

ENVIRONMENTAL PROTECTION

Head 72

The Mission

The mission of the Department of Environmental Protection is to protect Bermuda's environment through monitoring, regulation and enforcement, and to promote the sustainable use of the Island's natural resources.

The strategic objectives of the Department are:

- To provide direction and management in the formulation and implementation of environmental protection policy.
- To provide legislation, policies, standards and enforcement to protect Bermuda's environment.
- To conduct research and to monitor environmental quality.

The Budget

Current account expenditure	: \$4,311,711 (+ 0.6%)
Revenue	: \$ 477,156
Capital acquisition	: \$ 44,519
Capital development	: \$ 100,000
Staff	: 32 (4 vacancies)

The Department's **current account expenditure** for 2008/2009 is set at \$4.312 million or 0.6% higher than the original estimate for the current financial year. The 0.6% increase in this year's budget is mainly due to an increased public information budget, animal and veterinary related services, supplies for the Shoreside Facility and part two of the Disposal Borehole Study.

Fifty seven percent (57%) of the department's budget is devoted to salaries and wages totalling \$2.472 million for a staff of 32, including 8 industrial personnel.

An analysis by Object Code shows \$246,000 in **Professional Services**, of which 57% (or \$140,000) has been allocated for local consultants to execute three on-going environmental monitoring programmes:

- assessment of the long-term fate of ash blocks and associated compounds at the Airport dump in Castle Harbour (\$50,000);
- chemical analysis of fresh water lenses to monitor groundwater quality (\$30,000); and
- environmental compliance, including monitoring of environmental complaints, chemical analysis of suspect sites; verification of the clean-up of contaminated sites and the analysis of stack emissions (\$60,000).

An additional 22% of the current account expenditure (or \$965,600) is devoted to the following **Grants and Contributions**:

- **\$291,000 to the Bermuda Institute of Ocean Sciences (BIOS) for the ambient air quality monitoring programme.** This programme operates a mobile air quality sampling van and five fixed monitoring stations. Work focuses on the human and environmental health risks arising from local sources of air pollution, and in particular, emissions from Tynes Bay Waste Treatment Facility.
- **\$272,000 to the Bermuda Institute of Ocean Sciences for the Marine Environmental Programme (MEP).** The Marine Environmental Programme provides an integrated approach to environmental protection associated with the detection of change in marine communities and concentrates on specific environmental hotspots. The Coral Condition Monitoring Program, CCMP and the CARICOMP reef monitoring site will continue, as well as studies of sediment re-suspension by cruise ships in the north and south shipping channels, and quantifying pollutant levels in marine sediments surrounding the Castle Harbour foreshore reclamation site that commenced in 2007/08.
- **\$300,000 to fund the second and final phase of the Longline Exploratory Fishing programme to explore the feasibility of a local, Bermuda-based offshore fishery.** This second phase of the programme will focus primarily on examining the economic feasibility of longline fishing in Bermuda.
- **\$72,000 to the Bermuda Zoological Society for the Bermudian Amphibian Research Project.** Government funds will be used to further investigate the causes of toad deformities, internal pathologies, and suppressed immune function in toads and other

species, the sources of the contaminants and the implications for human health.

The remaining \$30,600 in Grants and Contributions goes to support the Offshore Fisheries, the Centre for Agriculture and Biosciences International, and the Bermuda SPCA.

Revenue is estimated at \$477,000. \$198,000 (42%) of this total will be raised from Animal Control licences, \$192,000 (40%) will be raised from fishing vessel licences, commercial lobster licences, lobster diving licences and lost lobster traps; \$78,000 (16%) from well licences and controlled plant (with gaseous emissions) operating licences, and \$9,000 (2%) from Animal Husbandry licences.

Current Account Expenditure : Environmental Protection

Object Code	2007/2008 Original (000)	2008/2009 Estimate (000)	% Difference
Salaries	1,986	2,043	3%
Wages	420	429	2%
Other personnel costs	0	0	0%
Training	9	9	0%
Transport	3	3	0%
Travel	49	49	0%
Communications	89	87	-2%
Advertising & Promotions	7	62	786%
Professional Services	258	247	-4%
Rentals	25	25	0%
Repair & Maintenance	44	43	-2%
Insurance	11	11	0%
Energy	66	67	2%
Clothing, uniforms, laundry	10	10	0%
Materials & Supplies	202	212	5%
Equipment (Major/Minor Cap.)	147	49	-67%
Grants & Contributions	960	966	1%
TOTAL	4,286	4,312	1%

• Current Account Expenditure and Revenue by Programme

Programme	2007/2008 Original (\$000)	2008/2009 Estimate (\$000)	% Difference
General Administration	1,592	1,618	2%
Standards & Monitoring:			
Hydrogeology	115	133	16%
Marine Protection	881	792	-10%
Plant Protection	319	323	1%
Environmental Chemistry	288	294	2%
Veterinary Services	291	312	7%
Enforcement:			
Marine	400	426	7%
Animal Control	400	414	4%
TOTAL	4,286	4,312	1%

The Year in Review 2006/2007

The **Plant Protection** section employs three established staff: a Plant Pathologist (Sr. Plant Protection Officer), an Entomologist (Plant Protection Officer) and one Technical Assistant in the Plant Protection Laboratory. The Officers in this section are responsible for the enforcement of the **Agriculture Act** 1930, bearing on regulatory, diagnostic and quarantine issues associated with Bermuda's growing rate of horticultural and ornamental plant importation (Appendix 72.1). The responsibility of protecting Bermuda's farmlands, natural and ornamental vegetation from unwanted plant pests and diseases continues to be a challenge, demanding constant attention to plant inspections, surveys, extension and field activity. Education of the public is an ongoing activity within the Section. The Section continued to update its register of approved, denied and banned pesticides; evaluate the efficacy of pesticides; and conduct surveys for the existence of plant pests and diseases. Staff in the Plant Protection Laboratory continued the issue of documents for plant imports and exports, for diagnosed cases of plant problems. Other activities have included extension service calls, soil and water testing, pesticide management activity, lectures and training. Significant time was devoted to research jointly conducted with external institutions in the exercise of the extensive due diligence required for the safe importation of Bermuda grass sprigs. Staff in the Section spends time, where possible, trying to keep abreast of emerging issues in plant pathology, both locally and globally. The data show that the percentage of imported shipments (mostly commercial) intercepted for unwanted pests remained unchanged (-0.7% compared to the previous year (Appendix 72.1) even though the number of shipments increased by 12%. This would signify that the Plant Protection Laboratory continues to monitor imports with the same high efficiency.

In 2007, the Plant Protection Section was involved in the production of the **Pesticide Safety Act**, whose purpose is to update Bermuda's legislation as it relates to the importation, sale, use and disposal of pesticides. Officers also developed new policy or reviewed existing policy: (a) a treatment policy for **the importation of soil**; (b) new policy for **wood pallet and packing material importation**; (c) policy review on importation of plants, fruits and vegetables (specifically, **carrots** and **banana plants**). *After extensive research and risk analyses on the latter two commodities, the policies remained unchanged.*