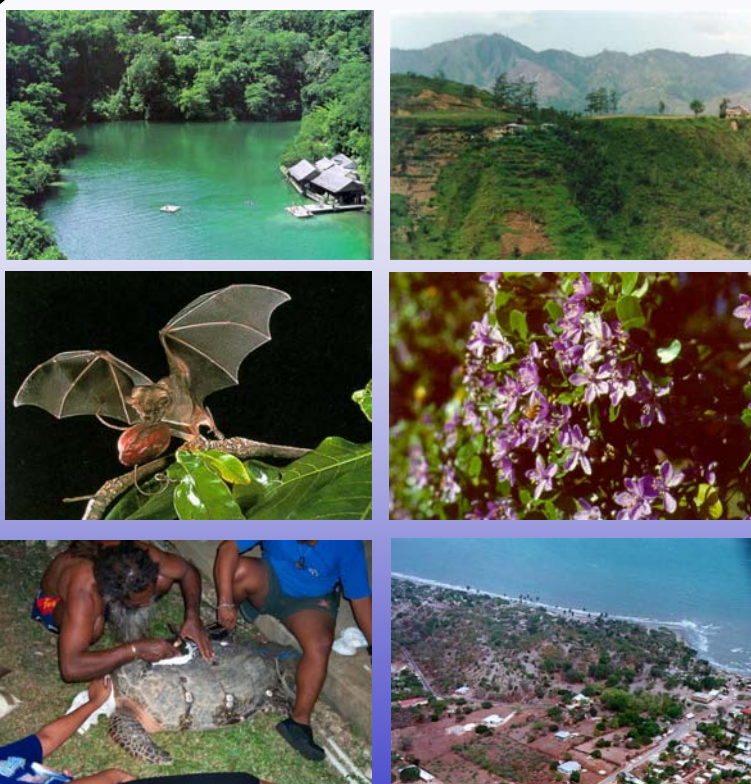




# **National Environment and Planning Agency**

*An Executive Agency of the Office of the Prime Minister*



## **Annual Report 2007/2008**

# The National Environment & Planning Agency



## Annual Report

FINANCIAL YEAR 2007-2008



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**July 2008**

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## MESSAGE FROM THE CEO

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The annual report showcases the many facets of our operations. These range from the processing of development applications, proper environmental management solutions to several public education outreach initiatives.

We continue to highlight the need for a strategic focus on the environment, and to impress upon individuals that the protection of the environment begins with personal responsibility. NEPA's vision is to ensure that Jamaica's natural resources are used in a sustainable manner while ensuring that there is broad based understanding of environment, planning and development issues amongst key stakeholders. Our aim is to provide professional quality service in the execution of this critical mandate, as we seek to safeguard these important resources for posterity.

Admittedly, there are areas in which we can make improvements. However, given that NEPA is determined to satisfy the needs of our clients and stakeholders, we work hard to close these gaps to ensure the delivery of quality service – the hallmark of our professional commitments to Jamaica and Jamaicans. We are urgently seeking out new approaches to the sustainability and conservation of Jamaica's environment.

Given the unprecedented focus on the environment, countries are now forced to confront the fact that bad environmental, development and planning practices are costing us dearly in terms of lost human capital and devastated infrastructure. The year ended in the wake of natural disasters in Burma and China. Here at home, we've seen the devastation wrought by hurricanes over the past three to four years, on several communities. This serves as a reminder for individuals and communities to place value on our environment.

There is much to be done where the protection of the environment is concerned. We at NEPA cannot do it alone, the citizens of this country must also take personal responsibility, our main focus must be to ensure that we mitigate against any potentially harmful impacts on our environment. My personal plea is for you to join in the realization of this vision.

**Leary Myers, PhD, PE, JP**  
**Chief Executive Officer**

## Executive Summary

This report provides information on NEPA's performance over the financial year April 2007 to March 2008. These achievements are reported against targets established in the Operational Plan 2007 - 2008. Also reported are the achievements with respect to NEPA's Key Performance Indicators (KPIs). The audited Financial Statements for the period ending March 2008 are provided in Appendix I.

With regard to **Policy, Legislation and Standards**, three (3) Corporate Policies namely; Records Management Policy, Motor Vehicle Policy and the Print Policy were completed. A review of the standard for phosphates level in Soaps and Detergents (S&D) by the S&D Technical Committee is being finalized.

In the area of **Biodiversity and Species Management**, the proposed zoning of the Palisadoes – Port Royal Protected Area was completed. Species surveys on the sea turtle were undertaken in Malcolm Bay/Crawford – St. Elizabeth and on the beach at Palisadoes/Port Royal, where four (4) nests were recorded. Thirteen (13) *Malpighia proctorii* plants were circumposed and collected to be grown at the Forestry Department's nursery.

In respect of **Protected Areas**, submissions were made on user and management fees for the Negril Marine Park and the Blue and John Crow Mountains National Park (BJCMNP); and the Memorandum of Understanding between the Montego Bay Marine Park Trust and NRCA was revised. Proposed protected area regulations for several of the sites declared under the Natural Resources Conservation Authority Act (NRCA) were also prepared.

In respect of **Watershed and Coastal Zone Management**, erosion monitoring started in Palisadoes and Portland. Estimates of pollution loads from the twenty six (26) Watershed Management Units were undertaken.

With respect to **Pollution Monitoring**, Water Quality Monitoring continued in coastal areas and in selected priority rivers and protected areas. Regarding Air Quality Monitoring. Five hundred and sixty eight (568) monitoring exercises for particulate matter were done at sites on Caledonia Avenue, in Harbour View, NEPA's Laboratory and in Discovery Bay. Continuous monitoring for NO<sub>2</sub> and SO<sub>2</sub> was also carried out at Caledonia Avenue.

In the area of **Spatial Planning**, the focus continued on the preparation of Development Orders and Development Plans for Kingston and St Andrew, and St. Catherine.

Under the **Applications Processing System**, approximately three thousand and thirty five (3,035) applications were received and three thousand and seven (3807) were processed.

With regard to **Public Education and Awareness**, NEPA has embarked on several public education initiatives involving schools and community-based organizations. Additionally, several media features and interviews were produced. The Public Relations Strategy focuses on environmental signature days.

In the area of **Enforcement and Compliance**, one thousand eight hundred and twenty seven (1,827) routine monitoring visits and one thousand three hundred and eighty one (1,381) post-permit monitoring

visits were conducted. Eleven (11) Enforcement Notices were served and eighty (80) Warning Letters were issued.

With regard to **Human Resources Development**, Performance Appraisals were completed, and a list was submitted to the Finance & Accounts Branch for computation of incentive and increment payments, enabling performance incentive payments to be made in December 2007.

Thirty (30) staff training initiatives were supported by NEPA and a culture survey was developed.

# About NEPA

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The National Environment and Planning Agency (NEPA) is an Executive Agency which became operational on April 1, 2001. It is an Agency of the Office of the Prime Minister and represents a merger of the Natural Resources Conservation Authority (NRCA), the Town Planning Department (TPD) and the Land Development and Utilization Commission (LDUC).

## LEGISLATIVE MANDATE

NEPA operates under the following Acts:

- The Watershed Protection Act;
- The Beach Control Act;
- The Wildlife Protection Act;
- The Natural Resources Conservation Act;
- The Land Development & Utilization Act;
- The Town & Country Planning Act;
- The Endangered Species Act

## MISSION

To promote sustainable development by ensuring protection of the environment and orderly development in Jamaica through highly motivated staff performing at the highest standard.

## VISION STATEMENT

Jamaica's Natural Resources are used in a sustainable way and there is broad understanding of environment, planning and development issues, with extensive participation amongst citizens and a high level of compliance with relevant legislation.



## CORE BUSINESS FUNCTIONS

The Core Business Functions of NEPA are:

- *Monitoring the Natural Resource Assets and the State of the Jamaican Environment.*
- *Preparing National Environmental, Planning and Developmental Strategies and Action Plans and monitoring the implementation of related programmes/ initiatives.*
- *Processing of Applications for Environmental Permits and Licences and granting Permits and Licences for:*
  - Beach Use
  - Construction and Operation of Industrial Facilities listed on the Prescribed Categories Project List (NRCA Permit and Licence Regulations 1996 & 2004 Amendment)
  - Sewage Discharge
  - Industrial Waste Discharge
  - Export of Wildlife Species e.g. Conch
- *Preparing Town and Parish Development Plans and Development Orders*
- *Enforcement of environmental and planning laws and regulations*
- *Providing Environmental and Land Use*

## STRATEGIC OBJECTIVES

### Strategic Objective 1:

Policies, programmes and projects are developed, continually assessed and improved to enable NEPA to effectively carry out its mandate.

### Strategic Objective 2:

Effective environmental, planning and development legislation, regulations, standards, and guidelines are put in place to guide NEPA's policies and programmes and all applications for approval, permits and licences are processed in a timely and efficient manner.

### Strategic Objective 3:

A pollution prevention and waste minimization approach is fostered and appropriate waste treatment and control measures are ensured.

### Strategic Objective 4:

Sustainable use of the nation's watershed, coastal, marine and biodiversity is promoted and the integrity of the island's ecosystem is enhanced.

### Strategic Objective 5:

Effective and efficient spatial strategies and development standards are developed and implemented to foster sustainable settlements, optimize the use of arable lands and promote a balance between the competing demands for the use of land.

### Strategic Objective 6:

Compliance with relevant laws, regulations and standards is monitored, enforcement actions taken where necessary and the Agency's programmes and services are implemented at the regional level.

### Strategic Objective 7:

A comprehensive environmental, land use database, mapping and management information system is put in place to enable NEPA to adequately carry out its mandate.

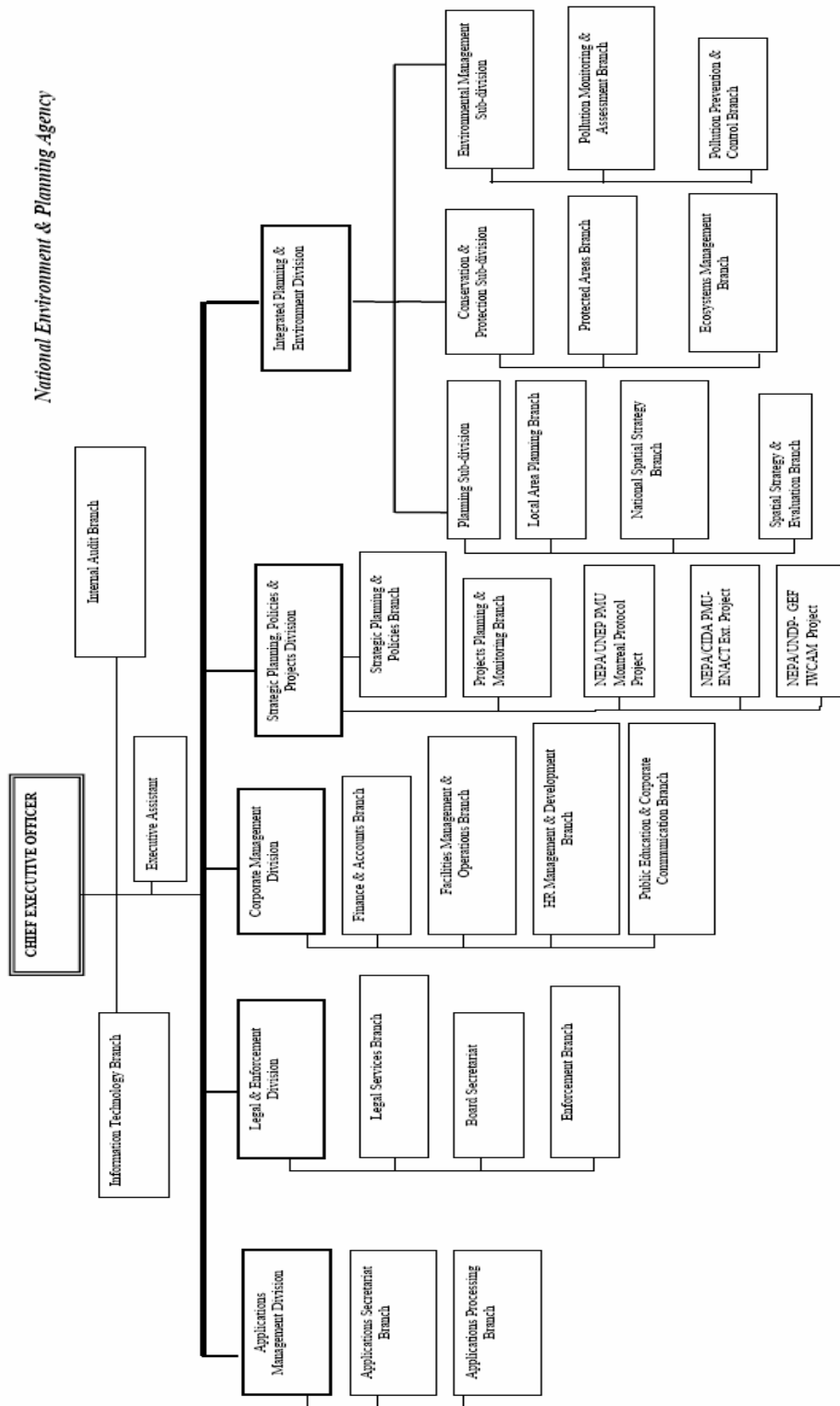
### Strategic Objective 8:

Adequate human and financial resources and effective and efficient management, administrative and public awareness systems are provided to enable the organization to carry out its mandate.

## CORPORATE DATA

Auditor:	PriceWaterhouseCoopers
Bankers:	<ul style="list-style-type: none"><li>- RBTT Jamaica Limited</li><li>- Bank of Nova Scotia Jamaica Limited</li><li>- First Caribbean International Bank</li></ul>
Business Offices:	10 Caledonia Avenue Kingston 5 (Headquarters) 11 Caledonia Avenue Kingston 5 & 191 Old Hope Road Kingston 6 (Laboratory)
Telephone:	(876) 754-7550-1, 754-7546-9 754-7543, 754-7554 Toll Free Help Line: 1-888-991-5005
Facsimile:	(876) 754-7595, 754-7596
Email:	<a href="mailto:ceo@nepa.gov.jm">ceo@nepa.gov.jm</a>
Website:	<a href="http://www.nepa.gov.jm">www.nepa.gov.jm</a>

# NEPA's Organizational Structure



## INTRODUCTION

This report describes the accomplishments of the National Environment and Planning Agency (NEPA) for the period April 2007 to March 2008. Major accomplishments of the five (5) Divisions of NEPA and the donor funded projects are highlighted. Achievements are presented under the following headings; Policies, Legislation and Standards, Protected Areas, Biodiversity and Species Management, Spatial Planning, Watershed and Coastal Zone Management, Pollution Monitoring, Spatial Planning, Applications Management, Enforcement and Compliance, Public Education and Awareness, Human Resources Management, Finance Management and Audit and Projects. The KPI Report for Financial Year 2007-2008 is provided in Appendix II.

## POLICIES, LEGISLATION AND STANDARDS

Three (3) Corporate Policies namely; Records Management Policy, Motor Vehicle Policy and the Print Policy were completed. The National Minerals Policy was reviewed and NEPA's comments submitted to the Ministry of Agriculture and Lands. In addition, the Regional Policy Framework for a more sustainable tourism development in the Caribbean was also reviewed and comments submitted to the Caribbean Regional Tourism Office. Other activities included the review of the standard for phosphate levels in Soaps and Detergents (S&D) by the S&D Technical Committee. These standards are to be considered by the Jamaica Bureau of Standards.

## PROTECTED AREAS MANAGEMENT

The focus of Protected Areas Management during the year was on the Palisadoes/Port Royal Protected Area, the Canoe Valley and the Black River Lower Morass/Ramsar Site. A draft paper was prepared regarding the management of Protected Areas by NEPA. Monitoring/Operational Audit Reports of Co-Management Agreements were also prepared.

### Canoe Valley Pre-Declaration Assessment

The pre-declaration assessment was conducted from July 2006 to April 2007 and included socio-economic, ecological (marine, terrestrial, wetland, bat-cave systems and aquatic systems), archaeological/cultural and water quality components. The assessments involved collaboration with the Jamaica National Heritage Trust (JNHT), Birdlife Jamaica, Jamaica Constabulary Force (JCF) and the University of the West Indies (UWI) Sub-Aqua Club. Three (3) community meetings were held from April 23-25, 2007 in Morley Hill, Rest and Alligator Pond in the parishes of

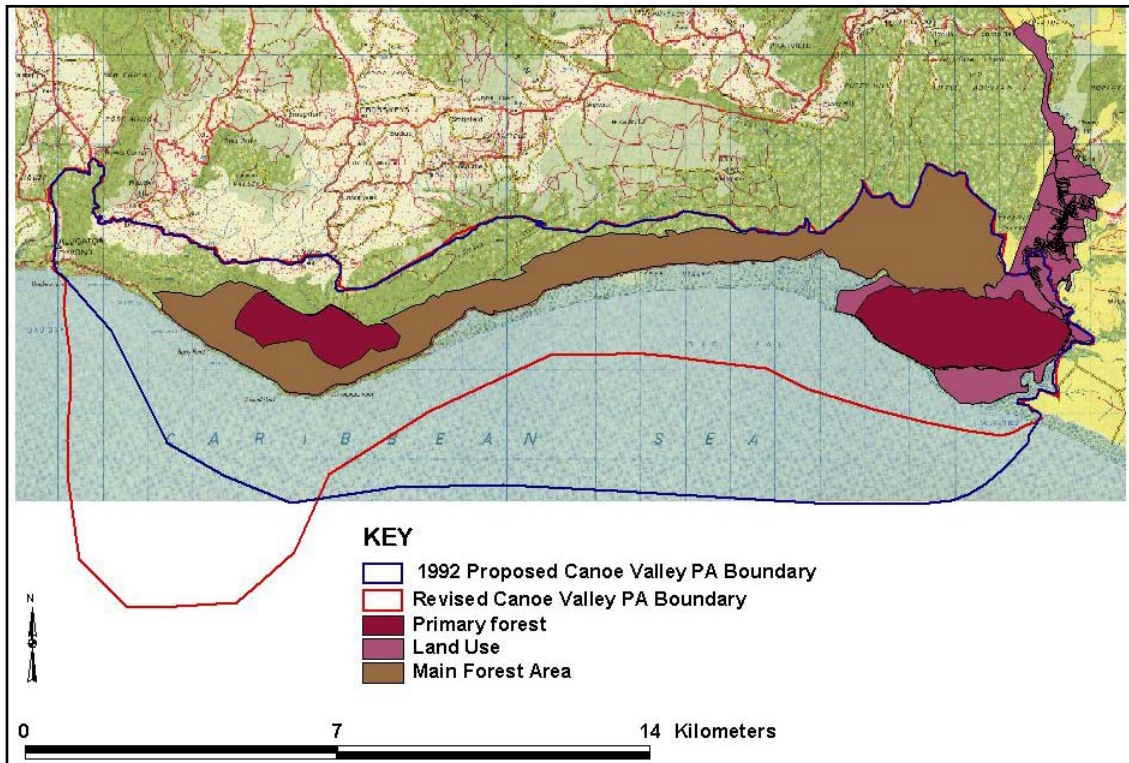
Clarendon and Manchester. The purpose of these community meetings was to discuss the findings of the research conducted and to solicit input from the communities.

The aim of the assessment was to:

- provide baseline information on the study area prior to establishment of the protected area;
- identify uses in and threats to the proposed protected area;
- provide scientific knowledge to inform the identification and implementation of management strategies, zonation, and the development of regulations; and
- ensure that the proposed boundaries contain all critical and/ or sensitive environmental (e.g. ecological, physical, geological), socioeconomic, archaeological and cultural resources.

The study recommended that Canoe Valley be declared a protected area under the NRCA Act for the following reasons:

- It is one of the three (3) largest examples of a herbaceous wetland in Jamaica which has remained relatively intact over the past ten (10) years.
- It has one hundred and sixty-five (165) species of plants, seventeen (17) endemic (national and localized, that are only found in the Canoe Valley area) and one (1) rare species.
- It is a habitat for endangered and protected species such as the West Indian Manatee and sea turtles.
- It has a fairly high number of avifaunal (birds) species, and is an important area for three (3) things that are critical for birds; shelter (for roosting), food (a feeding area for many species) and a breeding area. One (1) such species is the endangered West Indian Whistling Duck.
- Loss of the forest cover will affect *inter alia* the cave ecosystems, birdlife as well as endemic and rare plant species.
- Losses such as these will also impact future potential uses for the area such as ecotourism.



**Figure 1** Map showing the 1992 Proposed Protected Area Boundary and the Revised Boundary for Canoe Valley

### Monitoring of Co-Management Agreements of Protected Areas

As is required under the co-management agreements, operational audits of the Jamaica Conservation Development Trust (JCDDT), the Negril Coral Reef Preservation Society and Montego Bay Marine Park Trust were conducted. A final report for each audit has been prepared.

## BIODIVERSITY AND SPECIES MANAGEMENT

### Species Management/Recovery Plans

#### *Management Plan - Turnera campaniflora*

A Management and Recovery Plan was prepared for the endangered plant species *Turnera campaniflora*. *Turnera campaniflora* was first collected and identified as an undescribed species for Jamaica by Dr. George R. Proctor in December 1974. The genus *Turnera* contains approximately sixty (60) tropical and warm American species (Mabberley, 1990). The species is endemic to Quaco Rock in Clarendon and Jamaica and is regarded as critically endangered. During a field visit in November 2007 one (1) specimen of the species was located. The main threat facing *Turnera campaniflora* is the destruction or alteration of its habitat by the clearing of land for wood, and by fire. Activities aimed at protecting the species and its habitat include; conducting a habitat assessment of Quaco Rock to determine if it meets the criteria for declaration as a protected area; propagate, ex-situ, *Turnera campaniflora* for horticulture potential or for re-introduction to Quaco Rock and conduct feasibility study to determine its marketing potential.



*Turnera campaniflora* sp.

G.R. Proctor, 1974.



### ***Management Plan - American Crocodile***

This Management Plan was developed to guide the management of *Crocodylus acutus*, (American Crocodile), in Jamaica.

The primary objective of the Management Plan is to ensure the conservation of a healthy population of crocodiles through effective management of their habitats, while embarking on a process towards sustainable use of the resource and ensuring that public safety is not compromised by the population in some communities. The short term objectives will ensure that the current population is at a sustainable level through an understanding of its population dynamics and distribution, the identification and declaration of primary crocodile habitats as protected areas, ensuring public safety by the removal of problem crocodiles and educating the public on the behaviour of crocodiles.

The long term objective is to promote the establishment of crocodile farming facilities which will adhere to the guidelines and requirements outlined by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Management strategies will include ecological surveys, habitat identification and protection, problem crocodiles, culling of the population, public education and sustainable use which will involve ecotourism and crocodile farming.

The Plan covers the management of *Crocodylus, acutus* in Jamaica over the next five (5) years to 2013.

### ***Recovery Action Plan for the Jamaican Boa (Epicrates subflavus)***

The Jamaican Boa, also known as the yellow snake, is the largest indigenous terrestrial predator and the largest of the seven species of snakes native to Jamaica, with maximum lengths reaching over 2.2 metres. Once widely distributed, the population is now described as patchy and fragile with a few remaining in strongholds, notably in the Cockpit Country and the lower slopes of the Blue and John Crow Mountains.

The Recovery Action Plan identifies short, medium and long term objectives necessary to conserve this species. The short term objectives include training for key stakeholders in proper techniques of handling, tagging and releasing rescued Jamaican Boas, as well as the development of a



database, public education materials and a “Yellow Snake Conservation Group”. Medium term objectives include the formulation and execution of projects aimed at understanding the status, distribution and population sizes in the key “strongholds”. This will involve a programme to identify and quantify the level of threat affecting each isolated population. The establishment of rescue centres at various locations across the island is also necessary in the medium term. Finally, the long term objectives are to identify and declare conservation areas for yellow snakes and establish programmes aimed at habitat restoration, animal repatriation and population increase with the hope of removing this species from the IUCN Red Data List.

The implementation of the Action Plan has commenced with a workshop in St. Thomas, and the preparation of questionnaires for the Yellow Snake community meetings and workshops.

### **Species Survey**

#### ***Orchid Abundance and Distribution Survey (Negril)***

An assessment of the abundance and distribution of orchid species in Negril and its environs was completed. A report is being prepared. The aim is to develop conservation strategies for the protection of these species.

#### ***Beach Assessment for Sea Turtles***

The beach at Palisadoes Port Royal was surveyed twice weekly between October 23 and November 30, 2007 and four (4) nests were recorded. Data was also collected and analyzed at Malcolm Bay/Crawford – St. Elizabeth and a final report prepared.

#### ***Bird Shooting – Post Season***

Data from six hundred (600) hunters were entered into the bird shooting database for analysis to generate the 2007 Bird Shooting Season Report.

## **SPATIAL PLANNING**

The focus was on the preparation of Development Orders for Kingston and St. Andrew, St. Catherine, Negril and Manchester and the completion of the Orders for the parishes of Trelawny and Portland

### **Development Orders**

Provisional Development Orders for the parishes of Trelawny and Portland were completed during last year. The Development Orders are intended to provide guidance for development activity in these areas. Major development activities are being implemented in these parishes and hence there is an urgent need to formulate planning strategies and development guidelines which will inter alia; encourage compatible land use patterns, secure lands to satisfy future demands, enhance the historical and architectural character of the parish, and safeguard and enhance its environmental integrity, thereby maintaining the unique features of the parishes.

Work has also started on the preparation of the Parish Development Orders for Kingston and St. Andrew, and St Catherine. These parishes are experiencing increased urbanization which has significantly affected land use pattern, the timely delivery of support services and the capacity of the Public Sector agencies to satisfy the demand, e.g. schools, roads, water supply, sewerage, recreational facilities etc.

Development Orders for seven (7) additional parishes are expected to be completed over the next three (3) years.

## **INTEGRATED WATERSHEDS & COASTAL ZONE MANAGEMENT**

### **Estimates of Pollution Loads for the 26 Watershed Management Units in Jamaica**

Pollution to the marine environment is often categorized and managed according to the source of the pollution. Estimated figures for point source pollutant loads (which emanates from a discrete or confined region) and non-point source pollutant loads (which are transmitted from less easily identifiable origins) were acquired using a method recommended by the United Nations Environment Programme (UNEP). Demography data such as population density, land area, number of sewage facilities, and number of housing units, were used to estimate pollutant loads of all twenty six (26) Watershed Management Units (WMU) in Jamaica.

From the estimated data, the Hope River Watershed, in the parish of Kingston and St. Andrew carries the highest load of domestic pollutants per year [BOD of 8,167 t/yr, total N of 389 t/yr and total P of 156 t/yr], while the Rio Cobre, located mainly in the parish of St. Catherine carries the highest load of pollutants from septic sludge per year [BOD of 452 t/yr and TSS of 298 t/yr].

Estimates of rural area run-off, classed as non-point source pollution, indicate that the Rio Bueno & White River mainly in St. Ann [BOD of 705 t/yr, TSS of 5,820 t/yr], and Black River Watershed in St. Elizabeth and Westmoreland [BOD of 769 t/yr, TSS of 6,352 t/yr] carry the highest pollutant loads, while for urban area run-off, the Rio Cobre Watershed [BOD 5,294 t/yr and TSS 43,698 t/yr] again displays the highest pollutant load. This estimated information will form part of the baseline for the data required for updating the Caribbean Environment Programme's (CEP) Technical Report No. 33 on the Regional Overview of Land-Based Sources of Pollution under the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region.

#### **Watershed Rehabilitation Project (Pilot Project – Hope River Watershed Management Unit)**

NEPA embarked on a three million dollars (\$3,000,000) Pilot Slope Stabilization Project in the Hope River Watershed in collaboration with the Forestry Department and the National Works Agency. One of the significant impacts within watersheds continues to be slope failure as a consequence of land degradation. In recent times this has been compounded by extreme climatic events. This project by its design will increase the ability of select areas within the Watershed Management Unit to withstand the effects of extreme events while at the same time engender a greater appreciation of the watershed area and the associated management issues through the engagement of the local communities.



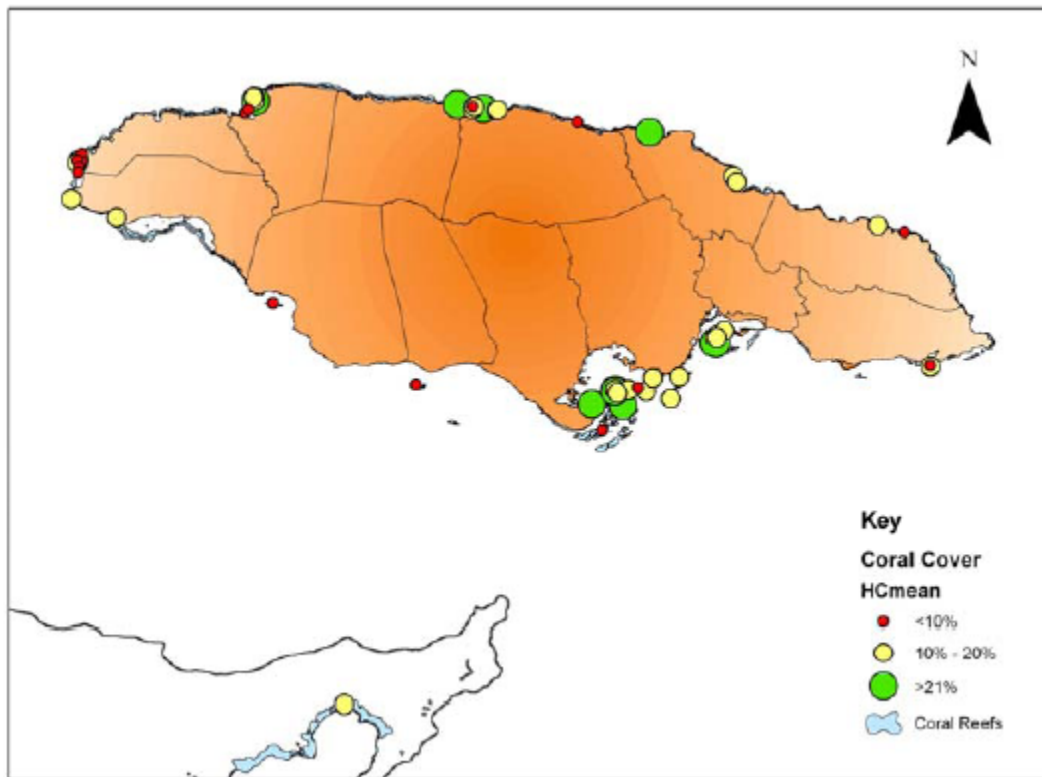
**Site in Freetown (Hope River Watershed) slated for reforestation**

The project is envisaged to also increase the capacity of NEPA to undertake similar projects across the island and at the same time provide protection to vulnerable communities. This project will compliment other ongoing efforts through the National Integrated Watershed Management Council (NIWMC) and the BEST Communities competition to bring about the necessary positive attitudinal changes required to improve the quality of our watersheds and by extension our coastal zones which are dependent on them. A number of soil erosion control measures will be implemented and selected areas of the watershed reforested. It is expected that this Project will be replicated in other watersheds in the near future.

### **Coral Reef monitoring**

Prior to 2005 hard coral cover declined from 50% in the 1970s to less than 5% by the early 1990s due to stressors. The good news is that Jamaica's reefs have rebounded from the 5% hard coral cover recorded in the early 1990s and according to current estimates has increased to approximately 15%. It is also noteworthy that some sites have a relatively high and stable coral cover in percentages greater than the Caribbean regional average of 20 percent.

Routine coral reef data is now collected from just over fifty-three (53) sites across the island. Regrettably, there are a number of gaps in the data collected with some sites having no information for several years. Every effort is being made to ensure that routine yearly monitoring is conducted at each site so that a comprehensive database of coral reef information is maintained.

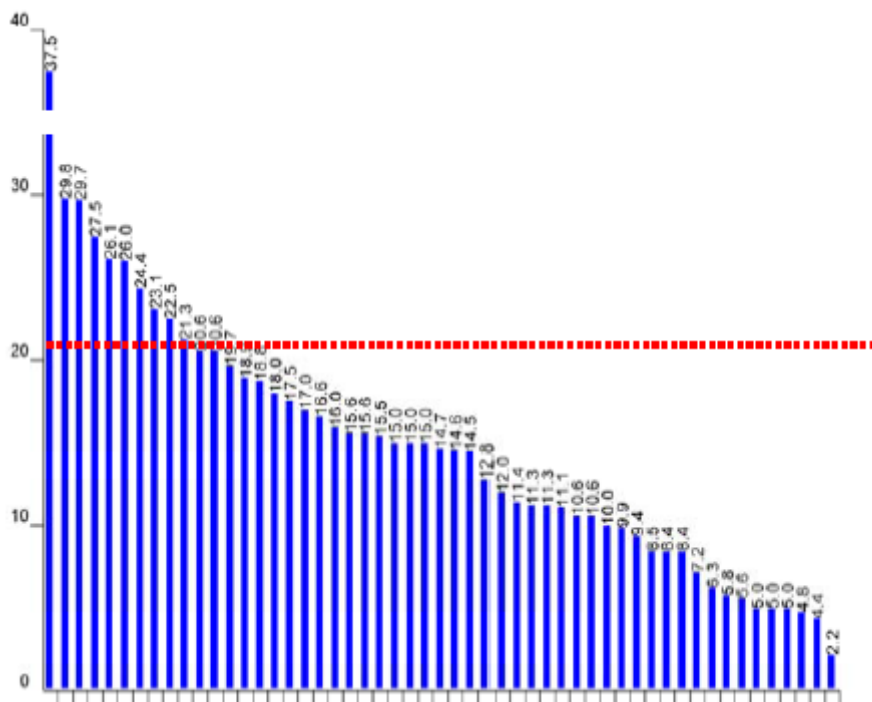


**Figure 2: Percentage Hard Coral Cover by sites.**

The management responses to combat the decline of reefs in Jamaica have included:

- The implementation of a stringent permit and licensing system mainly for activities which result in impacts on coral reefs
- A programme to increase the number of sites being monitored as well as the frequency of visits.
- The implementation of a public education programme on the importance of coastal ecosystems, with special emphasis on the direct correlation between the loss of habitat and general economic losses of the country.

Data collected over the seven-year period (2001-2007) shows the decline and recovery in some instances of the reef ecosystem as well as the effects of hurricanes. Overall hard coral percentage cover recorded for the period ranged between 2.2 % and 37.5 %/100m<sup>2</sup> with an average of 14.79% (Figure 2 & Figure 3).



**Figure 3: Comparison of Hard Coral Cover by sites.** Red line indicates regional average.

Approximately twelve (12) of the sites assessed displayed relatively high and stable coral cover in percentages greater than the regional average of 20% (AGRRA data 1999 -2004). Eighteen (18) of the fifty-three (53) sites assessed had a live coral cover of less than 10%, indicating that these have been subjected to severe stressors. The overall percentage live coral cover (14.79%) is much lower than the regional Caribbean average of twenty percent (20%).

## POLLUTION MONITORING PROGRAMMES

### Routine Water Quality Monitoring

The Routine Water Quality Monitoring program (RWQM) saw improvements in terms of the number of visits this period. Twenty two (22) visits were made to designated sites across the island. Seven (7) of these sites were visited at least twice and each parish was visited at least once. There were seventy seven (77) marine samples and one hundred and twenty five (125) fresh water samples comprising the total number of samples collected (202). On average, nine (9) samples were collected per visit and six (6) parameters<sup>1</sup> tested per sample.

<sup>1</sup> Faecal Coliform, Biochemical Oxygen Demand, pH, Nitrate, Phosphate, Total Suspended Solids, Total Dissolved Solids

There has been no notable change in trend in the quality of water at the sites visited, although with the sparse data collected it is difficult to detect a reasonable trend. River samples, all of which were taken near the mouth, showed that unsanitary discharge of faecal matter continues to be a problem in major river systems. Another indication of pollution in these rivers is nutrient with nitrate appearing to be the dominant of the two tested. Biochemical Oxygen Demand (BOD) is higher than desired in certain areas especially where there is direct or indirect discharge from sewage or trade sources into the river systems.

Marine sites, especially those in recreational areas, returned data within the control limits for most parameter including faecal coliform. The laboratory is currently exploring the use of a different, more sensitive indicator of faecal matter in sea water. Environmental data collected during sampling indicated the impact of nutrients, evidenced by the presence of algal growth in certain areas.

### **Verification Monitoring Program**

Fifteen (15) trips were made to seventeen (17) sewage treatment plants (STP) during the period. Three (3) Sewage Treatment Plants under Section 17 -Verification Monitoring were done with nine (9) visits being made. On two (2) occasions, one (1) or two (2) parameters were out of compliance with the relevant standards at two (2) plants. Ten (10) Sewage Treatment Plants licenced under the Permit & Licence Regulations were monitored, with twenty two (22) visits being made. The standards for one or more parameters were not met on fifteen (15) occasions. This was usually for Total Nitrogen, Biochemical Oxygen Demand, Total Suspended Solids or Phosphate. It was rare to find more than two (2) parameters out of compliance at any given monitoring. This data includes a six (6) weeks assessment done in Mammee Bay, St Ann.

Two (2) Post Permit Monitoring visits were done at Dolphin Cove, Ocho Rios and Montego Bay. Six (6) samples were collected and six (6) parameters tested for each sample.

### **Routine Air Quality Monitoring in the Corporate Area**

The main objective of the Ambient Monitoring Programme is to ascertain the population's exposure to the parameters being used by the programme. In the near future information from the Ambient Monitoring programme will be combined with other Air Quality Programmes (e.g. Stack Emission

Monitoring, Post Permit & Licence Monitoring) to present an overall picture of air quality in the country, and its impact on human health and the environment.

Information on the monitoring stations is presented in Table 1. These are permanent sites being monitored from as early as 2004. Monitoring is ongoing for particulate matter at all sites, except for PM<sub>10</sub> at Harbour View. Monitoring is ongoing for SO<sub>2</sub>, and NO<sub>2</sub> only at Caledonia Avenue.

**Table 1 Monitoring Stations and Parameters**

Monitoring sites	Parameters
10 & 11 Caledonia Avenue	TSP, PM <sub>10</sub> SO <sub>2</sub> , NO <sub>2</sub>
110 Old Hope Road	TSP, PM <sub>10</sub>
Harbour View	TSP
Discover Bay	TSP

### Total Suspended Particulates (TSP)

Table 2 presents a summary of monitoring data for Total Suspended Particulates.

**Table 2 TSP monitoring data for air monitoring stations**

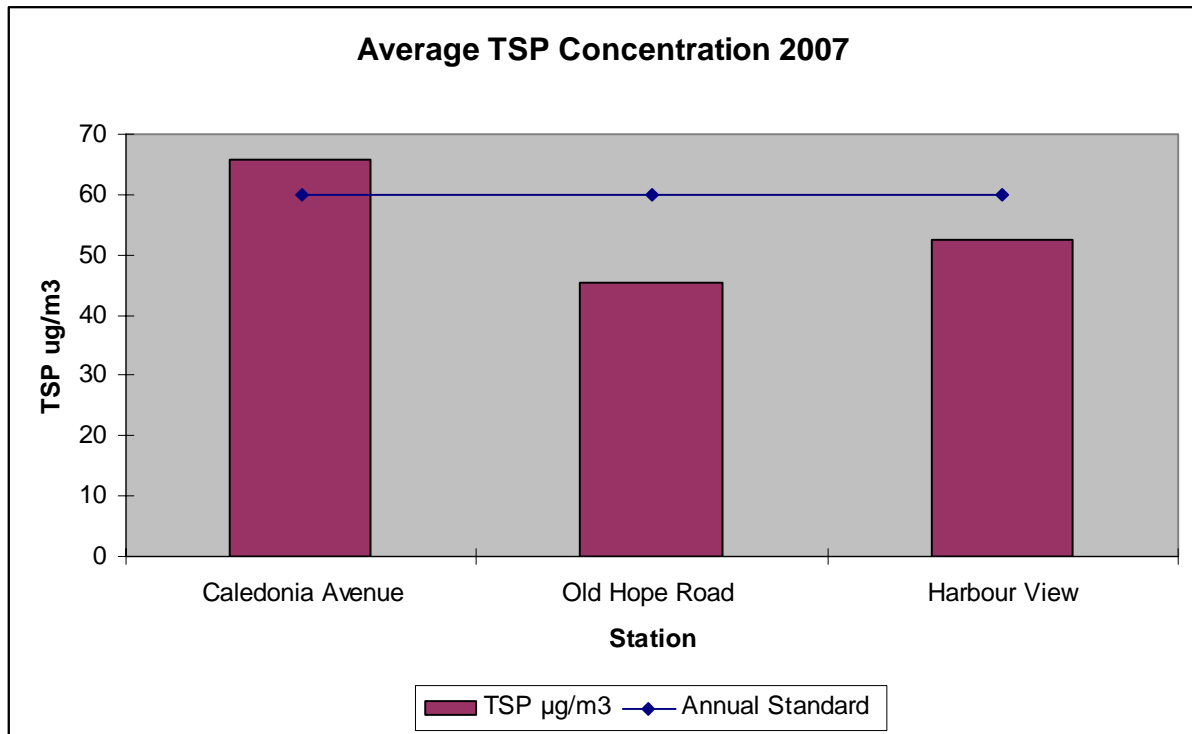
Monitoring Stations	Period	# of exercises	Range (µg/m <sup>3</sup> )	Average (µg/m <sup>3</sup> )	Annual standard (µg/m <sup>3</sup> )
10 Caledonia Avenue	03/01/07 to 19/12/07	48	27.17 – 149.29	65.81	60.0
191 Old Hope Road	03/01/07 to 19/12/07	50	14.47 – 101.44	45.21	60.0
Harbour View	03/01/07 to 19/12/07	53	14.28 – 114.85	52.53	60.0
Discovery Bay	13/02/07 to 28/12/07	43	14.45 – 123.38	49.01	60.0

Note;

1. Each discrete monitoring exercise is conducted on a continuous basis for a period of 24 hours.
2. µg/m<sup>3</sup> = microgram per metre cube



Over the Corporate Area, 24-hour monitoring data ranged from 14.28  $\mu\text{g}/\text{m}^3$  – 149.29 $\mu\text{g}/\text{m}^3$ . Figure 4 presents a graphical representation of the annual average monitoring data.



**Figure 4      Average TSP levels for Monitoring Sites in Kingston and St. Andrew**

Particulate concentration at Old Hope Road was well within the annual average; Caledonia Avenue was just meeting the standard.

On February 13, 2007 monitoring for TSP was started in Discovery Bay. The readings ranged from 14.45 $\mu\text{g}/\text{m}^3$  to 123.38 $\mu\text{g}/\text{m}^3$  (see Figure 6). Forty nine (49) monitoring visits were done of which six (6) were discarded due to battery failure. The average for the year was 49.01 $\mu\text{g}/\text{m}^3$ .

## PM<sub>10</sub>

Table 3 presents a summary of monitoring data for PM<sub>10</sub>.

**Table 3 Average PM<sub>10</sub> values for monitoring sites in Kingston and St. Andrew**

Monitoring site	Period	# of exercises	Range (µg/m <sup>3</sup> )	Average (µg/m <sup>3</sup> )	Annual standard (µg/m <sup>3</sup> )
Caledonia Avenue	04/01/07 to 20/12/07	45	9.97 – 97.43	39.06	50
191 Old Hope Road	04/01/07 to 20/12/07	50	8.57 – 87.82	33.43	50

Note;

1. Each discrete monitoring exercise is conducted on a continuous basis for a period of 24 hours.
2. ug/m<sup>3</sup> = microgram per metre cube

## Gases

Analysis of the existing data shows results below the annual standards for both gases, see Table 4.

**Table 4 NO<sub>2</sub> and SO<sub>2</sub> Results 2007**

	Jan	Feb	Mar	April	May	June	July	August	Annual Standard (ug/m <sup>3</sup> )
NO <sub>2</sub>	16.7	16.7	9.3	21.1	7.60	-	12.6	-	100
SO <sub>2</sub>			3.70	5.8	7.7	10.1	4.64	8.7	60

Total Suspended Particulates (TSP) in the Cross Roads area have improved over the past three (3) years and are now just meeting the annual standard. An improvement in particulate levels at Harbour View was observed. This was not the case at the Old Hope Road station, which saw an increase in Total Suspended Particulate levels though the readings were still well within the standard.

PM<sub>10</sub> values are presently not at levels that are detrimental to human health at the two (2) stations where they are monitored.

The TSP data at Discovery Bay was good as at no time was the daily standard exceeded and the average taken was meeting the annual standard. This average could not have been considered an annual average as only 43 of the 49 samples collected could have been used.

In 2006 the gases (SO<sub>2</sub> and NO<sub>2</sub>) were well below ambient standards and were not a cause for concern. It is hoped that by February 2008 we will be able to put the SO<sub>2</sub> analyser back into operation.

## **APPLICATIONS MANAGEMENT**

NEPA continues to receive an increasing number of applications for environment and planning for consideration and submission to the respective Authorities for decisions. For the twelve (12) months period from April 2007 to March 2008, approximately three thousand and thirty five (3,035) applications were received (see Table 5) of which three thousand eight hundred and five (3807) were processed. These numbers represent a fifteen percent (15%) increase over the previous year, placing additional demands on the technical and human resources of the Agency.

Several measures have been put in place, however to provide a more efficient and effective system for processing environmental and planning applications.

### **Improved internal systems & processes for Applications Processing**

The Agency has implemented a 2-tier system in the processing of applications. Tier 1 applications are considered 'less complex' thereby allowing for a streamlined process which results in a 31 day decision process. Tier 2 applications (without EIAs) go through the normal route and steps are being taken to reduce the processing time to 51 days. Applications with EIAs should take an additional 180 days to allow enough time for public participation etc. The actual timeline will of course be dependent on the responsiveness of the proponents to fulfilling the more rigorous requirements of NEPA.

Additionally, a number of strategies have been implemented within the last nine (9) months to improve the Applications Process. These include:

1. A Web-enabled AMANDA (Applications Management) System for access by NEPA Staff
2. A re-engineered internal process
3. More Committee meetings
4. Provision for increased numbers/frequency of facilitation sessions with Proponents and Consulting Agencies
5. Hiring of additional staff

TABLE 5 : Applications Received and Processed for the period April – March FY 07-08		
TYPES OF APPLICATIONS	NO. RECEIVED & ASSESSED	NO. PROCESSED
(i) Planning	672	704
(ii) Subdivision	769	1461
(iii) Enquiry	116	276
(iv) Environmental Permit	285	205
(v) Environmental Licence	113	89
(vi) Beach Licence	46	38
(vii) Restrictive Covenant	956	956
(ix) CITES	40	40
(xii) Exemptions under Wildlife Protection Act	11	11
(xiii) Research	23	23
Transboundary Movement of Hazardous Waste Permit	4	4
<b>TOTAL</b>	<b>3035</b>	<b>3807</b>

### Customer Awareness Day

NEPA hosted its second Customer Awareness Day on Friday, March 28, 2008 at its offices located at 11 Caledonia Avenue, Kingston 5. The event was staged to sensitize developers, construction professionals, project managers, other interested parties and the general public regarding environment and planning issues.

NEPA sought to highlight the importance of customer service to the operations of the Agency. Through customer-centred service delivery, the Agency is able to offer improved services including the efficient processing of applications, the preparation of development orders, plans, standards, regulations and policies, as well as monitoring and enforcement.

The Agency showcased a simulation of the applications process, displays by various Divisions within the Agency, demonstrations of the Agency's application database system-AMANDA, video presentations, display of a mangrove ecosystem, a live radio outside broadcast on HOT 102 FM, as well as give-aways.

## ENFORCEMENT AND COMPLIANCE

NEPA's enforcement strategy is premised on voluntary compliance, hard enforcement, and the polluter pays principle, supported by increased public awareness and access to information.

New regulations namely, the Air Regulations and the Wastewater and Sludge Regulations (imminent) promulgated under the NRCA Act will impose fees for stack emissions and effluent discharges, and will allow for the imposition of fines on entities that exceed the required standards.

These regulations are specifically aimed at controlling emissions and discharges from industrial sources and will empower NRCA/NEPA to enforce compliance of the air quality and effluent standards.

The application of Environmental Management Systems (EMS) and voluntary compliance programmes such as Green Globe, Blue Flag, and ISO Certification are being encouraged. However, the Agency has taken significant steps to bolster its stringent enforcement and surveillance programme through increased monitoring and the application of a multi-agency approach.

### Strategies to improve Enforcement

In July 2007 the Agency implemented the *ON-SITE Enforcement Written Warning (Ticket) System* to replace the previous verbal warning system. This system is intended to provide better documentary evidence and trigger an earlier response. For the period July 2007 to March 2008, over two hundred (200) tickets were issued. Approximately 80% became compliant after these warnings were issued.

### Compliance Monitoring Visits

The Agency continued its focus on Post-Permit Monitoring, as it sought to encourage compliance with the Conditions set out in the Permits and Licences granted. One thousand eight hundred and twenty seven (1,827) Routine Monitoring Visits and one thousand three hundred and eighty one (1,381) Post-Permit Monitoring Visits were conducted. Eleven (11) Enforcement Notices were served and eighty (80) warning letters were issued.

## PUBLIC EDUCATION AND AWARENESS

### Television features

NEPA teamed with the Jamaica Information Service – Television Division, to produce and ‘air’ a series of features focussing on the natural environment and work of the Agency.

The first production of this collaboration was aired on *Jamaica Magazine* on May 2, 2007. The television features, which are ten to twelve minutes long, focused on Jamaica’s endangered and protected animals.

The series will serve to clarify the role and functions of NEPA, explore some common misconceptions of what the Agency can and cannot do under law, and examine planning and environmental legislations. The features also examine the ways in which the Agency balances its planning, land use and environmental portfolios. They will also highlight Protected Areas across the island, the role and functions of our various ecosystems and the role of the public in preserving our natural treasures.

### Public Education and Awareness Activities

The Agency was involved in seventy six (76) exhibitions. Table 3 shows a listing of the activities. The Agency was also involved in the provision of support for the National Climate Change Forum hosted by the NEEC and a 5-day Training Programme with USAID re Jamaica Bush Fire

Activity	Number
----------	--------

suppression.

Presentations & Exhibitions	76
Advertisements	16
Public Service Announcements	8
News Releases	33
Media Interviews	5
ATI	60
Workshops	34
Publication and distribution of Brochures, Flyers, Posters etc.	31,496

### The Documentation Centre

The Documentation Centre continued to focus on providing information to both its internal and external clients. The year saw a noticeable increase in requests from local tertiary students and overseas based clients via email, on environmental issues, especially on environment and development, specific local developments and pollution. Development Orders continued to be a popular request.

The Documentation Centre has also sought to target specific audiences such as junior clients participating in the Jamaica Library Service's Summer Programme. Participants of the Programmes of the Kingston and St. Andrew Parish Library, the St. Catherine Parish Library and the Bridgeport Branch Library were informed of the Agency's roles and functions as well as environmental issues. Quarterly visits were made to a number of Jamaica Library Service Parish and Branch Libraries to ascertain their environmental information needs and to provide them with material to assist them in satisfying their clients' environmental enquiries.

The following activities were carried out to date:

- 279 items processed/entered on database
- Journals recorded & displayed - 87
- Journals received - 132

## HUMAN RESOURCES MANAGEMENT

### Performance and Incentive

Performance Appraisals were completed. The completed appraisals were submitted to the Agency's Internal Audit Branch for verification and to the Finance & Accounts for computation of incentive and increment payments. On completion of the computation, Internal Audit Branch checks the calculation thereby enabling the Performance Incentive payments to be made in December 2007 salary.

### Training Programme for NEPA staff

Thirty (30) technical workshops and conferences were offered to staff. All categories of staff participated in these workshops and conferences.

### Health and Wellness Fair

NEPA held its first annual Health and Wellness Fair at 11 Caledonia Avenue on July 5, 2007. On show was an array of health services, products and promotions companies. They provided several health tests, including rapid HIV, blood sugar and blood pressure tests, and counselling services.

In addition to the above named services, members of the Ministry of Health's Healthy Lifestyle Project made a presentation on "Chronic Lifestyle Diseases".

A nutrition team from the Rural Agricultural Development Authority (RADA) was also on hand to demonstrate how to prepare healthy meals on a budget.

A dental health unit from the Ministry of Health (MOH) as well as teams from Colgate Palmolive, CARIMED, Glasko Smith Kline (GSK) and Nestle participated in the fair.

Members of staff were also treated to onsite meditation and aerobic training tips.

The Health and Wellness Fair was sponsored by the National Health Fund (NHF) and NEPA.





Staff Christmas Party 2007

### Organizational Review at NEPA

A Culture Survey was carried out, and an action plan developed for implementation of the recommendations. A set of core values were developed and adopted by the Agency and circulated to staff. Follow up reminders of these values were included in the monthly "HR Communiqué".

## FINANCE MANAGEMENT & AUDIT

Monthly Financial Reports were prepared by the Finance and Accounts Branch and were distributed both internally and externally.

### Investments

Excess funds were placed on deposits at commercial banks for periods of 30 – 90 days at an average interest rate of 11.4%. Interest earned for the eleven (11) months period ended February 29, 2008 amounted to \$11.2M including \$3.0M for the NRCA.

The Internal Audit Branch conducted twenty three (23) Financial Audits, ten (10) Operational Audits, one (1) Project Audit and four (4) Compliance Audits.

## PROJECTS

The work of the Agency continued to be significantly enhanced through the support of donor funding such as that provided by the Canadian International Development Agency (CIDA), and the United Nations Development Programme (UNDP). The corresponding capacity development projects were the Environmental Action (ENACT) Programme, the Montreal Protocol (Ozone Depletion) Project, and the Integrated Watershed and Coastal Areas Management Project (IWCAM).

### ENVIRONMENTAL ACTION (ENACT) PROGRAMME Extension

The ENACT Programme commenced in 1994, with funding of CD\$15 million dollars from CIDA and J\$15 million from the Government of Jamaica annually. The programme objectives include:

- Greening of Government
- Local Sustainable Development Planning (LSDP)
- Environmental Education for Sustainable Development
- Strengthening of NEPA's capacity
- Environmental management in the Private Sector

Some of the achievements under these headings are outlined below:

#### Greening of Government

- Resource materials prepared for training the staff of the National Works Agency (NWA).
- Delivery of two 1-day training programmes/workshops on implementing the Environmental Stewardship Programme at the Ministry to administrative and operations staff at the Ministry of Local Government and Environment Draft Booklet on Composting developed under the demonstration component of the Environmental Stewardship of Government Operations Project.
- The draft Environmental Stewardship Policy reviewed by the Ministry of Health and Environment
- Draft template/step-by-step guide for stewardship action plans developed
- An IER conducted on the National Heroes Circle and Caenwood premises of the MOE; IER report prepared; and presented to Senior officers; data collection commenced towards Environmental Stewardship Action Plan.
- Main training handbook on Environmental Stewardship customized for delivery to Senior Officers of the MOE.
- Five (5) 1-day regional training sessions in environmental stewardship delivered to National Works Agency in Kingston, Mandeville, Montego Bay and St. Mary

### Strengthening of NEPA's Capacity

- Multi-Agency Enforcement Strategy presented to NRCA Enforcement Sub-committee
- Issues Paper on Environment and Planning Regulatory Framework finalized and presented to MLGE
- Presentation on environment and planning regulatory issues made to the Permanent Secretary and Minister of the Ministry of Health and Environment
- Consultations (to date) on environment and planning framework: Parish Councils, NRCA Board, Town and Country Planning Authority, senior NEPA staff, Project Steering Committee; NEPA Advisory Board.
- Delivered 2-day training on Environment and Sustainable Development and River Monitoring and Management to ISCF and Enforcement Officers from Fisheries Division and NEPA in Portland.

### Local Sustainable Development Planning (LSDP)

- Further discussions were held with the former MLGE re the LSDP training for Planning Officers.
- Terms of Reference drafted for Consultant to conduct research on housing to support the KSA Development Order. The consultancy was advertised by NEPA.
- Final version of proposed national vision statements developed as part of National Sustainable Development Framework and National Development Plan
- Local Government Department, ENACT and MIND finalized the work plan for developing Phase 2 of the LSDP training for Planners which will focus on project management within the context of LSDP. Contract developed for MIND to create training modules

### Environmental Education for Sustainable Development

- Supported MOEY Region 3 Agricultural and Environmental Fair, held May 22 in Brown's Town, St. Ann.
- Presentation on "Effects of Global Warming on Health and the Environment" made to the 4-H summer camp of the Port Antonio High School.
- Final version of proposed national vision statements developed as part of NSDF and National Development Plan.
- NEEC Website design completed and published. <http://www.nepa.gov.jm/neec>
- MOU signed between MOE and NEPA (ENACT) for the Institutionalisation of Environmental Education and Stewardship within the Ministry of Education
- MOU signed between UNEP and NEPA for UNEP to support EESD Training in Environmental Education and Stewardship for the Ministry of Education
- The National Forum on Climate Change hosted by the NEEC
- Completed oversight of judging process of BEST Community Competition; met with the programme's patron, the Governor General re sustainability of the programme.
- Environmental awareness workshops held for 216 MOE administrative and ancillary staff, education officers and senior managers in Kingston, Mandeville and Montego Bay (partly supported by UNEP CEP-RCU)
- Curriculum Guide for Environmental Education for Teachers in Early Childhood and Primary Programmes completed and printed for dissemination by JBTE.
- Workshop for tutors of the early childhood and primary EE course conducted

- A Post-Bali Press Conference/seminar on climate change hosted by the NEEC and MHE in collaboration with EFJ, the Metereological Service (National Climate Change Focal Point), UNDP GEF and Panos Caribbean. The Minister of Health and Environment delivered the address on behalf of the Prime Minister.

### Environmental Management in the Private Sector

- Mining and Quarry Association of Jamaica launched its Environmental Codes of Practice (development supported by ENACT).
- Implementation of EMS development process at Federated Pharmaceutical Ltd and J Wray & Nephew underway.
- Prepared/compiled a training manual "Sustainable Development for the Minerals Industry" to support the delivery of training in the minerals sector
- Three (3) days of training for mineral sector conducted
- Environmental Operating Procedures developed for two companies towards ISO 14001 certification in Communications – (Objectives, targets and programmes); Legal and Other Requirements – (Procedure and Legal Register); Structure – ( Roles and responsibilities)
- Detailed Operations and other Procedures developed for J. Wray & Nephew Limited and Federal Pharmaceuticals.
- ENACT supported the Minerals Policy and Development Division and the Mining and Quarrying Association of Jamaica (MQAJ) in the development of training resource material and the delivery of a four-day training programme to owners, managers and employees (mining and quarrying sectors) in environment and sustainable development

### MONTREAL PROTOCOL PROJECT

This is a multi-laterally funded programme, which receives funding of US\$1.5 million from the United Nations Environment Programme (UNEP), and approximately J\$ 0.6 million annually from the GOJ. During the year, activities continued on the two (2) main projects being implemented under the Terminal Phase out Management Plan (TPMP) for Chlorofluorocarbons (CFCs). These are outlined below. NEPA received the Montreal Protocol Exemplary Project Recognition award for Jamaica Refrigerant Management Plan and Terminal Phase – Out Plan.

### Phase Out of Ozone Depleting Solvents and Sterilants Use In Jamaica

- Procurement of equipment for Caribbean Maritime Institute and UTECH – institutions which provide training in refrigeration.
- Draft Contract for Consultant prepared.
- Field assessment commenced
- Code of Practice updated, 1000 copies printed and distribution commenced
- NEPA purchased and donated 13 pieces of equipment to Caribbean Maritime Institute
- Local Consultant contracted, companies monitored and report submitted
- 2006 ODS import data submitted
- Save Our Ozone Layer Poster Competition held under theme 'Protect the Ozone Layer :Save Life on Earth
- 27 schools participated ; book vouchers and trophy awarded

- First place – Jessie Ripoll Primary; Second Place – Howard Cooke Primary ; Third place – St. Ann's Bay Preparatory
- Information Fair held at Devon House to celebrate International Ozone Day and 20<sup>th</sup> Anniversary of the Montreal Protocol

#### Phase Out the Use of Methyl Bromide in Jamaica

- Local Consultant continued field assessment of trainers who were trained in the use of alternatives to methyl bromide
- Unspent project balance being used to fund follow-on activities
  - refrigeration equipment to be purchased and donated to Caribbean Maritime Institute and UTECH
  - Code of practice for technicians to be updated
- Environment Canada (funding agency) began process of contracting the Local Consultant. TOR and work plan were drafted and submitted to EC and the NOU for review.

#### Global Environment Facility – Integrating Watershed and Coastal Areas Management Project (GEF-IWCAM)

NEPA with support from the Global Environment Facility is implementing an Integrating Watershed and Coastal Areas Management Project (IWCAM) valued at J\$42,000,000, in the Drivers River Watershed Management Unit that encompasses Eastern Portland and a relatively small section of Eastern St. Thomas. The overall objective of the Project is to strengthen the commitment and capacity of the participating stakeholders to implement an integrated approach to the management of watersheds and coastal areas. Some key interventions of the project include:

- Water quality monitoring on nine (9) rivers running from East River to Hectors River in Portland; Stream flow monitoring at six (6) sites; and coastal water quality monitoring at five (5) marine sites
- Upgrading of pit latrines in selected schools to flush toilets with septic tanks
- Promotion of conservation activities for land-based and marine resources
- Funding of community projects that provide sustainable livelihood opportunities such as ecotourism and agro-forestry
- Improved public awareness of the value of the environmental assets of the Drivers River Watershed, and

The project is expected to last for 36 months ending in September 2009.

The following activities were carried out in the Financial Year:

- Conducted reconnaissance visits to demonstration site; Baseline data gathered; maps procured; etc.
- Project Manager participated in GEF-IWCAM Regional Training & Orientation & CEHI/GEF-IWCAM Workshop on Coastal Zone Management & Environmental Monitoring of Industrial Waste in the Caribbean May 14-17, 2007 St Lucia.
- Reconnaissance & characterization of the Drivers WMU.
- Completion of Work Plan & Budget (revised to meet current needs).

- *Facilitated Stakeholders Workshop* in Portland; Workshop Report completed.
- Four hundred (400) Farmers Almanac being sponsored for IWCZMB to be used in field workshops.
- 16 sites (river and coastal) identified and geo-referenced as WQM sampling sites including sites for monitoring stations (stream flow recorders with data loggers)
- Field equipment & material needs determined for DRWMU WQM.
- Project Management Committee established (NEPA, UNDP, EMB, SDC, PIOJ, FD, WRA, our Ministry, Fisheries, JCDD)
- Designed grant programme
- Met with *Build Jamaica* re: partnership to improve school sanitation



*Research Officer conducting training in Knowledge Attitude and Practices with Project volunteers*

## APPENDIX I

### FINANCIAL STATEMENTS

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**National Environment & Planning  
Agency**

**Financial Statements  
31 March 2008**

# National Environment & Planning Agency

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31 March 2008

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Statement of cash flows	4
Notes to the financial statements	5 – 31

PricewaterhouseCoopers  
Scotiabank Centre  
Duke Street  
Box 372  
Kingston Jamaica  
Telephone (876) 922 6230  
Facsimile (876) 922 7581

## Independent Auditors' Report

To the Members of  
National Environment & Planning Agency

### Report on the Financial Statements

We have audited the accompanying financial statements of National Environment & Planning Agency, set out on pages 1 to 31, which comprise the balance sheet as of 31 March 2008 and the income and expenditure account, statement of changes in equity and statement of cash flows for the year then ended and a summary of significant accounting policies and other explanatory notes.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Members of National Environment & Planning Agency  
Independent Auditors' Report  
Page 2

*Opinion*

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Agency as of 31 March 2008, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

  
Chartered Accountants  
11 November 2008  
Kingston, Jamaica

# National Environment & Planning Agency

Income and Expenditure Account

Year ended 31 March 2008

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2008 \$'000	2007 \$'000
<b>Subvention received</b>	5	473,920	425,190
<b>Expenses</b>			
Staff costs	6	391,035	326,760
Goods and services		30,745	32,559
Premises and related costs		40,075	39,581
Other costs		2,260	1,839
Depreciation		10,455	9,726
	7	474,570	410,465
<b>Operating (loss)/income</b>		( 650)	14,725
Other income	8	11,152	9,785
<b>Surplus for the year</b>		10,502	24,510
<b>Surplus for the year is comprised as below:</b>			
Surplus on Recurrent		18,964	13,634
(Deficit)/Surplus on Capital A and B		(8,462)	10,876
		10,502	24,510

# National Environment & Planning Agency

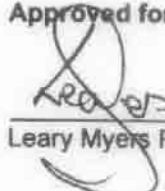
## Balance Sheet

31 March 2008

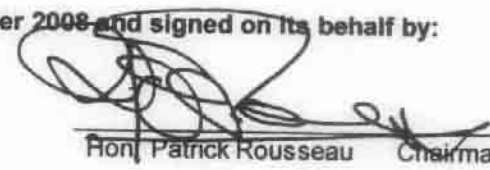
(expressed in Jamaican dollars unless otherwise indicated)

	Note	2008 \$'000	2007 \$'000
<b>Non-current assets</b>			
Property, plant and equipment	9	65,103	55,430
Retirement benefit asset	10	33,345	30,986
		<u>98,448</u>	<u>86,416</u>
<b>Current assets</b>			
Receivables	11	35,690	41,261
Cash and cash equivalents	12	262,960	201,637
		<u>298,650</u>	<u>242,898</u>
<b>Current liabilities</b>			
Payables	13	99,762	107,697
Project funds	14	41,258	15,710
		<u>141,020</u>	<u>123,407</u>
<b>Net current assets</b>		<u>157,630</u>	<u>119,491</u>
		<u>256,078</u>	<u>205,907</u>
<b>Equity</b>			
Capital – (GOJ Investment)	15	43,384	43,384
General reserve		88,739	47,717
Donated asset reserve	16	44,271	33,973
Fees reserve	17	73,284	79,833
Computer and education fund	18	6,400	1,000
		<u>256,078</u>	<u>205,907</u>

Approved for issue on behalf of the Agency on 11 November 2008 and signed on its behalf by:

  
Leary Myers PhD. PE, JP

Chief Executive Officer

  
Ron Patrick Rousseau Chairman, NRCA

# National Environment & Planning Agency

## Statement of Changes in Equity

Year ended 31 March 2008

(expressed in Jamaican dollars unless otherwise indicated)

	Note	Capital – (GOJ Investment)	General Reserve	Donated Asset Reserve	Fees Reserve	Computer and Education Fund	Total
		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Balance as at 31 March 2006		43,384	581	25,211	78,612	1,000	148,788
Additions	16,17	-	-	17,692	51,690	-	69,382
Release from reserves	16,17	-	22,626	(8,930)	(50,469)	-	(36,773)
Surplus for year		-	24,510	-	-	-	24,510
Balance as at 31 March 2007		43,384	47,717	33,973	79,833	1,000	205,907
Additions	16,17	-	-	20,556	51,221	5,400	77,177
Release from reserves	16,17	-	30,520	(10,258)	(57,770)	-	(37,508)
Surplus for year		-	10,502	-	-	-	10,502
Balance as at 31 March 2008		43,384	88,739	44,271	73,284	6,400	256,078

# National Environment & Planning Agency

## Statement of Cash Flows

Year ended 31 March 2008

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2008 \$'000	2007 \$'000
<b>Cash flows from operating activities</b>			
Surplus for year		10,502	24,510
Adjustments for:			
Depreciation	9	10,455	9,726
Profit on disposal of property, plant and equipment		(2,800)	( 557)
Provision for impairment		1,938	903
Interest income	8	(7,004)	(8,770)
Exchange gain on foreign balances		1,073	513
		<u>14,164</u>	<u>26,325</u>
Changes in operating assets and liabilities:			
Receivables		3,633	(2,069)
Payables		(7,935)	17,462
Retirement benefit asset		(2,359)	(3,832)
Project funds		192	(27,865)
Cash provided by operating activities		<u>7,695</u>	<u>10,021</u>
<b>Cash flows from investing activities</b>			
Proceeds from sale of property, plant and equipment		3,228	557
Purchase of property, plant and equipment	9	(20,556)	(17,692)
Interest received		12,988	13,740
Cash used in investing activities		<u>(4,340)</u>	<u>(3,395)</u>
<b>Cash flows from financing activities</b>			
Capital grant received		20,556	17,692
Computer and education loan fund		5,400	-
Fees received		33,085	39,336
Cash provided by financing activities		<u>59,041</u>	<u>57,028</u>
Increase in cash and cash equivalents		62,396	63,654
Effect of exchange rate changes on cash and cash equivalents		(1,073)	(513)
Cash and cash equivalents at beginning of year		<u>201,637</u>	<u>138,496</u>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	12	<u>262,960</u>	<u>201,637</u>



## APPENDIX II

### KEY PERFORMANCE INDICATORS REPORT

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# National Environment & Planning Agency

## KEY PERFORMANCE INDICATORS (KPI) Annual Report

FINANCIAL YEAR 2007-2008



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## **MISSION STATEMENT**

*“To promote sustainable development  
by ensuring protection of the environment and orderly development in Jamaica  
through highly motivated staff performing at the highest standard”.*

## **VISION STATEMENT**

*“Jamaica’s natural resources are being used in a sustainable way and there is a broad understanding of  
environment, planning and development issues, with extensive participation amongst citizens and a high  
level of compliance with relevant legislation”.*

## SUMMARY

### ANALYSIS OF ACCOMPLISHMENT

The report outlines in tabular form the performance of NEPA based on the targets established for the agreed forty (40) Key Performance Indicators (KPI).

Of the forty (40) KPI, the targets were exceeded in eight (8) KPI, the targets were 100% accomplished in twenty one (21) KPI. Five (5) KPI saw an achievement of between 80% and 99% and six (6) KPI received scores less than 80%.

The Agency therefore has scored a performance of 85%.

# THE NATIONAL ENVIRONMENT AND PLANNING AGENCY

## KEY PERFORMANCE INDICATORS (KPI) AND TARGETS FOR 2007-2008

√ - Achieved in the quarter targeted

### STRATEGIC PLANNING

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Monitoring System of NEPA's Performance	1	3 NEPA Quarterly Reports prepared		1	2	3	3
	2	The (2006-07) Annual Report completed		100%			√
NEPA's Corporate and Operational Plans	3	• The Draft 2008-2011 Corporate Plan			100%		√
		• The Draft 2008-2009 Operational Plan completed			100%		√
Strategic plan of priority national environment and planning actions	4	The JaNEAP – 2006 - 07 status report completed			100%		√

### POLICIES

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Policies on key environment and planning issues	5	One Policy Reviewed (Records Management Policy)				100%	95%  The sign-off of the document is to be given by the management team

## LEGISLATION STANDARDS and GUIDELINES

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Promotion and Implementation of Environmental Management Systems within NEPA	6	<ul style="list-style-type: none"><li>Internal EMS Committee established</li><li>Work plan prepared and implemented</li></ul>	100%			100%	√  100%
Programme to support the Phase –out of Phosphate in detergent	7	Final Report on Jamaica's Response to the Phosphate Phase-out completed				100%	100%
The number of Restrictive Covenants (RC) prepared for Court (Approx. 780 are expected to be received)	8	At least 85% of all RCs submitted to the Agency presented to the Courts (An average of 15 RC weekly).	192	390	582	780	956  More than the estimated 780 RCs were actually received
Review general and specific conditions for selected categories of enterprise for Permit & Licenses	9	General and specific conditions related to 14 new/selected categories of enterprise developed or revised				100%	100%

## FINANCIALS

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Timely and Accurate Reports including Statements of Revenue and Expenditure and Balance Sheets.	10	1 Annual Audit Report (2006/2007)		100%			√
		Monthly Financial Reports completed	3	6	9	12	12
Establish the Financial Policies and Procedures to support the Agency	11	Accounting Procedures Manual Revised				100%	100%

## HUMAN RESOURCES MANAGEMENT

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Staff Welfare Programme promoted	12	Implementation of welfare activities on a quarterly basis by the Sports & Social Committee/club	1	2	3	4	5
Training Programme implemented for staff	13	<ul style="list-style-type: none"><li>• Training in Performance Appraisal offered to all staff members</li><li>• 10 technical and non-technical courses offered to staff</li><li>• 30% staff members trained in upgrading IT skills</li></ul>		100%		10          30%	√  29  Additional training needs and funds were identified and therefore more training courses were offered     30%

Culture Integration Programme promoted	14	Action plan for Culture transformation developed		100%			√
		Activities promoted;			100%		√
		<ul style="list-style-type: none"> <li>Development and communication of NEPA's Core values</li> <li>Employee of the quarter</li> </ul>				100%	100%

## CUSTOMER SERVICE

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Improved Customer Service to Clients	15	90% of applications assessed within three (3) days (1500 estimated)	370	750	1100	1500	78%
	16	90% of telephones calls to be answered within five (5) rings	90%	90%	90%	90%	Achievement cannot be verified
Improved ITC Service to (internal) Clients	17	Internet, email PBX systems achieve uptime of 90%	90%	90%	90%	90%	90%
Properly maintained physical facility	18	Refurbish client service area at building #10 (ASB)				100%	100%
		Refurbish lobby area at building #11				100%	√



## APPLICATIONS PROCESSING SYSTEM

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
The Number of Applications processed (approximately 1500 is targeted to be received)	19	1500 applications processed for the year	375	750	1125	1500	2851 2079 applications were actually received, a significant amount compared to previous years
	20	70% of applications processed within 90 days (3 months)	262	525	787	1050	449 Given capacity constraints the target was not able to be achieved.

## PUBLIC AWARENESS / PROMOTION

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Public education strategy implemented	21	3 Quarterly newsletters produced		1	2	3	3
	22	Participation in 5 public expositions	1	2	3	5	9
	23	12 news releases and media briefings disseminated to the media	3	6	9	12	14
	24	12 presentations made on environment and planning to schools and the general public	3	6	9	12	36 With additional members of staff it became possible to do significantly more presentations

## MONITORING FOR ENFORCEMENT

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
The number of planned monitoring visits completed.	25	1420 Routine Monitoring Visits conducted.	355	710	1065	1420	1827 With a small increase in staff it became possible do more site investigations
	26	1420 Post Permit Monitoring Visits conducted.	355	710	1065	1420	1381
The number of routine air quality (particulate) Monitoring activities	27	4 monitoring sites visited routinely for 270 samples to analyse for particulate matter	56	112	168	270	334
The number of routine sites monitored for water quality and site visits conducted	28	20 Routine Water Quality Monitoring Exercises conducted annually	5	10	15	20	21

## RESPONSE TO REPORTED POLLUTION INCIDENTS

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
• Number of Pollution Incidents responded to	29	All Pollution Incident reported responded to (The expected reported Incidents = approx. 12)	3	6	9	12	21  While it was estimated that about 12 pollution incidents would occur, over 20 incidents were reported

• Average Response Time	30	Actions (e.g. contact with complainant, assembly of response team) initiated within 24 hours in response to reported Pollution Incident.	100%	100%	100%	100%	100%
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## SPATIAL PLANNING

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
The progress towards preparing development orders	31	Land use surveys completed for St. Catherine draft Provisional Development Order				100%	20% Because of contractual issues NEPA was unable to employ the personnel to complete the task.
	32	Six (6) neighborhood plans completed for the Kingston and St. Andrew draft provisional Development Order				100%	[3-100% 1-70% 2-40%] 75% Because of technical and scheduling problems, two (2) of the plans were not completed

## INTEGRATED WATERSHEDS AND COASTAL ZONE MANAGEMENT

INTEGRATED WATERSHEDS AND COASTAL ZONE MANAGEMENT							
KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Coastal Resources Assessments	33	Island-wide coral reef assessment status report 2007 completed				100%	100%

The progress towards preparing and implementing Watershed Strategic Action Plans (Hope River Watershed)	<b>34</b>	Slope Stabilization Demonstration Project implemented in the Hope River Watershed			50%	100%	40% The collaborative work expected between NEPA, NWA and the Forestry Department was not forthcoming, so the project was delayed.
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## PROTECTED AREAS

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Implementation of Palisadoes-Port Royal Conservation Campaign	<b>35</b>	Final report Palisadoes-Port Royal Conservation Campaign		100%			√
Pre-declaration Assessment-Proposed Canoe Valley Protected Area	<b>36</b>	Pre-declaration Assessment Report-Proposed Canoe Valley Protected Area				100%	90% Based on the review some data is outstanding

## BIODIVERSITY & SPECIES MONITORING

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Progress towards the implementation of species action plans	37	Crocodile action plan activities implemented and management plan prepared				100%	90%  Management plan completed but need to be signed off by the scientific authority
Species Management and Recovery Plans	38	Management and Recovery Plan for endangered plant Species <i>Turnera campaniflora</i> prepared				100%	√

## PROJECT CYCLE MANAGEMENT

KPI		ANNUAL TARGET FOR KPI	Q1	Q2	Q3	Q4	Annual Achievement & variance report
			Target				
Prepare Project Profiles/ Proposals	39	Four (4) Project Profiles/ Proposals developed and submitted for funding.	1	2	3	4	4
Project Inventory Document	40	Project Inventory Document prepared semi-annually		1		2	2