

enviro focus

The Newsletter of the Environmental Protection Department *Issue 2: March 2008*

CONTENTS

<i>The EPD's Derelict Programme.....</i>	<i>2</i>
<i>Did You Know?.....</i>	<i>3</i>
<i>Giving the Gift of Knowledge</i>	<i>4</i>
<i>Marine Litter Cleanup</i>	<i>5</i>
<i>Old Dumps and Disposal Sites</i>	<i>6</i>
<i>Springs in Barbados</i>	<i>7</i>

Contributors

Sylvan Catwell
Charles Clarke
Patrick Fergusson
Trevor King
Ingrid Lavine
Philip Pile
Donna Roach
Carlos Taylor
Thérèse Yarde
Farzana Yusuf

Design & Print:
COT Media Group

From the Director

The Environmental Protection Department is pleased to publish the second issue of our newsletter, EnviroFocus. Through this medium the Department intends to further inform the public of our work, and to highlight additional activities and programmes through which you, as an individual, can contribute to the protection and sustainability of our environment.

As the Environmental Protection Department celebrates its 37th anniversary this March, I look back to the early days of the Environmental Protection Department, which began its life in 1971 as the Public Health

Engineering Unit, with a small staff of nine people. Over the years the staff complement has increased to nearly 50, necessitating the move to our new headquarters at the NUPW building in Dalkeith, St. Michael. In these more spacious and better equipped facilities, we will be able to serve you better.

We continue to try to make this newsletter both educational and engaging. We appreciate the warm reception to the first issue and your feedback, and we welcome your positive remarks and constructive criticism about the work of the Department.



The Staff of the EPD, December 2007

The EPD's Derelict Programme

The EPD's derelict programme is designed to rid Barbados of derelict buildings and abandoned vehicles.

Derelict buildings and vehicles are identified by Environmental Inspectors, with the co-operation of Environmental Health Officers.

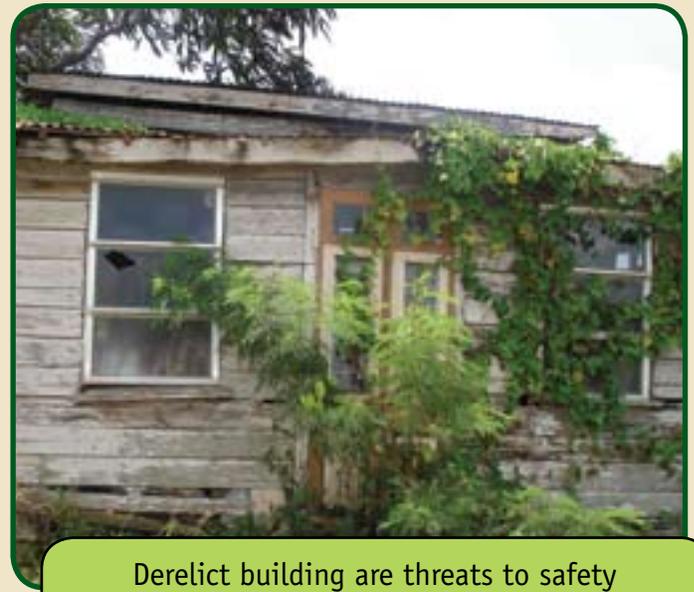
Once a derelict building is identified, Inspectors follow due process by identifying its owner and serving notices as required by the Health Services Act. This Act gives the owner or his/her agent 21 days to respond and to fulfill the conditions outlined in the notice. If this time expires without any action being taken, the building is included on a list published in the print media, and will later be subject to demolition by a contractor registered with the EPD. The EPD is entitled to recover from the owner the cost of demolition.

Not all derelict structures are demolished. The owner/agent may write to the department requesting a stay of execution. If there is a valid reason the structure should not be torn down, the stay will be granted, and the owner/agent given more time to carry out remedial action.

The removal of derelict vehicles is more challenging to the Department because it is often difficult to identify

the owners of abandoned vehicles. There is also the problem of owners of derelict vehicles not wanting their vehicles removed for one reason or another, a common reason being that the vehicle is being sold in parts. Nevertheless, where the EPD deems it necessary, notices are served under the Collection and Disposal of Refuse Regulations, 1975. If there is no compliance within seven days of a notice, the vehicle will be removed and disposed.

Through the removal of abandoned buildings and vehicles the EPD seeks to minimise the public health and safety risks associated with these derelicts, and to maintain the beauty of our island's landscape.



Derelict buildings are threats to safety and public health



Derelict vehicles mar our country's landscape

Did You Know...

That the Town Planning Office is not the sole entity responsible for approving building plans?

If you didn't know that, you're not alone. Many people don't know that the officers of the EPD's Building Development Section also review plans for residential, commercial and industrial development, and that these plans should be compliant with the Building Regulations of the Health Services Act.

In this article, we seek to inform readers of some of the common problems our staff find with applications for the construction or alteration of residential developments such as private dwellings, apartment houses,

condominiums, townhouses, lodging houses, studio apartments and cottages.

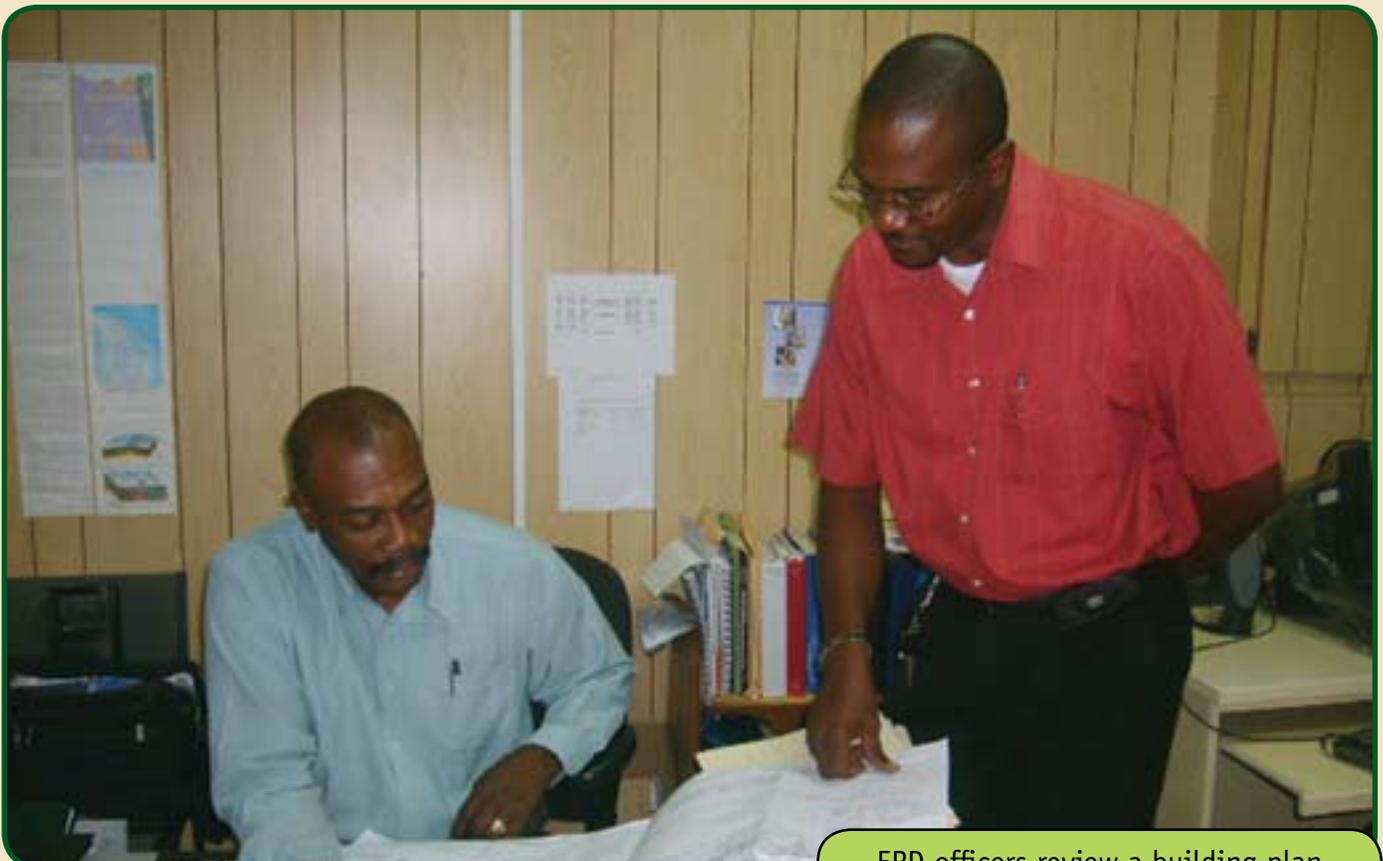
According to the Building Regulations, in habitable rooms (e.g. living/sitting rooms, dining rooms, or kitchens) the total window and door openings to the exterior should be no less than 20% of the floor area of the room. Often plans do not meet this standard. Sometimes proposed renovations or extensions cause the obstruction or reduction of existing window or door openings, or internal rooms are presented with no openings at all to the exterior.

In some cases the plans show bathrooms that open directly onto habitable rooms. This is not permitted unless the application is for a bedsitter or similar one-bedroom, short occupancy room.

Too-small bedrooms or too-low ceilings are also common problems. A bedroom for two persons should have floor space of at least 88 square feet and the ceiling height of habitable rooms should be at least 8 feet from floor to ceiling, even for basement rooms and powder rooms located beneath stairs.

In future issues of EnviroFocus, we will provide more guidance for persons submitting plans. In the meantime, copies of the Health Services Act and the Building Regulations are available from the Government Printery for a nominal price.

Please remember that before you begin construction of any building, you should have approval from both the Chief Town Planner and the Environmental Protection Department.



EPD officers review a building plan

Giving the Gift of Knowledge

Recently the Environmental Protection Department donated several books with an environmental theme to the Garrison Secondary School, the school it adopted in 2005. The EPD hopes that the books will help students' knowledge of the environment, inspire projects and experiments, and show how even young people can take meaningful actions that contribute to the preservation of our natural resources.

Among the books given to the school were simple handbooks to appeal to junior students beginning their secondary science education. There were also more detailed texts to assist older pupils who are carrying out projects and preparing for examinations.

In expressing his thanks for the donation, Mr.

Matthew Farley, principal of the Garrison Secondary School indicated that the books would come in useful for students in both the sciences and general studies programmes.

The books were presented by Mr. Anthony Headley, Deputy Director of the EPD. In his brief address to the students after the presentation, he said that he regretted that there are not more books on the environment by Caribbean authors specifically targeted to Caribbean young people.

Mr. Headley expressed the hope that the young men and women before him might, with continued diligence and application to their studies, become authors of books that would help fill the gap.



Students and teachers peruse the books donated by Anthony Headley (left) on behalf of the EPD

Marine Litter Cleanup

The Environmental Protection Department (EPD) hosted its second successful beach cleanup and marine litter monitoring event on September 15th 2007, at Morgan Lewis Beach, St. Andrew. A total of 29 enthusiastic volunteers turned out at 6:30am for the cleanup and education effort. There was representation from the Ministry of Energy and the Environment, the St. Andrew Parish Ambassadors and the Youth Path. We were particularly pleased with the turn out of our young environmentalists who set an example for others to follow.

This year we collected approximately 624 pounds of litter and debris. There seemed to be less debris on the beach this time, but we will continue to monitor and hope to see a continued downward trend in the amount collected.

Last year bottles and plastic were the main type of debris found; this year rope from fishing activity was the main type of litter found, followed by caps, lids, food wrappers and containers.

The Department will continue to increase community awareness about marine litter and hope to gain further community support and involvement in its monitoring and assessment. To this end the EPD will be participating in a UNEP CAR/RCU (United Nations Environment Programme Caribbean Regional Coordinating Unit) project focussing on public awareness and education as well as monitoring and assessment of marine litter.



Volunteers of all ages came out to the beach cleanup



The EPD team and friends after a successful cleanup

We are also developing a national marine litter monitoring programme aimed at coordinating all the clean up events conducted by volunteers across the island and standardising the way data is collected. This will allow us to make useful comparisons and identify trends in the amount and types of litter found. The information obtained would also

help us understand the extent of the problem and allow us to determine how all Barbadians can help to prevent or reduce it. All individuals or groups who wish to participate in marine litter monitoring efforts should contact the EPD at 436-4820 so that we can work together to save our beaches.

Old Dumps and Disposal Sites

Historically in Barbados, waste was disposed at sites that did not meet modern standards for organised waste disposal. Old dumps threaten the health of persons who occupy such locations. Occupants may be exposed to hazardous agents via the air or the soil. Additionally old disposal sites are prone to fire or explosion and may be structurally unstable.

As the waste in them decays, old dumps produce gases such as methane, carbon monoxide, volatile organic compounds, and inorganic compounds.

These gases may be emitted from below the surface into the air above and the resulting unpleasant odours may cause dizziness, faintness, nausea and headaches. Toxic pollutants in gases from

dumpsites have been linked with respiratory irritation, cancerous illnesses, nervous system damage and low birth weight.

Dumpsite gases are flammable and potentially explosive. Underground fires at landfills and disposal sites are not uncommon. They are difficult to extinguish and the resultant heat may break down the waste buried in the dump, releasing chemicals and increasing the danger of the smoke from the fire.

Disposal sites can also be physical hazards. Because they are composed of debris with varying properties, they are often subject to uneven land settlement, which may damage roads, paths, utilities, foundations and structures on the site.

According to the Health Services (Building) Regulations, 1969, Cap. 44, Section 5,

A person shall not erect a building on any ground which has been filled with any material impregnated with faecal, animal or vegetable matter, or upon which any such matter has been deposited, unless in the opinion of the Medical Officer of Health, such matter has been properly removed or rendered innocuous.

Given the possibility of dire health and physical effects to residents, there must be no subdivision of the land at old disposal sites for the construction of residential or commercial buildings. Unless proper remediation and abatement is undertaken, no development should take place at old dump sites at all.



Underground fires at old dump sites are difficult to extinguish

Springs in Barbados

A spring is formed when an aquifer is filled to the point of overflowing at the land surface, or when the overlying rock is worn down to the level of the aquifer. The limestone rock of Barbados is relatively easily worn down, and this has resulted in the formation of several springs around the island, from St. Peter to St. Philip. In fact, the Spring Garden highway is so called because of the many springs that were once seen in the area.

Most of our water supply comes from groundwater wells. However, some spring sources are used to augment the groundwater supply. Of all the springs found around the island, only seven provide high enough flows to be viable sources for potable water. These are located at Pot House, Bath, Codrington College, and Newcastle in St. John, Three Houses and Fortesque in St. Philip, and Porey Spring in St. Thomas. The Environmental Protection Department and the Barbados Water Authority carry out regular water quality monitoring at all these sites, but only the springs at Codrington College and Newcastle (Benn Spring) have been developed to provide safe potable water. Water from these two sources, unlike that from all other known springs, is chlorinated for distribution.

Historically springs have been used for domestic use and recreational purposes. These days spring water is frequently associated with bottled water or mineral water and is lauded for its purity and health



The spring at Three Houses, St. Philip

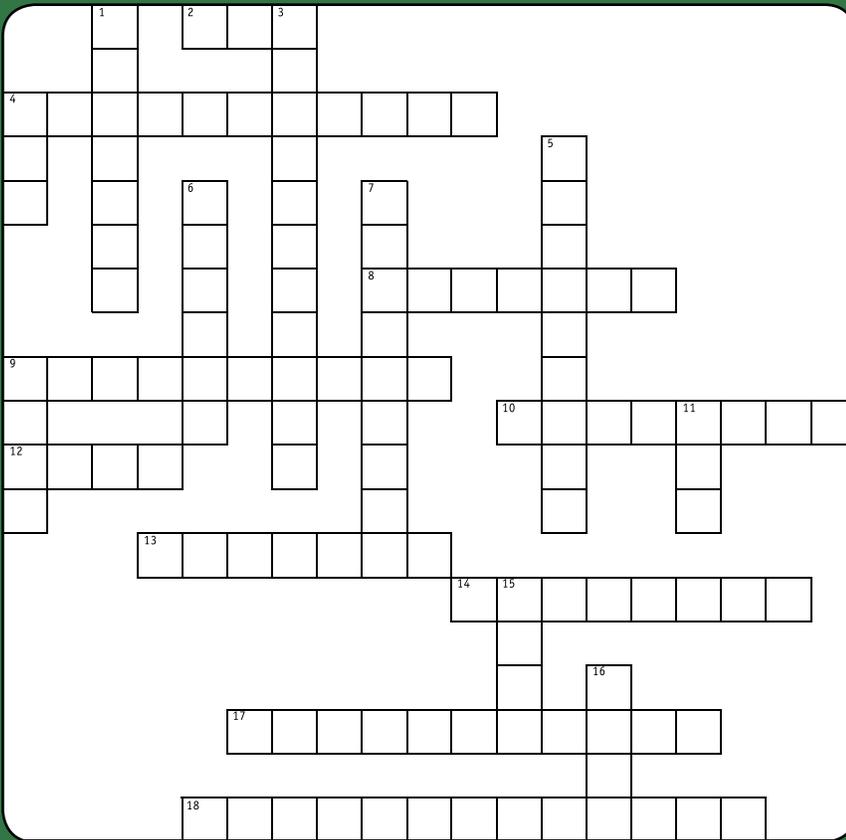


Porey Spring, St. Thomas

benefits. However the public is advised that water from springs other than Benn Spring and the Codrington College Spring

should not be used for drinking without boiling or some form of disinfection to kill harmful bacteria.

CROSSWORD PUZZLE



ACROSS

2. A class of organic compounds emitted from landfills (acronym).
4. The location of the EPD's beach clean-up in 2007.
8. What was one of the main types of debris found at last year's beach clean-up?
9. One use of springs.
10. The location of the new headquarter of the EPD.
12. What is the acronym for the initial name of the EPD when it was founded in 1971?
13. Typical landfill gas.
14. Which Health Services Regulations controls development on old dump sites?
17. A St. Thomas Spring (2 words).
18. Which anniversary did the EPD celebrate this year? (2 words)

DOWN

1. Formed from the overflow of aquifers.
3. Codrington and Benn Spring are used as sources of potable

- water. Water from these locations is therefore ___ before distribution.
4. The ministry of which the EPD is a department (acronym)
5. This organization was represented at the 2007 beach clean-up.
6. Odours from landfills may cause...
7. A hazard caused by the presence of old dump sites.
9. What was the main type of debris found at this year's cleanup?
11. Other than the Town Planning Department, what agency approves building plans? (acronym)
15. To further increase community support and public participation the EPD will be participating in a project hosted by this organization. (acronym)
16. How many water protection zones are there in Barbados?

ON SERVICE



Environmental Protection Department
 Ministry of Family, Youth Affairs, Sports and the Environment
 Dalkeith, St. Michael
 Barbados
 tel: (246) 436-4820
 fax: (246) 228-7103
 www.epd.gov.bb