

# enviro focus

The Newsletter of the Environmental Protection Department

Issue 3: September 2008

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## From the Director

The Environmental Protection Department (EPD) is pleased to bring to you the third issue of our *EnviroFocus* newsletter from our new, more spacious accommodation at the NUPW building in Dalkeith, St. Michael, where we will be able to serve you better.

Allow us to take this opportunity to apprise you, the public of Barbados, of two projects that the Department is currently implementing with the assistance and sponsorship of international environmental organisations.

The first is a project which aims to develop a national marine litter monitoring programme. This programme will involve using a standardized approach to the collection of data from beach cleanups. The project also aims to educate the public and increase awareness of the causes and effects of marine litter.

Our second project seeks to strengthen chemicals management through consultation with stakeholders in the chemicals industry and other concerned



The EPD's new offices  
at Dalkeith

parties. The final outcome of the project will be a number of concrete action plans to ensure the safe, sound management of chemicals in Barbados.

It is hoped that these two important initiatives will ensure that our actions today do not adversely impact the inheritance of the generations of tomorrow.

We hope that you will find this issue engaging and informative as we continue to inform you about the functions and responsibilities of the Department, and highlight some of our special activities and projects. Enjoy!

# Environmental Audits

The Marine Pollution Control Section of the Environmental Protection Department (EPD) is responsible for implementing and enforcing the Marine Pollution Control Act, 1998 (MPCA). Under Section 4 (1) of the Act, the EPD is required to *“ascertain the extent of pollution and significant sources of pollution from land based sources, sea-bed activities, dumping activities, airborne sources and characterize or describe that pollution.”*

Simply stated, the Marine Pollution Control Section must identify and describe all activities across the island that can cause marine pollution. This is a large task for the four officers responsible; however the Section tackles the challenge by addressing one industrial sector, or type of activity, at a time.

An environmental audit is one method used by the Marine Pollution Control Section to identify activities that are potential sources of pollution. During an environmental audit of a company the EPD team examines the company’s records and operational practices. We check for accuracy and compliance with the facility’s environmental policies and government regulations. We use questionnaires and interviews with staff at the facility to gather information about environmental practices.

Officers also tour the facility to observe and take photographs. Some of the things we investigate are the handling, storage and disposal of chemicals and oil, the way wastewater is treated and disposed, the management of waste in general, and whether or not there are systems in place to control the emission of air pollutants.



Officers of the EPD carrying out an environmental audit

After the audit is completed, we compile the information collected. Data is recorded in the Register of Pollutants, as mandated by the Marine Pollution Control Act. The Register identifies companies and the pollutants and possible pollutants that they produce.

After compiling the data we make sure to let the companies know if there are any situations that need to be corrected, and make recommendations on how to correct them. We then conduct follow-up assessments with these companies to make sure that they have taken appropriate action.

An important part of our audit

process is building relationships with the companies that we audit, and providing them with guidance and advice. Through these activities we try to encourage improvements in environmental performance while allowing businesses to reach their production goals.

So far the EPD has audited gas stations, dry-cleaners, printeries, and the Barbados Light & Power Co. Ltd. In the coming months, we will be undertaking audits of rum distilleries, BICO Ltd., the Pine Hill Dairy, Banks (B’dos) Breweries Ltd, the Central Purchasing Department, and the Bridgetown Port.

*Ann-Marie Eversley*

## Under The Sea with The Garrison School



Senior Marine Pollution Officer Ingrid Lavine with students of the Garrison School

On June 20, 2008, despite the rainy weather, twenty five students and three teachers from the Garrison School joined marine pollution officers from the Environmental Protection Department for a trip on the Atlantis Submarine.

This activity was planned as a component of the Environment Month activities organised by the EPD, and also as an activity to mark 2008 as International Year of the Reef. The Department took full advantage of this opportunity to interact in a fun yet educational activity with students at our adopted school, the Garrison School.

The first to fourth form students who participated fully enjoyed

*“The students were all eager to look at and hear about the range of fish and coral that inhabit Barbados’ marine waters.”*

their trip and commented on the ‘wonderful’ and ‘spectacular’ things they had seen and learned. The students were all eager to look at and hear about the range of fish and coral that inhabit Barbados’ marine waters. In fact, they were paying such close attention, and their eyes were so keen, that they were able to point out turtles, jelly fish and a sting ray that the tour guide had missed.

The trip was educational for all of us, not just the students, as our guide shared interesting facts about the creatures we saw. For example, did you know that the trumpet fish is related to the sea horse? Or that some turtles can survive on one breath for up to 72 hrs?

YES! was the enthusiastic response to our guide’s query about whether we had a good time, followed by an eager “Can we do that again?” Certainly a fitting end to an enjoyable and educational trip with a lively, intelligent group of students.

*Ingrid Lavine*



Watching the submarine come up

# Building Development and Wastewater Disposal

## Did You Know...

*... that the building development officers of the Environmental Protection Department (EPD) help to enforce our national Groundwater Protection Zoning Policy? They do this as part of the EPD's building development control function.*



Septic tank being built according to EPD specifications

The March issue of EnviroFocus featured an article seeking to inform readers of some common problems encountered by our staff when reviewing residential applications submitted to the EPD for approval. In this issue we endeavour to further educate readers about satisfactory drainage and wastewater disposal practices.

Site plans submitted to the Environmental Protection Department should show how wastewater from various

water borne amenities (i.e. sinks, toilets, washing machines) will be disposed. The drainage details provided should correspond to the floor layout in the site plan. In reviewing the plans, the Building Development Officers will check to make sure that the proposed drainage practices are satisfactory.

One unsatisfactory practice we often see involves passing sewage or laundry waste through a grease trap. This greatly reduces the effectiveness of the trap. Grease traps are not intended or designed to take sewage. When laundry waste goes through a grease trap, the grease fighting properties of the laundry detergents break up the grease. This causes grease to be transported straight through to the disposal well, and defeats the purpose of having the trap in the first place. Kitchen waste should be the only type of waste passing through a grease trap.



Filter bed being built as part of an EPD pilot project

The Zoning Policy was designed to keep our groundwater supply clean and safe. It includes specific requirements for wastewater disposal in the various zones. It is imperative to comply with the requirements for wastewater disposal in the zone where you want to build. Septic tanks and filter beds should be constructed according to the EPD approved drawings and guidelines since problems may arise if inaccurately constructed.

Last but not least, it is crucial that wastewater disposal wells be a minimum distance of 100 feet from any drinking water source, spring or stream in order to prevent contamination of Barbados' potable water supply.

*Farzana Yusuf*

## How noisy is Crop Over?

This is a question that the Environmental Protection Department is seeking to answer. But what is noise and why is it important? Noise can be defined as “unwanted sound” and throughout the world it is being considered as an increasingly important health problem.

Noise is not only a nuisance; it can be a serious health hazard. Stress-related illnesses, hearing impairment, tinnitus (ringing in the ears) and permanent hearing loss may result from prolonged, or even a single exposure to loud noises. Excessive noise can also have negative impacts on childhood development. But if noise can have such an impact on our health shouldn't Barbadians do more to control the noise we produce?

In order to assess environmental noise levels in Barbados and determine what kind of controls might be necessary, the EPD is conducting a number of monitoring studies. One such study is the monitoring of noise levels during the Crop Over Festival. The festival was selected because of the large number of persons attending the events and the closeness of many of the events to residential communities. Amplified music from recordings and live performances, vehicular traffic, and stage preparation and removal are just some of the activities (associated with these events) which may contribute to increases in sound levels in a particular area.

During Crop Over 2007, the EPD commenced monitoring of sound levels produced by a number of events

including the Crop Over Gala, Pic-O-De- Crop Finals, ForeDay Mornin' Jump Up and Grand Kadooment. This initial study (which focused mainly on the amplified sound during the event) was used to gather information for planning later stages of the project.

An initial analysis of the values obtained in the 2007 study showed that during some events the sound levels in the communities were as high as those generally associated with the sound of thunder.

In 2008, the EPD continued the programme and monitored the sound levels produced by the Cavalcades, Cohoblopot, ForeDay Mornin' Jump Up and Grand Kadooment. We also collected information on baseline sound levels, i.e. the levels of sound when these events are not taking place. The results from the EPD's noise studies will be compared to guidelines set by agencies such as the World Health Organisation (WHO) for the protection of human health.

If sound levels are found to be above those set to protect human health we may need to ask: Are we willing to accept lower sound levels in order to protect our health? Would Barbadians and visitors still enjoy this National Festival if the music was played at lower levels? Or has noise now become an accepted, and acceptable, part of our culture?

*Allison Reeves*



Monitoring noise from Kadooment in Station Hill

# EPD Summer Internship 2008



Krystal Lovell

This internship at the Environmental Protection Department began on June 2<sup>nd</sup> and continued until July 31<sup>st</sup> 2008. The nine weeks of the internship were both

interesting and educational, as the functions and day-to-day running of the Environmental Protection Department were explored. I got the opportunity to work closely with all the sections of the Department. I enjoyed them all, but a few stood out for me; these were the sections dealing with building development control, air and noise monitoring, water quality and the management of solid waste and hazardous material.

Some of the activities I participated in during my time spent with the

EPD included accompanying officers from the Building Development Section on site visits, and going on with the Air Quality and Noise Section on their investigations and monitoring. These tasks helped to broaden our knowledge about the functions and responsibilities of the EPD. This internship has helped me to become better equipped to make educational and career choices. The EPD has a lot to offer and it was a wonderful environment in which to work.

*Krystal Lovell*



Stephan Small

As one of the interns working at the Environmental Protection Department this summer, I was very pleased to know that I had been one of the few selected to work

at the department. I worked with most of the sections in the EPD and I used the knowledge that I gained while going to school at the Barbados Community College to aid me in some of the work that I was presented with. While working at the EPD I learnt and developed new skills through on the job training.

For example, I worked with staff in the Building Development Section, where I learnt about vetting house plans, and about the regulations and guidelines used by the building

development officers when they carry out inspections and make recommendations. In addition to inspecting floor plans, I also went on site visits with the officers in this section.

Overall, while working at the Environmental Protection Department I was afforded the opportunity to see the direction I want to take in pursuing a career in environmental science.

*Stephan Small*



Stephan and Krystal at the atmospheric monitoring station, St. Philip

# Asbestos Training and Certification Programme



The display table at the asbestos training course

During the month of April 2008 the Environmental Protection Department of the Ministry of Family, Youth, Sports and Environment hosted a training programme for persons engaged in the handling, removal, storage, transport and disposal of asbestos and asbestos-containing materials.

This training programme was sponsored by the Government of Barbados through the Environmental Protection Department in collaboration with the Environmental Health Department, the Sanitation Service Authority and the Solid Waste Project Unit. The training was delivered by Mr. Wendell Burnett, who

was formerly the Chief Building Development Officer with the EPD.

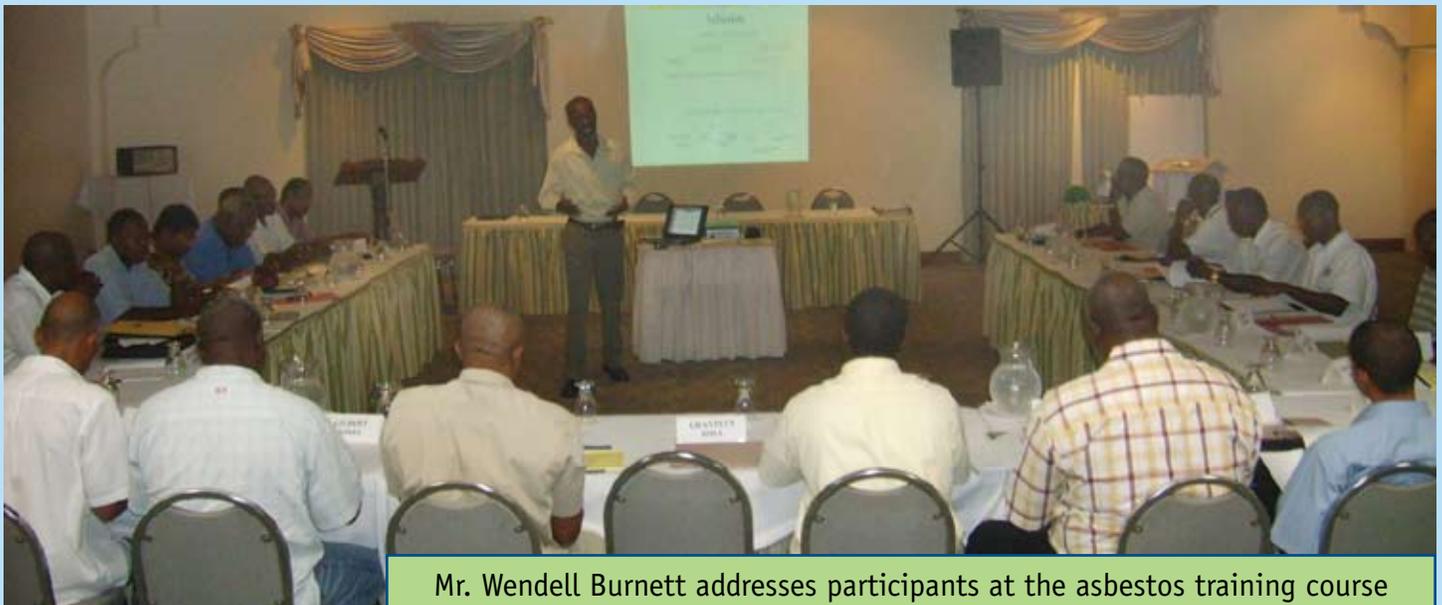
The major objective of the training programme was to improve the level of compliance with the EPD's *Guidelines for Removal and Disposal of Asbestos*. These guidelines are intended to ensure that contractors removing asbestos follow the standards for best practice as determined by the EPD, and that they take are proactive in taking measures to facilitate the maintenance of a safe and healthy environment.

Training was delivered to staff from a range of public sector ministries and agencies, including the Ministry of Housing and Lands, the Ministry of Transport, Works and International Transport, the Environmental Health Department of the Ministry of Health, National Insurance and Social Security, the Education Project Implementation Unit of the Ministry of Education and Human Resources Development, the National Housing Corporation, the Sanitation Service Authority, and the Barbados Port Authority.

The private sector also benefited from the asbestos training programme. More than thirty private sector contractors and supervisors attended the course and received certificates of completion.

In order for asbestos removal to be better managed and regulated, only operators who have been appropriately trained and certified by the EPD will receive permission to remove asbestos and asbestos-containing materials. A list of certified operators has been published in the press and is available from the EPD.

*Margaret Pilgrim*

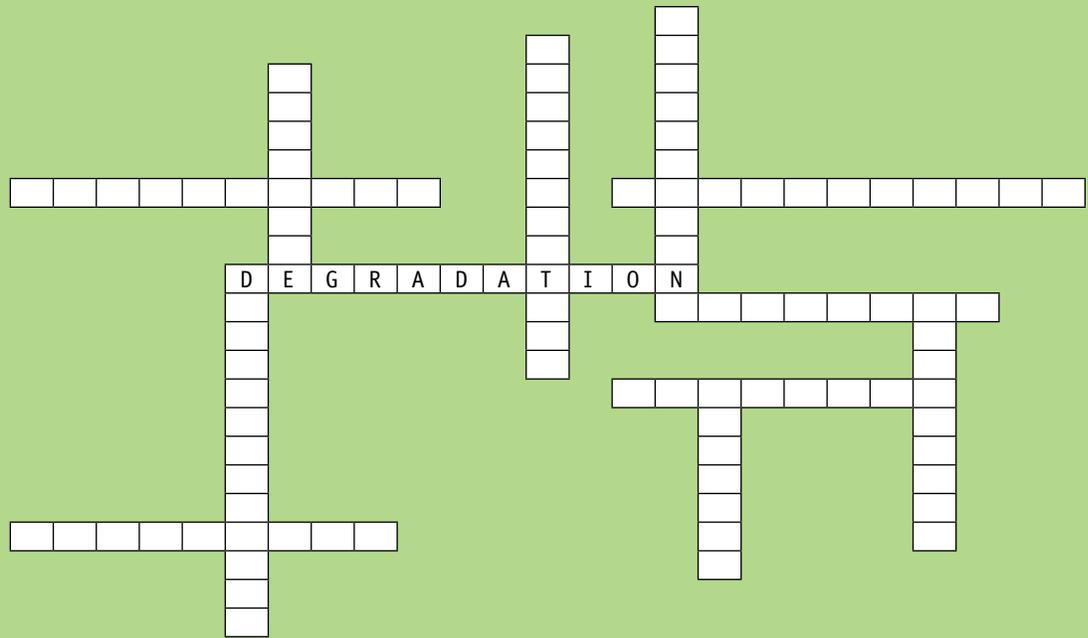


Mr. Wendell Burnett addresses participants at the asbestos training course

**We all have our part to play - help protect the environment today!**

**Instructions:**

After reading the below paragraph, please use the words highlighted in bold to fill in the blanks in the puzzle.



Barbados, the 'Gem of the Caribbean' is a **treasure** to be preciously guarded. Simple steps can be taken to protect our **heritage** through the **preservation** of our **environment** in its **natural** state. **Composting** and **recycling** can go a long way in reducing environmental **degradation**. Reducing illegal dumping and ensuring that all non-recyclable waste is disposed of in a **sanitary** landfill will also help to minimise negative environmental impacts. We should seek to avoid excessive **deforestation**, which can affect our agricultural and tourism sectors. Minimising **pollution** of the air, sea and land are also important to preserving our island as the **inheritance** of future generations.

## ON SERVICE



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