sewage sludge emanating from wastewater treatment facilities i.t.o the Sludge Guidelines



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Integrated waste disposal Authorisation

Existing MoA between DWA and DEA regarding disposal site authorisation in terms of Section 20 of the Environmental Conservation Act, 1998, (Act 73 of 1989) as amended, dated 23 January 2008, stipulated the roles and responsibilities for the two Departments on the issuing of waste management licences.



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Waste Management: Co-operative Authorisations in terms of
CHAPTER 5 (from 01 July 2009)
National Environmental Management: Waste Act, 2008
LICENSING OF WASTE MANAGEMENT ACTIVITIES

- Section 49(2) : A decision to grant an application for a waste management licence in respect of a waste disposal facility is **subject to concurrence of the Minister of Water Affairs**
- Section 50(3) : the issuing of a waste management licence for a waste disposal facility is subject to the inclusion in the licence of any conditions contained in a **Record of Decision issued by the Minister of Water Affairs regarding any measures** that the Minister of DWA considers necessary to protect a water resource as define in the NWA

Integrated Waste Disposal Authorisations

DWA was part of the technical committee in developing **Draft National Standards and Regulations**

- **Draft National Standard for Disposal of Waste to Landfill** (Government Gazette 34414 Notice Number 432) including new **Containment Barrier Designs developed by DWA**
- **Draft Standard for Assessment of Waste for Landfill Disposal** (Government Gazette 34415 Notice Number 433)
- **Draft Waste Classification and Management Regulations** (Government Gazette 34417 Notice Number 435)
- **Draft National Norms and Standards for the Storage of Waste** (Government Gazette 34418 Notice Number 436)

Revision of the Hazardous Waste Classification System

- The Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste (MRHW) focuses on ground and surface water as the receptors and the new system also consider the impacts on air quality and health and safety;
- The Globally Harmonised System of classification and labelling will be used as the baseline for the initial determination of whether a waste classifies as hazardous (SANS 10234) in the new classification System
- New Liner requirements were developed by DWA
- The new classification system will replace the DWA MRHW.



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STANDARD OPERATING PROCEDURE(SOP) between DWA and DEA REGARDING THE REMEDIATION OF CONTAMINATED LAND IN TERMS OF NEM:WA (ACT 59 OF 2008) AND THE NWA (ACT 36 OF 1998)

PURPOSE

Integrate the procedure of remediating contaminated land, resulting in one remediation order that contains both parties requirements, while each party retains control and responsibility for areas under their mandate

Establish processes and procedures to be followed between the parties in issuing remediation order in terms of section 38(2) of the NEM:WA and section 19 of NWA and subsequent legislation that may replace them

Establish a streamlined and clear administrative process that correctly allocates roles and responsibilities to each party, to the provinces and DWA regional offices in relation to each authorities area of competence and mandate

Eliminate any duplication of work, and

Improve service delivery




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Statistics of all RoD's issued by DWA per Quarter for Waste Disposal Sites and Contaminated land

Third Quarter 11/12	Fourth Quarter 11/12	First Quarter 12/13
<ul style="list-style-type: none"> • Received: 19 RoD's • Issued: 18 RoD's • In process: 10 RoD's 	<ul style="list-style-type: none"> • Received: 43 RoD's • Issued: 35 RoD's • In process: 18 RoD's <p style="text-align: center; font-size: small;">13 of the 35 RoDs Issued were for Contaminated Land</p>	<ul style="list-style-type: none"> • Received: 22 RoD's • Issued: 16 RoD's • In process: 24 RoD's <p style="text-align: center; font-size: small;">1 of the 16 RoDs issued was for Contaminated Land</p>




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Ensure proper management and disposal of sewage sludge emanating from wastewater treatment facilities

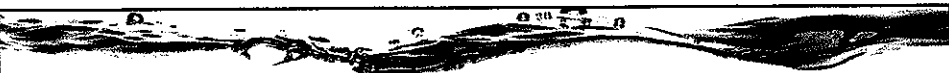
The following sewage sludge guidelines were developed by DWA and the WRC:

- Volume 1:** Selection of Management Options
- Volume 2:** Requirements for the agricultural use of sludge
- Volume 3:** Requirements for the on-site and off-site disposal of sludge
- Volume 4:** Requirements for the beneficial use of sludge
- Volume 5:** Requirements for the thermal sludge management practices and for commercial products containing sludge




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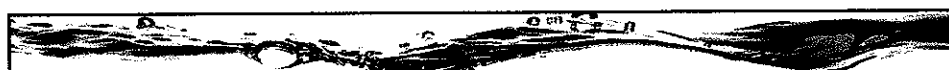
Comments and Concerns from DWA on the NWMS.

- With the development of the new standards for disposal of waste to landfill. Restrictions will specify the types of waste restricted or prohibited from disposal – will it not enhance the illegal disposal of waste
- With the development of Norms and Standards for certain sectors on disposal – ensure the protection of the water resource with specific water related conditions
- DWA developed an Integrated Water and Waste Management Plan document which is a requirement for Water Use Licence Applications
- Please note that DWA is also in the process to develop a Waste Discharge Charge System





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Information Slides



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WASTE DISCHARGE CHARGE SYSTEM

- Promote the sustainable development and efficient use of water resources
- Promote the internalisation of environmental costs by impactors
- Create financial incentives for dischargers to reduce waste and use water resources in a more optimal way recover the costs of mitigating the impacts of waste discharge on water quality

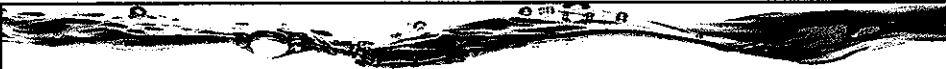
Includes some Non-Point Sources (NPS)

- Disposal of effluent to land or facility
 - e.g. tailings dams, irrigated effluent, evaporation ponds
- Disposal of waste to land or facility
 - e.g. landfill, waste-rock dumps
- Controlled land-use activities
 - e.g. confined animal facilities




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Financial & Economic Implications of the WDCS

- WDCS is a response to a pollution problem imposing a cost on society
- WDCS is not a penalty system and does not incorporate the use of spot fines
- WDCS is an economic instrument for achieving more efficient use of the water resource



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New Containment Barriers developed by DWA

**High Risk
Class A Landfill:
H:H and H:h**

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New Containment Barriers developed by DWA

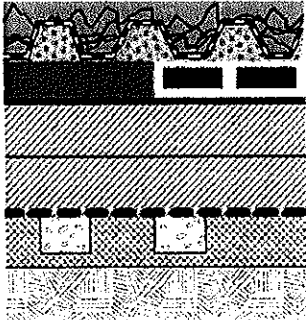
**Moderate Risk
Class B Landfill:
G:L:B+**

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New Containment Barriers developed by DWA

Low Risk - Class C Landfill: G:L:B+




Waste body

- 300 mm thick finger drain of geotextile covered aggregate
- 100 mm Protection layer of silty sand or a geotextile of equivalent performance
- 1.5 mm thick HDPE geomembrane
- 300 mm clay liner (of 2 X 150 mm thick layers)

Under drainage and monitoring system in base preparation layer

In situ soil



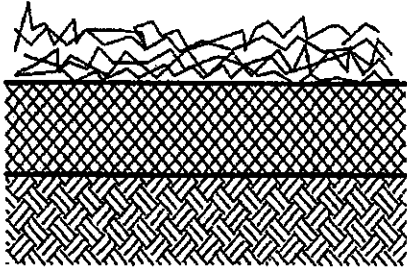
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New Containment Barriers developed by DWA

Class D – Inert Landfill: G:S:B-


Inert waste that does not undergo any significant physical, chemical or biological transformation after disposal



Waste body

150mm Base preparation layer

In situ soil



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