

Waste Information Today

A Quarterly newsletter that is aimed at communicating the Department of Environment, Forestry and Fisheries (DEFF) Chemicals and Waste Management projects

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Welcome to the 47th issue of waste information today.

In this issue, we mention the revised and updated NWMS which is currently out for public comments, we present feedback on the recently held Plastic Colloquium, as well as the HCRW annual stakeholder workshop. We also discuss the harmful impacts of cigarette butts on the environment provide information on the Persistent Organic Pollutant (POPs) Regulations and the international day for the preservation of the ozone layer 2019.

Please feel free to forward any comments to sawic@environment.gov.za
We look forward to hearing from you.

Regards,
Waste Information Team

The National Waste Management Strategy out for public comments

The National Department of Environment, Forestry and Fisheries, through the Minister Barbara Dallas Creecy, gazetted the draft the National Waste management Strategy (NWMS) for public comments. The NWMS is developed in terms of the National Environmental Management: Waste Act (NEMWA), Section 6. The initial strategy developed in terms of NEMWA was in effect since 2012 and is due for review every five years, the review was initiated in late 2017. The strategy was gazetted on the government gazette for 60 days commenting period from the 03 December 2019-03 February 2020.

Comments and inputs may be submitted

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The draft NWMS can also be accessed at sawic.environment.gov.za under "draft documents for comment"

The Plastic Colloquium

The Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy, hosted The Plastic Colloquium on the 21 and 22 November 2019 at Birchwood Hotel in Boksburg. The Colloquium was attended by 631 Attendees from the Plastics Industry, NGO's, Faith Based Organisations, Waste Pickers, 3 Spheres of Government, Civil Society and Research Bodies and Academia.

The theme of the Plastic Colloquium was: **Understanding the Plastics Sector and Identifying Policy Measures.**

Plastics are undeniably a key environmental concern, particularly in terms of impacts on ocean health and wildlife. It is, however, also important to acknowledge the value plastic plays across many aspects of society.

Plastics also have properties that allow utilisation in a vast range of products and sectors, from packaging, to use in the automotive industry, electronic and electrical equipment, textiles and construction industry (OECD, 2018).

The main objectives of the colloquium were to:

- Create a platform to engage representatives of government, private sector, civil society, academia and labour in building more effective partnerships to address plastic waste management.
- Facilitate discussion on sustainable management of plastic waste in the country.
- Create a platform for the exchange of information on best practice, and identify and address bottlenecks and challenges with regards to management of plastic waste in the country.
- Create a platform to engage representatives of government, private sector, civil society, academia and labour in building more effective partnerships to address plastic waste management.
- Facilitate discussion on sustainable management of plastic waste in the country.

The colloquium was positioned around six key working groups as proposed by the Minister, these were as follows:

- 1) Product standards and certification
- 2) Product design, development and innovation
- 3) Integration of the informal waste economy
- 4) Biodegradable and compostable plastics
- 5) Infrastructure
- 6) Consumer Education & Awareness

Day 1 of the Colloquium marked the official opening and focused on exhibitions and presentations whilst day 2 included a keynote address by the Minister, an expert panel discussion and breakaways to commissions, followed by report backs and closure.



Above: Minister Barbara Creecy delivering a keynote address

In terms of the outcomes and way forward, a comprehensive report and analysis is to be generated on the conclusion of the colloquium and will inform policy and legislation on plastic waste

It is also anticipated that the colloquium will foster strengthened partnership across all sectors towards the sustainable management of the plastic lifecycle while adopting a circular economy approach as well as create an inclusive and collaborative mechanism to promote effective management of plastic waste.



Right: Minister Barbara Creecy viewing exhibitions

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Health Care Risk Waste Sector Workshop

The Department hosted the annual stakeholder workshop with the health care risk waste (HCRW) sector on 3 December 2019. The workshop was attended by over 50 participants including representatives from private and public healthcare facilities, HCRW treatment facilities, HCRW treatment technology suppliers and government officials.

The workshop aimed to facilitate the engagement of government with the sector as well as engagement within the sector itself. It furthermore provided a platform for attendees to share local experiences and lessons learnt. Topics of the presentations provided included:

- MediClinic - Healthcare waste minimisation
- Office of the Health Standards Compliance (OHSC) – An overview;
- National Health Laboratory Services (N HLS) – HCRW management in laboratories;
- Imperative Waste Solutions – Glass recycling project;
- DEFF – feedback from ISWA 2018 focussing on HCRW management in emergency conflict in Iraq and
- DEFF – HCRW treatment figures 2018.

Discussions were also held on the management of laboratory waste and whether it is considered infectious or chemical waste as well as the relationship between HCRW treatment facilities and government (national and provincial). Further topics discussed included transforming into a paper society by migrating waste manifest systems from paper to electronic. Stakeholders were requested to propose topics for future discussion.



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The Impacts of Cigarette Butts on the Environment



Studies site that approximately 49% of men and 34.1% women in South Africa are consumers of cigarettes. With the current rise in consumer environmental awareness and resulting change in behaviours such as the switching of plastic straws to paper straws, people tend to be oblivious to one of the main pollution problems which is affecting the environment and that is the careless disposal of cigarette filters.

How are cigarette filters detrimental to the environment? Cigarette filters enter marine environments and are ingested by various wildlife such as the Albatross in which the plastic body of the filter lodges in the intestines and air ways of animals leading to starvation and suffocation of the animal. Filters also contain approximately 4000 chemicals such as lead, ammonia arsenic and various other toxins and carcinogens which leach out to the surrounding environment.

Cigarette filters are made up of a compound called Cellulose Acetyl which is not biodegradable. However, cellulose alone is capable of being decomposed. The movement towards the biodegradation of cigarette filters is to remove the acidic component (acetyl) from cellulose acetyl through chemical processes. By achieving this, the product of the reaction is cellulose.

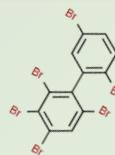
Given the limited exploration of cigarette filter remediation, the “Radical Mycology Project” has brought forward a very unique discovery in which fungi are able to utilize their digestive enzymes to break down the cellulose acetate which is ultimately the cigarette filter. However, this ground breaking discovery has only been implemented on a laboratory scale and may set the pathway for efficient cigarette filter degradation (<https://www.radicalmycology.com/>).

With such advancements, there is a definite need to undertake further research into the pollution and impacts associated with cigarette filter disposal. Administrators of buildings, worksites and households can aid by providing disposal mechanisms to encourage separation at source, this will be cost effective in terms of public image and fire prevention. Consideration should also be given to an increase in public awareness regarding the magnitude and prevention of the consumption of tobacco. Lastly, tobacco manufacturing companies need to improve the biodegradability of filters, reduce their packaging waste and educate their customers of the effects of irresponsible disposal.

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Persistent Organic Pollutant's (POPs) Regulations



The country is a party to the Stockholm Convention on Persistent Organic Pollutants (POP's). The objective of the Convention is to protect human health and the environment from harmful effects of persistent organic pollutants. The Department of Environmental Affairs is a Designated National Authority (DNA) responsible for facilitation of the implementation of the provisions of the Convention. The convention obliges party countries to take measures on the reduction and ultimate phase out of certain persistent organic pollutants listed for elimination by the Conference of Parties to the Convention.

In ensuring that the citizens of the country and the environment are protected from the harmful effects of the POPs and thus complying with the provisions of the Convention, the department has published regulations to phase-out the use, production, distribution, sale, import and export of POPs for implementation on the 6th September 2019, in terms of section 44(1)(aA), the National Environmental Management Act, 1998 (Act No. 107 of 1998).

WHAT ARE PERSISTENT ORGANIC POLLUTANTS (POPs)

Persistent Organic Pollutants (POPs) are organic chemical substances, that is, they are carbon-based. They possess a particular combination of physical and chemical properties such that, once released into the environment, they:

- remain intact for exceptionally long periods of time (many years);
- become widely distributed throughout the environment as a result of natural processes involving soil, water and, most notably, air;
- accumulate in the fatty tissue of living organisms including humans, and are found at higher concentrations at higher levels in the food chain; and
- are toxic to both humans and wildlife

WHERE ARE THEY FOUND?

Many products used in our daily lives may contain POPs, which have been added to improve product characteristics, such as flame retardants or surfactants. As a result, POPs can be found virtually everywhere on our planet in measurable concentrations.

WHAT HARM DO THEY DO?

Specific effects of POPs can include cancer, allergies and hypersensitivity, damage to the central and peripheral nervous systems, reproductive disorders, and disruption of the immune system. Some POPs are also considered to be endocrine disrupters, which, by altering the hormonal system, can damage the reproductive and immune systems of exposed individuals as well as their offspring; they can also have developmental and carcinogenic effects.

HOW WILL THE REGULATIONS ASSIST THE ENVIRONMENT

The regulation intends to completely remove these POPs from the environment by gradually phasing them out till December 2021 and thus reducing the risk these chemical may pose on the environment and human health

WHICH POPS ARE CONTROLLED BY THESE REGULATIONS?

The Regulations prescribes the requirements for the phase-out of the use, production, distribution, import and export of the substances listed below:

- a. Hexabromobiphenyl;
- b. Pentachlorobenzene;
- c. Perfluorooctane Sulfonic Acids; its salts (PFOS) and Perfluorooctane Sulfonyl Fluoride;
- a. Hexabromodiphenyl Ether and Heptabromodiphenyl Ether;
- b. Tetrabromodiphenyl Ether and Pentabromodiphenyl Ether



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WORLD OZONE DAY

16
SEPT
2019

"32 YEARS AND HEALING"

International Day for the Preservation of the Ozone Layer 2019 Kimberly, Northern Cape

This year's International Day for the Preservation of the Ozone Layer awareness event was celebrated on 16 September 2019 in Kimberly, Northern Cape. The Northern Cape is the largest province in South Africa but the least populated. Furthermore, the climate is extreme with the highest and some of the lowest temperatures in the country recorded here. The region also has the lowest rainfall of all the provinces. The theme for this year's International Ozone Day recognizes the collective efforts of the parties to the Vienna Convention and its Montreal Protocol towards the restoration of the ozone layer over the past 32 years and the global commitment to combat climate change. The theme for the 2019 celebrations was, "**32 Years and healing.**"

The Chief Education Expert, Mr Tebogo Tau from the Frances Baard District Municipality in the Northern Cape indicated through the key note address that it's our endeavour to continue to strengthen collaboration towards the protection of the ozone layer among all relevant role players. He further emphasised that as a country that we aspire to have more specialists, experts, researchers in the fields of, amongst others, environmental management, chemicals management, climate change and waste management.

Mr Tau also informed the learners and educators of the practical things that as individuals they can do to help protect the ozone layer. Making sure that old refrigerators and air conditioners are disposed of in an environmentally friendly manner. He went further and mentioned that, we all need to take caution against prolonged exposure to the radiation(s) from the sun.

High schools from grade 8 to 11 participated in the awareness event through various activities. The schools competition was based on Ozone layer protection and **32 Years and healing.** The awareness campaign was run with the following schools:

1. Tshireleco;
2. St Boniface;
3. Homevale;
4. Thabane;
5. Emmanuel;
6. Emang Mmogo;
7. Dr EP Serokolo;
8. Green Point;
9. Northern Cape High;
10. Floors;
11. Tetlanyo;
12. Vuyolwethu;
13. Boitumelo Special School; and
14. Xumkwesa Special School.

The awareness campaign was held in liaison with Department of Education Regional office and Provincial Department of Environment Nature and Conservation. The day was celebrated at Mayibuye Multipurpose Centre in Kimberly. The Department of Environment, Forestry and Fisheries, Provincial Department of Education, Provincial Department of Environment Nature and Conservation, Frances Baard District Municipality and Sol Plaatje Local Municipality collaborated towards the holding of the awareness event with over 400 people (i.e. learners, educators and community members).

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