



**7<sup>th</sup> Semi Annual Report  
October 2003 to March 2004**





# Ridge to Reef Watershed Project

USAID Contract No. 532-C-00-00-00235-00

## 7<sup>th</sup> Semi Annual Report October 2003 to March 2004

April 30, 2004

Prepared for the:

Government of Jamaica  
National Environment and Planning Agency

And the

United States Agency for International Development

Implemented by:

ARD, Inc.  
P.O. Box 1397  
Burlington, Vermont 05402



## Preface

The Ridge to Reef Watershed Project (R2RW) is a five-year bilateral initiative between the Government of Jamaica's National Environment and Planning Agency (NEPA) and the Government of the United States' Agency for International Development (USAID). The Project focuses on three distinct, but interrelated activities working towards the objective of improving the management of Jamaica's watersheds. The R2RW Components are:

- Component 1 Sustainable Environmental Practices
- Component 2 Compliance and Enforcement
- Component 3 Institutional Strengthening

The Project is directly supportive of USAID's Strategic Objective 2 (SO2) – Improved quality of key natural resources in selected areas that are both environmentally and economically significant. ARD Incorporated implements R2RW.

This document is intended to meet a contractual requirement of USAID. It is the 7<sup>th</sup> Semi-Annual Report (SAR) for R2RW covering the period October 1, 2003 to March 30, 2004. This Report provides a comprehensive overview of the progress on Project implementation under USAID Contract No. 532-C-00-00-00235-00 and reports on progress toward achieving the set of activities proposed in the R2RW Fourth Annual Work Plan. In addition, the Report contributes to the fulfillment of the overall R2RW Life of Project Strategy and documents progress made toward achieving the indicators of success originally presented in the R2RW Performance Monitoring Plan (PMP). Finally, this Report summarizes progress toward the agreed performance benchmarks, and presents expenditures for the period.

## Acronyms

AGM	Annual General Meeting
ARD	Associates in Rural Development
C&E	Compliance and Enforcement
CANARI	Caribbean Natural Resources Institute
CASE	College of Agriculture, Science and Education
CBO	Community-Based Organization
CDC	Community Development Committee
CEO	Chief Executive Officer
CETF	Compliance and Enforcement Task Force
CLINs	Contract Line Item Numbers
COMAND	Community Action and Development
COP	Chief of Party
CRS	Compliance and Regional Services Branch (NEPA)
CWIP	Coastal Water Quality Improvement Project
CWIP II	Coastal Water Quality Improvement Project – Phase II
EAST	Environmental Action for Sustainable Tourism
EFJ	Environmental Foundation of Jamaica
EJASP	Eastern Jamaica Agricultural Services Project
ENACT	Environmental Action Program
FAWP	Fourth Annual Work Plan
FD	Forestry Department
GDSS	Garbage Disposal and Sanitation Services
GOJ	Government of Jamaica
GR	Great River
GRW	Great River Watershed
GRWMC	Great River Watershed Management Committee
ICF	Island Constabulary Force
IR	Intermediate Result
ISC	Inter-Agency Steering Committee
ISCF	Island Special Constabulary Force
JAS	Jamaica Agricultural Society
JCDT	Jamaica Conservation and Development Trust
JCF	Jamaica Constabulary Force
JET	Jamaica Environmental Trust
JIS	Jamaica Information Service
JSIF	Jamaica Social Investment Fund
JTB	Jamaica Tourist Board
JUTA	Jamaica Union of Travelers Association
KAP	Knowledge, Attitudes and Practices
LCTF	Land and Conservation Task Force
LFMC	Local Forest Management Committee
LWMC	Local Watershed Management Committee
MBMP	Montego Bay Marine Park Trust
MCC	Montpelier Citrus Company
MINAG	Ministry of Agriculture
MIND	Management Institute for National Development
MLE	Ministry of Land and Environment
MLGYCD	Ministry of Local Government, Youth and Community Development
MOU	Memorandum of Understanding
NEEC	National Environmental Education Committee
NEPA	National Environment and Planning Agency

NGO	Non-Governmental Organization
NHSJ	National History Society of Jamaica
NIWMC	National Integrated Watershed Management Council
NSWMA	National Solid Waste Management Authority
NWC	National Water Commission
ODC	Office of Development Credit
OPDEM	Office of Disaster Preparedness and Emergency Management
P&MTF	Production and Marketing
PATF	Public Awareness Task Force
PATG	Port Antonio Theatre Group
PAWG	Public Awareness Working Group
PC	Parish Council
PCA	Pesticide Control Authority
PDC	Parish Development Committee
PEP	Portland Environment Protectors
PEPA	Portland Environment Protection Agency
PHD	Public Health Department
PIC	Project Implementation Committee
PIOJ	Planning Institute of Jamaica
PMP	Performance Monitoring Plan
PPPCD	Policy, Programs and Projects Coordination Division (NEPA)
R2RW	Ridge to Reef Watershed Project
RADA	Rural Agricultural Development Authority
RGW	Rio Grande Watershed
RGWMC	Rio Grande Watershed Management Committee
RPPU	Rural Physical Planning Unit
SAR	Semi-annual Report
SBA	Small Business Association
SDC	Social Development Commission
SEP	Schools Environment Program
SJPC	St. James Parish Council
SO2	Strategic Objective Number 2
SOW	Scope of Work
SSU	Sanitation Support Unit
STTA	Short-Term Technical Assistance
SWB	Sustainable Watersheds Branch (NEPA)
TAP	Targeted Appropriate Practice
TF	Task Force
TNC	The Nature Conservancy
TOR	Terms of Reference
TPDCo	Tourism Product Development Company
USA	United States of America
USAID	United States Agency for International Development
W&S	Water and Sanitation
WMC	Watershed Management Committee
WMS	Watershed Management Specialist
WPM	Western Parks and Markets
WPA	Watershed Protection Act
WRA	Water Resources Authority
WSTF	Water and Sanitation Task Force
WW2BW	White Water to Blue Water





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# 1. Introduction

This document summarizes the accomplishments of the first half of the fourth year of the five-year Ridge to Reef Watershed Project (R2RW). The full-time staff and long-term consultants and their partners continue to address multiple complex aspects of watershed management through comprehensive integration of activities. Partners include more than 10 Government of Jamaica (GOJ) agencies, many non-governmental organizations (NGOs), a host of community-based organizations (CBOs), two other USAID-funded projects, multiple divisions of the National Environment and Planning Agency (NEPA), and a number of active and concerned citizens and private sector organizations. It is anticipated that this level of integration will continue throughout the life of R2RW and that significant Project resources will be directed toward nurturing these relationships and strengthening partners.

The integration of these multiple partners is facilitated by R2RW via its support to coordination mechanisms that will sustain Project interventions. The principal mechanisms are Watershed Management Committees (WMCs). R2RW staff began this Year to reduce its direct support of the Great River Watershed Management Committee (GRWMC), its four issues-oriented task forces, the National Integrated Watershed Management Council (NIWMC), the Rio Grande Watershed Management Committee (RGWMC), and its four task forces to prepare them to become a foundation on which to build an integrated, national network capable of sustainable watershed management.

## Principal Project Components

The focus areas of the Project did not change during the 4<sup>th</sup> Year from those developed and presented in the original Project design. The three components are:

### ***Component 1***

Through targeted organizations, sustainable environmental management practices by resource users identified and supported in the Great River Watershed (*Component 1A*) and in the Rio Grande Watershed (*Component 1B*)

### ***Component 2***

Incentives for, and obstacles to, enforcement of targeted existing environmental regulations identified and solutions supported.

### ***Component 3***

Capacity of Jamaican government agencies, international donors, private sector and civil society organizations to implement effective watershed management programs enhanced.

The first two sections of this report highlight achievements made by this project during the reporting period.

Sections 4 – 6 highlight progress on the three Project components, as well as cross-cutting themes addressed by the Project. Achievements during the reporting period are described relative to the full range of activities presented in the R2RW Fourth Annual Work Plan.

Section 7 presents key aspects of Project Management including: project operations, project management and oversight, monitoring and reporting, and staffing.

Section 8 presents an update of the performance indicators that were originally set out in the R2RW Performance Monitoring Plan (PMP).

Section 9 reports on the achievement and status of the performance benchmarks presented in the Fourth Annual Work Plan (FAWP).

Section 10 presents a summary of program expenditures for the year.

Appendices 1 – 20 contain supporting documents that provide greater detail of activities and key references for readers.

## **Summary of Key Work Plan Achievements**

R2RW has made dozens of significant achievements during the reporting period. Each of these is presented and described in the text of this document. In this section, a brief review, of major achievements for the reporting period is presented.

### **Component 1: Sustainable Environmental Practices**

#### ***Great River Watershed (Component 1A)***

- ✍ The GRWMC continued to exhibit leadership as a governance structure capable of uniting stakeholders around solutions to the difficult issues of watershed management under incrementally reducing support from R2RW
- ✍ R2RW, organizational partners, and communities implemented multiple grants- and (otherwise-funded) community-based activities to support environmentally friendly agriculture, livestock, water harvesting, wastewater disposal, solid waste management, and marketing.
- ✍ Reduced fecal environmental pollution by completing two grant-funded, innovative water supply and wastewater disposal systems at large schools.
- ✍ Facilitated planting of 5,500 trees in the watershed through a multi-faceted Plant-A-Tree Campaign
- ✍ Presented awards to winners competing in the Great River Green Village Program
- ✍ Supported popular public awareness through the “River Action with the Action Boyz” community theatre program which has been highly successful and well received in communities
- ✍ Began implementation of two Anchor Projects: Improved Production of Pineapples; and the cleaning and Greening of Cambridge

#### ***Rio Grande Watershed (Component 1B)***

- ✍ 140 farmers benefited from six intensive training sessions as part of workshops and field days on various aspects of sustainable agriculture including: bio-fertilizers, farm planning, land husbandry, soil conservation, and agroforestry as a cropping system.
- ✍ Strengthened the role of the Rio Grande Watershed Management Committee (RGWMC) and four task forces as leaders and coordinators of environmental improvement
- ✍ Commissioned a study with the UWI to develop a sediment budget for the Rio Grande River and St. Margaret’s Bay.

- ✍ Initiated the final group of grant-funded projects in water supply, water harvesting, wastewater management, agroforestry, and soil conservation
- ✍ Began implementation of the Land Management Anchor Project

**Component 2: Enhanced Compliance and Enforcement**

- ✍ Promoted and focused an integrated set of posters, song, and music video to support the “It Haffi Legal” campaign to promote stewardship and community compliance with environmental regulations
- ✍ Led a second publication and distribution of the popular “A Pocket Guide to Environmental and Planning Laws of Jamaica” in cooperation with NEPA and the Canadian-funded ENACT Project
- ✍ Printed and distributed 2000 copies of 2004 NEPA calendar highlighting the compliance and enforcement posters
- ✍ Developed 4 courses on compliance and enforcement aimed at enforcement officers and community leaders with the Management Institute for National Development (MIND)
- ✍ Implemented a continuing series of symposia to sensitize Supreme Court Judges, Resident Magistrates and Clerks of the Courts from across Jamaica on the countries environmental laws
- ✍ Supported Compliance and Enforcement task forces in both targeted watersheds to address local issues such as sand mining in the Rio Grande

**Component 3: Enhanced Capacity to Implement Effective Watershed Management Programs**

- ✍ Conducted a retreat of the Sustainable Watersheds Branch in November 2003 to refine its Charter and build understanding and support for programs
- ✍ Supported the programs of the National Integrated Watershed Management Council by actively supporting its Working Groups and Secretariat
- ✍ Implemented major Public Awareness activities such as Wood and Water Day, World Wetlands Day and World Water Day to highlight major environmental issues and solutions to the public.
- ✍ Three exchange visits between the target watersheds were held for the GRWMC AGM, World Wetlands Day and the Joint Portland Compliance & Enforcement and Public Awareness Task Force Workshop.
- ✍ The final draft of the Watershed Policy was submitted to NEPA in November 2003.
- ✍ Developed and presented multiple training workshops on meeting management, wetlands education, and grant management. The range of sessions is tabulated below:

Title of Training	Objectives of Training	Outcomes of Training
Meeting Management	Train chairpersons, Secretaries and Assistant Secretaries of WMCs and their task forces in meeting management and taking minutes	Two training courses held: 14 trained in RGW, Jan. 04 41 trained in GRW, Jan 04
Fundraising	Train representatives of community based organizations in fund raising ideas and techniques	34 persons in the GRW trained in techniques for fundraising in their own organizations

Title of Training	Objectives of Training	Outcomes of Training
Proposal Writing	Train representatives of NGOs, CBOs and local government in basic proposal writing	36 persons in the GRW trained in the nuts and bolts of proposal writing
Facilitation Skills	Train representatives of State Agencies such as the SDC, and NEPA in methods and techniques of community facilitation	Two 2-day courses held in March 2004 in Basic and Advanced Facilitation techniques and two Community Action Planning Workshops held.

## Project Management

- ✍ Expanded the technical team to include more field-based staff directly responsive to communities and focused “Anchor Projects”
- ✍ Continued to actively encourage cross-project coordination through regular team meetings, Project Implementation Committee meetings, CWIP/R2RW administrative meetings, and participating in regular NEPA Senior Management Team meetings
- ✍ Acted upon recommendations identified during a mid-term internal review of R2RW to improve Project performance and impact

## Summary of Key Achievements Outside the 4th Annual Work Plan

During the reporting period, R2RW was regularly asked to support initiatives which emerged from identified needs of stakeholders, partners, or key clients. The major accomplishments during the reporting period which were not proposed in the FAWP included the following:

### ***White Water to Blue Water Conference***

R2RW supported the attendance of two individuals at the international White Water to Blue Water (WW2BW) Conference. The individuals: Thera Edwards, Manager, Sustainable Watershed Branch and Trevor Ramikie, coordinator, National Program of Action for the Protection of marine environment. WW2BW is an initiative aimed at fostering healthy, well-managed and productive marine and coastal ecosystems that support stable and secure economies in coastal countries of the Wider Caribbean Region. It stimulates partnerships to promote integrated watershed and marine-based ecosystems management in support of sustainable development. The outcomes of WW2BW in the Caribbean is intended to serve as the blueprint for future programs on watershed and marine ecosystem-based management in Africa and the South Pacific, Karen Mc Donald Gayle of USAID presented a paper entitled “Public-Private partnership for integrated Watershed Management: 3 Jamaican case studies, which was partially based on the R2RW experience.

### ***Environmental Challenge Program***

A direct avenue for R2RW to reach national youth programs was established with the Jamaica 4-H Clubs as part of an “Environmental Challenge Program”. The Program builds on the work of the Jamaica 4-H Clubs to increase environmental awareness and promote environmentally responsible projects. The projects include ‘Trash to Cash’ - making useful items out of material that would otherwise be regarded as waste - organic farming, and a national tree planting drive. The 4-H Environmental Challenge is intended to coordinate all environmental efforts by providing a framework and the resources for clubbites to educate themselves and their communities and to take an active role in solving local environmental problems.

The objective of this specific activity is to establish an exciting, credible, and sustained environmental program that will provide a framework within which young people will challenge themselves to take an active and educated role in environmental work and connect them with professionals in the field. It will also strengthen the core 4-H curriculum by encouraging and facilitating environmentally friendly projects already within R2RW's repertoire (e.g. organic farming, recycling) and expanding over time to more advanced projects such as hydroponics. The Project will be active in the Parishes where R2RW operates: St. James, Hanover, Westmoreland, St. Elizabeth and Portland. Specific objectives include:

- ✍ Registering at least ten teams per parish;
- ✍ Conducting five Parish Symposia and one National Symposium;
- ✍ Training twenty judges (four per parish);
- ✍ Printing and distributing 200 copies of a handbook;
- ✍ Establishing a relationship between young people and environmental organizations and professionals; and
- ✍ Facilitating coverage of the program on TV, radio, and in the print media.

This activity was discussed and recommended for approval by the R2RW Technical Team. It is a follow-on to the Youth and Environment Forum held in July 2003.

#### ***Proposal Preparation to Support NEPA SWB***

R2RW provided STTA to SWB to support preparation of a proposal to fund a project "An Integrated Approach to Managing the Marine, Coastal and Watershed Resources of East Central Portland". This proposal was submitted to GEF for funding consideration.

#### ***Initiative to Reduce Child Poisoning in the GRW and RGW***

Both WMCs will benefit from a R2RW grant to the Pesticides Control Authority (PCA) for "Reducing Child Poisoning in Great River and Rio Grande Watersheds". The activity is aimed at reducing poisoning among children aged 1-5 in the GRW and RGW through increased public awareness. The Project will be conducted between March 2004 and May 2005. It will involve increased awareness among parents and caregivers; Sensitizing children to the dangers of pesticides and household chemicals; and measurement of project effects through collecting and analyzing poison data on a quarterly basis.

## 2. Project Vision and Strategy

The Third Annual Work Plan presented the overall vision and strategy for R2RW updated to reflect the state of Project knowledge entering the third year of implementation. The following sections describe movement during Year 3 toward achieving the Project vision.

### 2.1 Vision

R2RW articulated a consensus vision in the Fourth Annual Work Plan. The principle aspects of the vision and progress made during the reporting period in achieving that vision are presented on the following pages fewer than five key areas of Project implementation:

- ✍ Improved governance;
- ✍ Effective institutional arrangements for watershed management;
- ✍ Enhanced public awareness;
- ✍ Improved policy, legislation, compliance and enforcement; and
- ✍ Capacity building.



Project Vision per FAWP	Achievements During Project Year 4
<b>Improved Governance</b>	
At the national level, Government agencies are more accountable to local communities using mechanisms established by R2RW for local accountability. Management policies tested and adapted.	Community and government representatives jointly participated in continually greater number of meetings of WMCs and their Task Forces as demonstrated in minutes of meetings.
	Two WMCs and 8 Task Forces engaged representatives of State Agencies with communities to address priority local issues
	Developed, tested used for training an Operations Manual for establishing and implementing WMCs
Local authorities are playing active role in watershed management.	Local officials of RADA, the Forestry Department, the NWC, the NSWMA and NEPA involved in design, decision-making, and implementing projects.
	Parish-level local government has become engaged in Project activities such as water supply provision in Portland and the Cleaning and Greening of Cambridge in St. James
Greater relationship and interconnections between lower and upper watershed residents. Facilitation of dialogue among communities of common interest – cross-fertilization and exchanges among watershed residents.	Three exchange visits between the target watersheds were held for the GRWMC AGM, World Wetlands Day and the Joint Portland Compliance & Enforcement and Public Awareness Task Force Workshop.
	Community and government representatives from throughout the watershed jointly participated in increasing numbers at meetings of the WMCs and their Task Forces as demonstrated in minutes of meetings.
	Green Village Awards Program promoted community stewardship and community pride in 12 communities of the GRW
Improve the regulatory framework for watershed management to facilitate greater compliance and enforcement and an increase in the number of cases prosecuted.	Printing and distribution of 1000 additional copies of the “Pocket Guide on Environmental Regulations in Jamaica”.
	Facilitated “2 additional Judicial Symposia” to expand awareness-raising with Clerks of the Court and Deputy Clerks of the Court regarding environmental laws, issues, policies, and management in order to improve enforcement of regulations in Jamaica.
	Through River Action Program and other public awareness programs motivated citizens to take action on solid waste management issues through 12 community clean-ups
	With MIND developed curricula for four courses in Compliance and Enforcement for field officers and community leaders

Project Vision per FAWP	Achievements During Project Year 4
A new Watershed Protection Act developed that incorporates the challenges of enhanced governance.	Published “Review of Local Watershed Management Committees in Jamaica” to review strategies and methods employed to establish resource management user groups and recommend generic method to establish LWMCs.
	Final draft of the Watershed Policy submitted to NEPA and the MLE
	Supported workshop to facilitate the drafting and consideration of a new Watershed Protection Act.
<b>Effective Institutional Arrangements for Watershed Management</b>	
	“Procedures Manual: Establishing and Operating a Local Watershed Management Committee” used to guide operations of LWMCs
	Provided training to WMC members in minute taking, meeting management, fund raising and proposal writing
	Assisted WMCs and NIWMC Secretariat in preparing reports to document progress in local resource management activities
	GRWMC and RGWMC, and their Task Forces, met regularly to discuss and devise solutions to priority issues of stakeholders.
Better usage of the resources in the watershed. Improved natural resources management with an integrated approach.	Ten grant-funded activities underway or completed in the Great River watershed integrating improved sewage disposal, environmentally friendly income generation, livestock management.
	Fifteen grant-funded activities underway or completed in the Rio Grande watershed integrating improved sewage disposal, water source protection, agroforestry, and land husbandry.
	Four “Anchor Projects” – to combine project resources to address environmental “hot spots” - developed and launched including hiring field coordinators for each, completing detailed action plans and budgets, and initiating field work.
Incorporation of R2RW data into the Sustainable Watersheds Branch (SWB) database so that improved management mechanisms can be replicated and protocols for watershed monitoring and evaluation can be standardized.	SWB/NEPA is responsible for maintaining a database of Watershed Projects in Jamaica as part of NEPA’s contribution to the Programs and Projects Working Group of the NIWMC. During the Project Year, R2RW provided technical assistance to the Branch to utilize the database to reflect current activity status in the country
	Documentation of project methodologies and techniques in manuals and reports to provide a written record for reference for replication

Project Vision per FAWP	Achievements During Project Year 4
	Held monthly brown bags to share knowledge from current programs and research with SWB Staff
<b>Enhanced Public Awareness</b>	
Public knowledge increased of a Watershed Management Unit (WMU). Watershed signs more prominent. Positive change in the attitude of the land users and identification with the watersheds.	Completed implementation of the Green Village Awards Program with an awards ceremony to announce winners. Cash prizes donated by local private sector
	Fifteen signs placed to highlight Project intervention at all grant sites and demonstration plots.
	Mounted displays at 5 public expositions to educate the public on watershed management issues
People's awareness, understanding and appreciation of which laws govern their everyday lives, and how it applies to them. E.g., Farmers ought to understand how their actions and decisions affect water quality downstream.	Promotion of music video starring "Earth Defender" in support of the "It Haffi Legal Campaign"
	Facilitated "Judicial Symposia" to initiate awareness-raising with resident magistrates, supreme court judges, and clerks of the court to improve enforcement of environmental regulations.
	Developed and supported multiple performances of River Action with the Action Boyz in 17 communities, which have motivated communities to take action.
	Widely distributed set of 14 compliance and enforcement posters and NEPA 2004 calendar to community based organizations and schools in target watersheds
	Field-tested, finalized, and distributed 1000 additional copies of the "Pocket Guide on to Environmental and planning Laws of Jamaica".
Increased linkage between watershed management and improved water quality and quantity of water. Teaching tools for communities about the importance of watersheds.	Completed water quality monitoring program in the Great River and reported findings to the watershed community in various fora.
	Designed water quality monitoring program for the Rio Grande based upon stakeholder involvement and lessons learned from the GRW
	Presented results of beach erosion in St. Margaret's Bay to citizens groups and the RGWMC

Project Vision per FAWP	Achievements During Project Year 4
	Signed contract with UWI to conduct sediment budget study of the Rio Grande river and St. Margaret's Bay
Produced significant watershed management material for Jamaica, leading to a tangible increase in the understanding of what and where is a watershed.	Increased public awareness of watershed issues and successes via radio, newspapers, and the internet on over 30 occasions.
	Published and disseminated brochure "A Profile of the Great River Watershed", and "A Profile of the Rio Grande Watershed".
	Completed implementation of the "River Action with the Action Boyz" program in seventeen communities of the GRW.
	Followed up on the recommendations from the "Great River Youth and Environment Conference 2003"
	Produced and distributed sixty "Enviro Kits" containing over 100 brochures, booklets, posters and other environmental information to community leaders and public awareness officers
<b>Improved Policy, Legislation, Compliance and Enforcement</b>	
New and revised Watershed Protection Act. Environmental issues in watersheds are higher on the national agenda. Challenge the government on cohesiveness in purpose.	Final draft of the Watershed Policy submitted to NEPA and the MLE
	Held workshop to review and recommend revision of the Watershed Protection Act with NEPA Legal Services and the SWB
Two watershed management plans for the Great River and the Rio Grande. Watershed appreciably cleaner to stakeholders.	Published Strategic Plan for Sustainable Development of the Great River Watershed drafted, and made presentation on the document to the GRWMC AGM
Communities solving their own problems. Improved well being of watershed residents.	C&E Posters, "It Haffi Legal" jingle and video, and Action Boyz skits helped to motivate communities to take initiative to solve local environmental problems. Twelve community clean-up initiatives were held during the period.
	Green Village Program motivated communities to take pride in surroundings and foster stewardship through community action
<b>Capacity Building</b>	
Increased human resource development and capacity to monitor in the SWB. Transfer of the project back to NEPA when the Project ends. Transfer of information and lessons learned (e.g., there should be a manual available for use, by the SWB, when the project ends).	Operations Manual on how to establish Local Watershed Management Committees prepared. SWB staff served as active participants. Case studies of successful interventions prepared.

Project Vision per FAWP	Achievements During Project Year 4
	SWB staff capacity built through attendance at local and international courses, and team building retreat. Monthly brown bag sessions helped to mentor staff on current issues in watershed management.
Use of Great River and Rio Grande as prototypes for water quality monitoring protocols. Procedures, methods and technologies introduced. Creation of a demonstration plot to show good watershed management practices.	Project closeout plan outlines process for transfer of project resources to NEPA.
	Draft lessons learned document prepared to provide bases for repliability after projects ends.
	SWB Team Building Workshops and Retreat held to share knowledge of R2RW activities and build ownership of processes and team cohesiveness.
	<p>Initiated special study with CASE to establish demonstration plots which show that recycling and reuse of wastewater in agriculture (including raising ornamental fish, establishing hydroponics, and growing organic herbs and spices) is financially rewarding and technically sound.</p> <p>Completed water quality monitoring program in the Great River in cooperation with University of the West Indies and reported findings to the watershed community at Task Force Meetings and Annual General Meetings.</p>
Team of agencies with the capacity to guide the dynamics of sustainable watershed management.	Began implementation of Sanitation Management Anchor Project that included analysis of effluent quality from constructed wetlands
	Provided training to WMC members in minute taking, meeting management, fund raising and proposal writing
Greater coordination of projects within watersheds.	Development of multi-stakeholder groups through WMCs and their task forces, as well as support to the NIWMC and its working groups.
	<p>Began implementation of public education program for the Rio Grande with the Jamaica Conservation and Development Trust (JCDDT) to develop and implement a community education program for sustainable watershed management in support of JCDDT's management of the Blue and John Crow Mountains National Park and R2RW's programs in the Rio Grande Watershed.</p> <p>Worked closely with ENACT to field test, finalize, and distribute "Pocket Guide on to Environmental and Planning Laws of Jamaica", developing and implementing symposia for magistrates, and developing curricula for courses in compliance and enforcement with MIND</p>

Project Vision per FAWP	Achievements During Project Year 4
	Made regular reports on status of R2RW to the Portland PDC per terms of the MOU with RGWMC and the PDC.
	Reformed PIC to enhance coordination of three USAID SO2 environmental initiatives.

## 2.2 Project Strategy

This section describes progress toward implementing each of the four strategies that R2RW applies to achieve objectives and goals. It is important to re-emphasize that these strategies are not followed in isolation, but rather they inform and influence each other. The four strategies are:

- ✍ Building strategic partners;
- ✍ Enhancing community involvement;
- ✍ Identifying leverage points; and
- ✍ Applying appropriate practices.

In addition, a governance framework that brings together multiple centralized government agencies; emerging regional, parish, and other local mechanisms for coordination; and Jamaican citizens forms a platform upon which the four strategies are implemented.

Achievements during the reporting period toward implementing each strategy are presented on the following pages:

Elements of Project Strategy	Achievements During Project Year 4
<b>Building Strategic Partners</b>	
Identifying and addressing the constraints strategic partners face in effecting environmental management.	Facilitated two additional “Judicial Symposia” to initiate awareness-raising with clerks of the court regarding environmental laws, issues, policies, and management in order to improve enforcement of regulations in Jamaica.
	More that 100 WMC members and partners strengthened through a range of Project-supported training courses including topics such as managing meetings, taking minutes, fund raising, proposal writing and facilitation skills
Motivating and working with field staff of strategic partners.	Joint design and management of project initiatives with partner organizations enhances the work product and quality of key partners. E.g. Implementing agro-forestry projects with the Forest Department and RADA helps both organizations to carry out their organizational mandates
	Provided training in facilitation skills to key partners including NEPA and SDC
	Mentoring of key field staff accomplished by R2RW Technical staff working with selected individuals in partner organizations
	Recognized achievements of key staff of strategic partners through certificates of appreciation presented at AGMs.
Building working arrangements with and between public sector agencies, NGOs, and CBOs.	Published “Review of Local Watershed Management Committees in Jamaica” to review strategies and methods employed to establish resource management user groups and recommend generic method to establish LWMCs.
	State agencies working together with communities on WMC Task Forces to address watershed wide issues.
	Management Committees consisting of representatives from partner organizations established for Anchor Projects and relatively larger sub-projects. E.g. A steering committee consisting of MBMP, NEPA, RADA and the NWC managed the River Action with the Action Boyz Project
<b>Enhancing Community Involvement</b>	
Regular and substantive input from communities that live within the watershed given to Local Watershed Management Committees.	Community and government representatives jointly participated in increasing numbers at meetings of WMCs and their Task Forces as demonstrated in meeting minutes.



Elements of Project Strategy	Achievements During Project Year 4
Encouraging the development of sub-project activities that are community-based and community-driven.	Demonstrated and documented applicability and cost-effectiveness of water harvesting and constructed wetlands technologies for use in individual households and schools.
	Improved livelihoods of farmers from timber trees, fruit trees hot pepper, honey, vegetable and pineapple production projects in an environmentally sensitive way. .
	Implemented water supply improvement projects in three communities in response to community demand.
	Supported to 12 community-initiated clean up campaigns through the provision of tools, cleaning gear, garbage bags, and other supplies.
Supporting strategic partners to ensure that sub-project activities are sustainable.	Coordinated with Forestry Department to implement Plant A Tree Program. Conducted a series of capacity building activities with NEPA departments. Support provided to RADA to reimburse excess travel claims of officers on R2RW related business.
	Worked with NGOs such as MBMP and JCDT to implement effective community outreach programs in a sustainable way.
	Designed the Rio Grande water quality monitoring program to build on and coordinate existing activities of key partners
Linking community involvement processes to all public awareness and environmental education activities.	Increased public awareness of watershed issues and successes via radio, newspapers, and the internet on over 30 occasions featuring community residents.
	Completed implementation of the “River Action with the Action Boyz” program in seventeen communities of the GRW.
	Produced and distributed sixty “Enviro Kits” containing over 100 brochures, booklets, posters and other environmental information to community leaders and public awareness officers
	Involved resource persons from state agencies to discuss solutions after performances of community skits by Action Boyz.
Integrating gender considerations into community involvement approaches.	Completed update of Annual Gender Equity for Sustainable Watershed Management in March 2004

Elements of Project Strategy	Achievements During Project Year 4
Identifying models of “local watershed stewardship” and “community compliance strategies” that could be adopted during R2RW.	The Green Village Award Program 2003 was successfully completed with an Awards Ceremony that recognized the top three communities of the Great River Watershed based on environmentally sound stewardship activities. The Green Village Award Program is an annual stewardship award program that will (1) give recognition to communities that implement specific stewardship activities, (2) encourage cooperation of communities, state agencies, ENGOs, and private sector, and (3) permit the GRWMC to gauge the impact of its activities at the community level.
Strengthening NEPA field staff in community outreach and mobilization skills directly, and through partnerships with other organizations.	Provided training in Advanced Participation Methods to staff of NEPA and SDC to build their capacity in community animation and developing community action plans
	Training provided in video techniques, writing effective press releases, stewardship and leadership, and disseminating environmental education
<b>Identifying Leverage Points</b>	
Applying the Gender Equity Mechanism piloted by the Planning Institute of Jamaica to gain insights into key individuals and groups with influence over the shaping of public opinion.	Sensitization training in Gender Equity mechanisms conducted with GRWMC, RGWMC and partner agencies.
Adopting social marketing strategies.	Acting Lessons given to Action Boyz to improve performances and ensure delivery of messages.
Targeting skills-building initiatives, tools for development, and information provision to leverage social, economic or environmental change.	Conducted focus group testing of C&E posters to adapt to literate and semi-literate audiences.
	Capacity of 100 WMC members and partners strengthened through a range of Project-supported training courses including topics such as managing meetings, taking minutes, fund raising and proposal writing
	Provided technical assistance to the SWB to successfully develop the Integrated Water and Coastal Area Management project with funding from the Global Environmental Facility
Encouraging joint partnership activities and leveraging the human and financial capital required to undertake them.	NEPA, NWC, FD, RADA, and community members continue to work together through the GRWMC to review, amend, and refine grant applications to R2RW.
	Water quality monitoring program in the Rio Grande designed as a joint partnership of NEPA, NWC, WRA and communities building on existing programs of agencies

Elements of Project Strategy	Achievements During Project Year 4
	Fundraising and proposal writing training done jointly with the Environmental Foundation of Jamaica and the Canada Green Fund
Assessing each activity to ensure that it utilizes leverage points to enhance its impact.	Planning for Environmental Unity through Faith Conference done through a steering committee involving leaders from 7 faith based organizations
Collaborating with other environmental projects and initiatives working towards similar objectives in the same geographic area.	R2RW hosted a delegation from USAID/Honduras to share experiences and insights on marine life conservation, waste management, and community-based contributions to watershed health in October 2003
	In Portland, worked with existing agencies to implement public awareness programs in a coordinated way: JCDDT in the upper Rio Grande, PPDC in the lower Rio Grande, and the PEPA and the 4-H in schools.
	Worked closely with ENACT to field test, finalize, and distribute "Pocket Guide on Environmental Regulations in Jamaica", in developing and implementing symposia for magistrates, and designing institutional C&E Training Program.
Encouraging communities and strategic partners to leverage funding from other donors.	GRWMC successfully secured private sector funding for the Green Village Award program. The community of Retrieve successfully applied for funds from Canada Green Fund to host their annual environmental fair.
	R2RW funds leveraged NRCA Board funds to implement two magistrates symposia for 150 persons, and deliver courses prepared under contract with MIND
<b>Applying Appropriate Practices</b>	
Introduce farming systems and technologies that will stimulate economic growth and retard resource degradation.	Benefited 210 farmers through 4 training sessions as part of workshops and field days on various aspects of sustainable agriculture including: bio-fertilizers, land husbandry, soil conservation, and agroforestry as a cropping system.
	Rio Grande Land Management Project focused interventions in the RGW in six community based agro-forestry projects with supporting technical input from State Agencies and supporting special studies from the UWI
Improve watershed management by applying sanitation systems, water monitoring, public awareness, and communication.	Reducing uncontrolled wastewater discharge by supporting construction of 17 water harvesting and constructed wetland systems.
	Initiated special study with CASE to establish demonstration plots which show that recycling and reuse of wastewater in agriculture is financially rewarding and technically sound.

Elements of Project Strategy	Achievements During Project Year 4
	<p>Completed water quality monitoring program in the Great River in cooperation with UWI and reported findings to the watershed community at Task Force Meetings and Annual General Meetings.</p> <p>Began implementation of Sanitation Management Anchor Project that included analysis of effluent quality from constructed wetlands</p>
<p>Investigate and demonstrate ways to conserve natural resources establish locally adapted crop varieties, meet local production needs of livestock focusing on small ruminants (sheep and goat).</p>	<p>Initiated cooperation with CASE to demonstrate the reuse of treated effluent from a wastewater treatment system in agriculture – including raising ornamental fish, establishing hydroponics, and growing organic herbs and spices – is financially rewarding and technically sound.</p> <p>Supported improved goat production in two locations in the GRW.</p>
<p>Provide infrastructure such as water.</p>	<p>Through the R2RW grants program, designed and improved rural water supply projects in three communities of the RGW. One of the major reasons for supporting the improvement of water supply projects in the communities is to improve the personal hygiene practices, by providing a constant water supply. This will also allow the members of the community to perform their sanitary activities at their homes, rather than in the rivers, thereby protecting the source.</p>
<p>Increase productivity through laborsaving equipment, improved tools, and expanded use of quality planting material.</p>	<p>Planting, weeding and care of pineapples demonstrated to farmers of the upper GRW using improved practices and reintroduction of varieties lost to the area</p> <p>Continued implementation of Plant-a-Tree Campaign to work with farmers in “highly visible” deforested land in the GRW to (1) identify where tree-planting activities will take place; (2) clarify how trees would be distributed; (3) distribute 12,000 forestry tree seedlings and 5,000 fruit tree plantlets</p> <p>Experimented with the use of wheel hoes, and continued multiplication of disease resistant banana varieties.</p>
<p>Develop and disseminate low-cost sanitation solutions that are environmentally sensitive.</p>	<p>Produced an instructional video documenting the installation of constructed wetland technologies in cooperation with the Montego Bay Marine Park’s video unit.</p> <p>Began implementation of Sanitation Management Anchor Project that included detailed cost and physical-chemical analysis of effluent quality from constructed wetlands</p>
<p>Improve the marketing of products from the targeted watershed areas.</p>	<p>Establish marketable products – scotch bonnet peppers, honey – through support to three community-based projects expected to generate J\$6.3 million in local income.</p>

<b>Elements of Project Strategy</b>	<b>Achievements During Project Year 4</b>
	Supported farmers in Cacoon Castle and Mafoota to enhance vegetable production targeted at the hotel markets

### **3. Component 1A: Through Targeted Organizations, Sustainable Environmental Management Practices by Resource Users Identified and Supported in the Great River Watershed**

#### **Introduction**

Component 1 is built on work with local organisations – governmental, non-governmental, private sector, and community-based – to identify and implement appropriate management practices for watershed resource users and to enhance the capacity of targeted communities to improve environmental management.

The work under Component 1A revolves around the Great River Watershed Management Committee (GRWMC) and communities in the Great River Watershed. The GRWMC has been strengthened by R2RW, and it is emerging as a valuable forum for coordination, sharing, and decision-making. For the remainder of R2RW, the GRWMC will increasingly be placed at the front of watershed action, R2RW input will diminish, and the WMC will remain as an integral part of local governance – linked with Parish Development Committees (PDCs) – to engage citizens and government in joint planning and action.

In cooperation with the GRWMC, R2RW reached local organisations – to introduce and disseminate Targeted Appropriate Practices (TAPs) that stimulate income growth, protect the environment, and benefit health. Activities under Component 1A not only promote TAPs but also strengthen the link that has been missing in previous Jamaican watershed management programs – the capacity of organisations to transfer and sustain TAPs over time.

Achievements under Component 1A during the reporting period are described in the following sections.

- 3.1 *Development of the Great River Watershed Management Committee*
- 3.2 *Improved Production of Pineapple for Sustainable Livelihoods – Anchor Project #1*
- 3.3 *Production and Marketing in the Great River Watershed*
- 3.4 *Cleaning and Greening Cambridge – Anchor Project #2*
- 3.5 *Water and Sanitation Activities in the Great River Watershed*
- 3.6 *Public Awareness Activities in the Great River Watershed*
- 3.7 *Gender Considerations Incorporated into Project Activities*

#### **3.1 Development of the Great River Watershed Management Committee**

The objective of these activities is to establish the GRWMC as a viable part of local environmental governance after the completion of R2RW. Previous project years have focused on building the capacity of the organization through resources and direct technical assistance. For the remainder of the Project, R2RW's contribution will diminish and the GRWMC will be obligated to increasingly exercise its new capacity and become a functioning contributor to watershed management. Key to the WMC's function are its four task forces which provide vital direction to actions concerning expanding production and marketing, improving water and sanitation, promoting compliance and enforcement of environmental regulations, and raising public awareness of the watershed.

Work Plan Activity	Activity Description	Achievements During Reporting Period
3.1	<b>Development of the Great River Watershed Management Committee</b>	
3.1.1	Finalize and Implement the GRW Strategic Plan	The Plan was completed and widely distributed among GRWMC members and stakeholders. An action-planning workshop was held with the GRWMC executive in January 2004 based on the objectives and activities outlined in the Plan.
3.1.2	Management Activities of the GRWMC	<b>Production and Marketing Task Force</b> Link established to export market for scotch bonnet peppers produced by R2RW-supported farmers. Farmers' income significantly improved through sale of several hundred pounds of peppers each week.
		<b>Water and Sanitation Task Force</b> Pisgah All-age School wastewater project completed  Issues which prevent completion of Mafoota community-managed car wash and path to their resolution reached.  Clean-up days held at Ramble Pond, Cedar Grove, Chester Castle, Cambridge, York and Belmont. Additional "hot spots" identified for future action include Dundee and Seven Rivers.
		<b>Compliance and Enforcement Task Force</b> Several anecdotal reports suggest that enforcement officers including field staff and magistrates are more actively prosecuting environmental violations  The Pocket Guide on Environmental Regulations and popular material on compliance and enforcement were used in training programmes for compliance and enforcement field officers and community leaders  MIND contracted to develop four courses to aid NEPA's institutionalisation of this training programme
		<b>Public Awareness Task Force</b> Action Boyz community theatre presented in several more venues – R2RW support completed
3.1.3	Develop Plan to Phase Out R2RW Support to GRWMC	Workshop to develop Phase Out Plan designed and implemented

### 3.1.1 Finalize and Implement the GRW Strategic Plan

The Plan was finalized and widely distributed among stakeholders. A workshop was held with the GRWMC executive in January 2004 to confirm vision and strategic goals, and to prepare a workplan based

on the objectives and activities outlined in the Plan. The Plan is for the period January 2004 to December 2008.

### **3.1.2 Management Activities of the GRWMC**

Regular meetings of the GRWMC, its executive, and the four task forces continued throughout the year with a conscious strategy toward diminishing the direct role of R2RW staff in their planning and management. Key achievements of each task force are tabulated above.

### **3.1.3 Develop Plan to Phase Out R2RW Support to GRWMC**

During Project Year 3, three important reports were prepared to lead the way toward phasing out R2RW input to WMCs:

- ✍ Procedures Manual: Establishing and Operating a Local Watershed Management Committee;
- ✍ Review of Local Watershed Management Committees in Jamaica; and
- ✍ Report on Options for Great River Watershed Management Committee.

The first two reports developed generic methods of establishing LWMCs including recommendations on mandate, governance and participation strategies, and linkages with the NIWMC, policy and legislation issues. These two reports also identified and examined registration options, requirements for registration and costs. The third report examined in detail registration options and made specific recommendations for the GRWMC to continue as an unregistered entity, and to consider at a later date registration as a company limited by guarantee.

During the current reporting period, the GRWMC has taken specific steps toward the eventuality of no support from R2RW. Beginning with the January 2004 meeting of the GRWMC, the Chair, in his opening remarks, clearly stated “that this is the beginning of the end of the R2RW project, meaning that after the 18 months the R2RW will close and the committee will then be on our own to carry on the work by ourselves.” Such consistency of focus was important to establish at this point and is expected to guide planning and direction of the GRWMC throughout the life of R2RW.

On Wednesday April 7, 2004 a workshop was held which developed a Phase-out Plan for the next 12 months. There were 27 participants in the workshop, which brought together members of the GRWMC executive, key partner agencies, the SDC and Parish Council and community based organizations. The Phase-out Plan was further refined at a subsequent meeting of the GRWMC executive committee and presented to the stakeholders of the Great River Watershed at the quarterly meeting of the GRWMC on April 29<sup>th</sup>. See Appendix 1 for details of the implementation plan.

## **3.2 Improved Production of Pineapple for Sustainable Livelihoods – Anchor Project #1**

Pineapple production in the upper Great River Watershed is widespread and poor cultural practices make it a significant user of pesticides resulting in soil degradation. The specific objectives of this Anchor Project are to:

- ✍ Establish pineapple production demonstration plots that show improved pineapple production in an environmentally sustainable system;



- ✍ Establish 100 new acres of improved pineapple in the Great River Watershed on farm plots among approximately 200 farmers;
- ✍ Improve income generation through new and developmental strategies of culturing pineapples; and
- ✍ Use training workshops, information booklets, and a video to increase the awareness of pineapple growers.

R2RW funding will be used for inputs, signage and technical assistance for demonstration plots, and inputs and training for the production phase.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>3.2</b>	<b>Improved Production of Pineapple for Sustainable Livelihoods – Anchor Project #1</b>	
3.2.1	Secure Buy-in From Stakeholders Including RADA on Anchor Project	Buy-in obtained from task forces of the GRWMC, RADA, NEPA, JAS, PCA, PC, CDCs, and SDC
3.2.2	Marketing Analysis and Investigation of Local Processing Potential	Preliminary investigations commenced.
3.2.3	Hire Project Manager	Hired Sadie Dixon as Project Manager
3.2.4	Site Selection and Soil and Water Analysis	Five demonstration sites selected and soil analyses completed
3.2.5	Arrangements for Planting Material Including Opportunities for Tissue Culture with SRC	No success with tissue culture at SRC. Investigating UWI Biotechnology Centre.
3.2.6	Public Awareness for Anchor Project	Video production initiated. Information booklet written and is being used.
3.2.7	Demonstrate Environmentally Friendly Production Practices	Demonstration plots initiated using contour planting, variety comparison, fertilizer placement and weed management.

### **3.2.1 Secure Buy-in From Stakeholders Including RADA on Anchor Project**

As reported in “Budgets and Implementation Plans for the Anchor Projects”, a report recently generated by R2RW, the implementation schedule was completed and placed in a gant chart for the period January 2004 to June 2005. This report also presents specific indicators, which will be used to assess the success of the Project. The main activities are also reflected in the Report in a detailed budget. The primary responsibility for implementing the Anchor Projects lies with the Project Manager, however, she is supported by technical team members from R2RW, the task forces of the GRWMC, RADA extension officers and other support agencies including NEPA, Jamaica Agricultural Society (JAS), Pesticides Control Authority (PCA), Parish Council (PC), Community Development Committees (CDCs), and the Social Development Commission (SDC).

### **3.2.2 Marketing Analysis and Investigation of Local Processing Potential**

Some preliminary investigations have been done to assist with formulation of a Scope of Work for STTA.

### **3.2.3 Hire Project Manager**

After a competitive search, Sadie Dixon was hired as the Project Manager for this Anchor Project. Ms. Dixon has been seconded to R2RW by the RADA office in Montego Bay. She is a highly respected agriculture specialist, is highly knowledgeable about pineapple growing, is an experienced community animator, and has been cooperating closely with R2RW as an active member and leader of the GRWMC and its Production and Marketing Task Force.

### **3.2.4 Site Selection and Soil and Water Analysis**

Five demonstration sites have been selected – Chesterfield, Coffee Ground, Maybole, Ginger Hill, and Retrieve. Rural Physical Planning Unit (RPPU) of the Ministry of Agriculture has completed soil tests.

### **3.2.5 Arrangements for Planting Material Including Opportunities for Tissue Culture with SRC**

Two attempts at tissue culture failed because of bacterial contamination. Attempts to import materials were frustrated by the presence of pink mealy bug and licensing restrictions in source countries. Collaboration has commenced with the UWI Biotechnology Center.

### **3.2.6 Public Awareness for Anchor Project**

Work towards producing a video was initiated. Groups of farmers and sites for film footage collection were identified, a preliminary script was drafted, and cost estimates were solicited from two video production companies. An extension booklet was written and is being used widely even outside the project area.

### **3.2.7 Demonstrate Environmentally Friendly Production Practices**

Five demonstration plots were established, and land was prepared at four of the plots. Each plot will demonstrate land husbandry best practices and proper cultural practices including fertilizer application, weed control and spacing.

## **3.3 Production and Marketing in the Great River Watershed**

The objective of the activities described in this section is to increase the area of agricultural land under sustainable use. Activities started under the third annual work plan promoting sustainable agricultural practices continue with a focus on documenting achievements, disseminating lessons learned, and planning to phase out R2RW support to this area by the end of the Project Year. Continuing activities include:

- ✍ Establishing demonstration plots of disease resistant bananas and plantains;
- ✍ Supporting hot pepper production and marketing for export;
- ✍ Developing and marketing agricultural by-products, particularly honey;
- ✍ Improving goat quality and meat production; and
- ✍ Supporting a broad-based Plant-a-Tree Campaign

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>3.3</b>	<b>Production and Marketing in the Great River Watershed</b>	
3.3.1	Improved Crop Varieties	Much success with pepper. Improved FHIA varieties of banana and plantains have been introduced and multiplied through the Banana Board Research Department. The establishment of field demonstration plots in the watershed is being planned.
3.3.2	Livestock Improvement	Two herds of goats are doing well.
3.3.3	Plant-a-Tree Campaign	In collaboration with the Forestry Department, and RADA fruit and timber trees are being distributed and planted

### 3.3.1 Improved Crop Varieties

The on-going projects, which have received intensive support from R2RW for nearly two years are beginning to show the potential to generate income for farmers. The Rushea Scotch Bonnet Pepper project is the most advanced with very poor farmers now generating J\$10,000 (US\$165) of income in a typical week. Linking the Rushea farmers to a reliable and reputable exporter who collects pepper and pays farmers promptly was key to the success observed to date.

Location	Objectives	Partners	Status During Reporting Period
<b>On-going Projects</b>			
Rushea	Expand income for 13 farmer families through export marketing of scotch bonnet peppers, produced using environmentally friendly irrigation, soil management, and fertilization systems	Rushea Farmers Group	In March 2004, farmers sold 5700 pounds of peppers to an exporter.  R2RW requires that part of the income generated be used for local environmental improvements. Significant income has been generated, but local environmental improvements are still in progress. Environmentally friendly practices are being implemented. The project is expanding and farmers are diversifying.  Status: completed  Completion date: December 2003
Cedar Grove	Expand income for nine farmer families through export marketing of scotch bonnet peppers produced using environmentally friendly irrigation, soil management, and fertilization	Cedar Grove Farmers Group	R2RW requires that part of the income generated be used for local environmental improvements. Production was lower than anticipated, and income generation is not as substantial as Rushea.  Status: Completed  Completion date: December 2003

Location	Objectives	Partners	Status During Reporting Period
Hermitage	Improve livelihoods and increase environmental awareness by expanding honey production and sales	Hermitage Honey Producers	<p>Increased environmental protection through tree preservation is a key outcome. Some income generation has begun. No tree planting/preservation has occurred.</p> <p>This will be the first product labeled as "endorsed" by the Great River Watershed Management Committee</p> <p>Training provided in business management and marketing.</p> <p>Status: 70% completed</p> <p>Completion date: June 2004</p>
<b>New Projects During Reporting Period</b>			
Mafoota	<p>Construct water storage ponds for irrigation to be used by 20 farmers during dry season</p> <p>Erect facilities for producing vegetable and herb plantlets and a holding/distribution center for tree seedlings</p> <p>Enhance livelihoods and demonstrate environmentally friendly agricultural practices including non-use and judicious use of pesticides and inorganic fertilizers, composting, and soil and water conservation</p>	Mafoota Farmers Group	<p>Mafoota Farmers Group has been supplying Sandals Resorts with local and exotic vegetables for over four years. The Group also supplies local markets and Sunset Beach Resort Hotel</p> <p>Project developed through the active participation of local officers of the RADA and NEPA with technical input from R2RW</p> <p>Project discussed and recommended for approval by the Grant Selection Committee of the GRWMC</p> <p>Start date: March 22, 2004</p> <p>Completion date: September 30, 2004</p>
Cacoon Castle	<p>Reverse environmental degradation from shifting cultivation and poor agronomic practices</p> <p>Introduce improved, practical and affordable technologies to produce exotic vegetables and herbs, semi-perennials (pineapples) and perennials (fruit trees and timber) for full-year cultivation</p> <p>The main market for the products will be Round Hill Hotel, St. James and local public markets</p>	Cacoon Castle Farmers' Group/Cacoon Castle Jamaica Agricultural Society	<p>Project developed through the active participation of local officers of RADA, Round Hill Hotel, and NEPA with technical input from R2RW</p> <p>Project discussed and recommended for approval by the Grant Selection Committee of the GRWMC</p> <p>Start date: March 22, 2004</p> <p>Completion date: December 31, 2004</p>

### 3.3.2 Livestock Improvement

Goat meat is central to typical Jamaican diets, but a significant amount of it is imported and the local supply is generally not of high quality. The two projects tabulated below were intended to address these concerns while also demonstrating improved goat management to reduce their negative environmental impacts.

Location	Objectives	Partners	Status During Reporting Period
Knockalva	<p>Establish a "Mother Farm" to serve as focal point for increasing goat production</p> <p>Establish goat rearing groups</p> <p>Demonstrate improved systems for goat shelter, feeding and security to local farmers</p> <p>Establish a program to support local buck stations to improve local stock</p>	Knockalva Agricultural School	27 animals are in place including an increase of three animals. The animals are in good condition. Over 100 students have benefited from practical goat husbandry training through the project. Buck service has been made available to the community.
Montpelier	<p>Establish a "Mother Farm" to serve as focal point for increasing goat production</p> <p>Establish goat rearing groups</p> <p>Demonstrate improved systems for goat shelter, feeding and security to local farmers</p> <p>Establish a revolving doe scheme</p>	<p>4-H Clubs of St. James</p> <p>Montpelier Agricultural Research Station</p> <p>Inter-American institute for Cooperation on Agriculture</p> <p>RADA and MINAG</p>	The herd has increased by 15 animals and is in very good condition.

### 3.3.3 Plant-A-Tree Campaign

13,500 trees have been planted since this Campaign began. During the reporting period, the contract for previous Campaign Coordinator, Mr. Nerval Brown ended. Sadie Dixon has assumed his duties with support from Neville Williams.

Location	Objectives	Partners	Status During Reporting Period
<b>New Projects During Reporting Period</b>			
Catadupa	<p>Resuscitate 20 acres of existing cocoa</p> <p>Establish 15 acres of new cocoa</p> <p>Improve cocoa production by approximately 20 tons of dried beans per annum, after four years</p> <p>Support existing cottage industry producing chocolate bars for local and export markets.</p> <p>Use minimal tillage, excellent root structure, and heavy leaf litter of cocoa for land stability and erosion control</p>	<p>Catadupa Farmers Group</p> <p>RADA</p> <p>Cocoa Industry Board</p>	<p>Innovative, income generating contribution to tree planting campaign initiated</p> <p>Project developed through the active participation of R2RW, the Cocoa Industry Board, and RADA</p> <p>Project discussed and recommended for approval by the Grant Selection Committee of the GRWMC</p> <p>Start date: March 2004</p> <p>Completion date: December 2004</p>

### 3.4 Cleaning and Greening of Cambridge – Anchor Project #2

The objectives of this Anchor Project are the long-term environmental improvement of the town of Cambridge in the upper GRW through re-developing the local Community Development Committee (CDC), increasing public awareness of environmental regulations, and supporting targeted actions to improve the environmental quality of the area. The CDC will be supported to serve as a local governance structure to facilitate community involvement in the management of its natural resources.

As with the other three Anchor Projects, this one will focus project resources on multiple aspects of broad-based social development in Cambridge ranging from governance to addressing solid and liquid waste management issues.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>3.4</b>	<b>Cleaning and Greening of Cambridge – Anchor Project #2</b>	
3.4.1	Develop Governance Mechanism for Solid Waste Management	<p>Successfully engaged Parish Council and other local stakeholders around a range of high priority solid waste issues</p> <p>Developing baseline community profile through participatory action-planning</p> <p>Established project office with tables, chairs, and flip chart stands.</p> <p>Initiated local capacity building through training and participatory processes</p> <p>CDC received successful evaluation from the Department of Cooperative and Friendly Societies</p> <p>Completed focused action planning to address extension of Infant School (through JSIF) and greening of the school grounds.</p>
3.4.2	Improve Land Management and Sanitation Practices	<p>Developed plan to remove solid waste from central Cambridge in collaboration with the St. James Parish Council and the National Solid Waste Management Authority.</p> <p>Started “Greening of Cambridge” at Office Premises in collaboration with Land Management Team.</p>
3.4.3	Public Awareness for Anchor Project	12-month campaign designed.

#### **3.4.1 Develop Governance Mechanism for Solid Waste Management**

As reported in “Budgets and Implementation Plans for the Anchor Projects”, the schedule for implementing the project was completed and placed in a Gantt chart for the period January 2004 to June 2005. This report also presents specific indicators to assess the success of the Project. The main activities are also reflected in the Report in a detailed budget.

After a competitive search, Janet (aka Patti) Bedasse was hired as the Project Manager for this Anchor Project. Ms. Bedasse comes to R2RW after a highly regarded career as a teacher, banker, and community development specialist. The Project established an office with considerable community involvement, and Ms. Bedasse in partnership with the SDC initiated her input to the Project through intensive participatory action planning and community profiling. She was able to rapidly mobilize and focus the existing community leadership toward very specific community-wide activities.

The primary responsibility for implementing the Anchor Projects lies with the Project Manager, however, she is supported by technical team members from R2RW, the Task Forces of the GRWMC, strong community involvement through an existing and well-organized PTA, RADA extension officers and other support agencies including NEPA, Jamaica Agricultural Society (JAS), Pesticides Control Authority (PCA), Parish Council (PC), Community Development Committees (CDC), and the Social Development Commission (SDC). In addition, the Cambridge

CDC has progressed to the point of being successfully evaluated for registration as a legal entity by the Department of Cooperative and Friendly Societies of the GOJ.

### **3.4.2 Improve Land Management and Sanitation Practices**

Significant steps were taken with the Cambridge community and GRWMC activists to identify priority issues and a short-term action plan focused on solid waste management and advocating for in an informal abattoir to relocate to a more appropriate location.

### **3.4.3 Public Awareness for Anchor Project**

A proposal for a 12-month public awareness campaign has been developed for presentation, acceptance, and implementation in Cambridge. At the same time, a questionnaire was tested under R2RW leadership to examine gender equity in a local women's group.

## **3.5 Water and Sanitation Initiatives in the Great River Watershed**

Stakeholders in the GRW continually rank sanitation – both solid and human waste disposal - as their highest priority. Multiple related activities have been completed or are underway in the watershed to address these issues including supporting a Water and Sanitation Task Force as part of the GRWMC, completing demonstration constructed wetlands at schools in Pisgah and Retrieve, water quality sampling to determine levels of priority pollutants.

Solid waste management is also a high priority of stakeholders in the GRW. Key partners such as the National Solid Waste Management Authority (NSWMA), and the Montego Bay Marine Park (MBMP) are engaged in organizing community clean-ups and organizing a solid waste management seminar for Montego Bay. Communities throughout the watershed, in part inspired by the Green Village Awards Program, have been taking increasing interest in organizing community clean-ups, and Cambridge is expected to take significant actions in the early weeks of the next reporting period.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>3.5</b>	<b>Water and Sanitation Initiatives in the Great River Watershed</b>	
3.5.1	Water and Wastewater Intervention	Reduced fecal pollution of the environment by completing construction of artificial wetlands at two large schools in the upper watershed
3.5.2	Solid Waste Management Interventions	Extensive participatory planning conducted to prepare for a Solid Waste Management Seminar in Montego Bay in April 2004  Seven community clean-up days accomplished in conjunction with public awareness activities  Major community clean-up in Cambridge as part of "Cleaning and Greening of Cambridge" Anchor Project
3.5.3	Water Quality Monitoring on the Great River	Preliminary results show elevated levels of nitrates, phosphates and fecal coliform concentration. Recommendations generated for land based activities to reduce river contamination.



### 3.5.1 Water & Wastewater Intervention

The purpose of these interventions is to improve watershed conditions – reduce fecal pollution, control soap disposal, and manage motor oil disposal - by improving multiple aspects of wastewater management with a focus on introduction and mainstreaming of innovative technologies.

Location	Objectives	Partners	Status During Reporting Period
Content	Improve wastewater management through water harvesting, improved sanitary facilities, and a constructed wetland  Expand tree planting at the local community center	Content Progressive Youth Club	Status: Completed
Mafoota	Decrease surface water pollution by moving harmful practices out of rivers and into controlled settings at a community car wash, laundry facility, and toilet using a constructed wetland and an oil separator	Mafoota Citizens' Association  Mafoota Youth Club	Project is on hold pending resolution of ownership, participation and management issues. The community is presently engaged in a participatory process to resolve conflicts before moving forward.  Status: 90% completed  Completion date: 1st quarter 2004
Pisgah	Improve wastewater management at a large school through water harvesting; using rainwater to operate flush toilets that replace pit latrines; demonstrate the use of constructed wetland to treat wastewater	Pisgah All Age School	Status: Completed
Retrieve	Improve wastewater management at a large school through water harvesting; using rainwater to operate flush toilets that replace pit latrines; demonstrate the use of constructed wetland to treat wastewater	Retrieve All Age School	Status: Completed

### 3.5.2 Solid Waste Management Interventions

The management and disposal of solid waste is an issue throughout Jamaica and particularly resonant in rural communities – where services are minimal at best. Beginning in March 2004, a Solid Waste Task Force with membership from R2RW, Montego Bay Marine Park Trust (MBMP), Western Parks and Markets (WPM), the National Solid Waste Management Authority (NSWMA), St. James Parish Council (SJPC), Garbage Disposal & Sanitation systems Ltd. (GDSS), Community Organizations for Management and Sustainable Development (COMAND), and the Office of Disaster Preparedness & Emergency Management (ODPEM) began planning a two-day seminar planned for April 2004. The objectives for the seminar are as follow:

- ✍ Bring agencies involved in solid waste management together with the public;
- ✍ Create awareness of NSWMA’s mandate, service delivery, and regulations for enforcement;
- ✍ Analyze and close the gap between policy and reality;
- ✍ Enhance awareness on health and safety issues;
- ✍ Foster stewardship through reduce, reuse, and recycle messages;
- ✍ Reduce land-based sources of pollution of the marine environment;
- ✍ Identify opportunities and incentives for partnerships in waste management; and
- ✍ Generate proposals for improved waste management, e.g. sediment traps.

A Jamaican consultant, Ianthe Smith, was engaged under subcontract to MBMP and R2RW to lead preparations and documentation of the Seminar under a detailed Scope of Work. MBMP, the GRWMC, EFJ, and R2RW will work in partnership to cover necessary costs and logistics of the event. Seminar outputs will focus on an action plan to be implemented by stakeholders and is expected to include:

- ✍ A community education program;
- ✍ A public awareness program;
- ✍ Enforcement of new regulations;
- ✍ Installation of composting solutions;
- ✍ Separation of garbage at source;
- ✍ Reduced risk of flooding from garbage in gullies;
- ✍ Reduced use of plastic shopping bags; and
- ✍ A recycling center at Retirement/St. James.

In addition, products will include a CD of Seminar presentations, a gap analysis, canvas bags featuring “Have a Nice Bay” with MBMP logo for each participant, a video of the Seminar, and a Seminar report. The action plan will be circulated to the 100 expected participants and 50 other interested agencies. The Seminar agenda is presented in Appendix 2.

### 3.5.3 Water Quality Monitoring on the Great River

Dr. Anthony Greenaway submitted the final report for this activity. Findings include elevated levels of both nutrients and fecal coliform in the river and they are presented in Appendix 3.

### 3.6 Other Public Awareness Activities

The objectives of this set of activities to increase local level environmental stewardship while establishing mechanisms to carry it forward through time.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>3.6</b>	<b>Other Public Awareness Activities</b>	
3.6.1	Build Consensus from WMCs, Anchor Project Mgrs & Partners on PA Strategy	GRWMC and RGWMC consulted re expansion of successful strategies in GRW and initiation of new approaches – drama workshops; 4H club activities and PDC strengthening in RGW.
3.6.2	Enhance Environmental Awareness Through Community Drama (Action Boyz)	Phase 2 of the R2RW partnership with the Montego Bay Marine Park completed with 10 performances of the two community dramas developed by the Action Boyz

Work Plan Activity	Activity Description	Achievements During Reporting Period
3.6.3	Promote GRW Green Village Stewardship Program	Green Village awards ceremony was held at Blue Hole Nature Park in December 2003. The Competition has played a positive role in motivating communities to get involved. The Second phase will be launched in May 2004
3.6.4	Participate in Fairs, Expos and Community Environmental Fora	Project participated actively in Pisgah Environmental Fair, National Youth in Agriculture Expo, and World Water Day events
3.6.5	Design Baseline and Mid-point Indicators for New and Existing Public Awareness Strategies	R2RW staff investigated approaches and indicators for an education strategy for engaging non-literates persons.
3.6.6	Plan and Implement 2 <sup>nd</sup> Youth & the Environment Forum	Forum planning initiated
3.6.7	Plan and Implement Seminar on Religion and the Environment	Forum planning initiated for proposed date of May 20 <sup>th</sup>
3.6.8	Finalize Content, Produce and Provide Environmental "Kits" to Youth and Community Organizations	Kit content finalized and 120 kits under production

### **3.6.1 Build Consensus from WMCs, Anchor Project Managers and Partners on Public Awareness Strategy**

In the GRW, the established strategies of the Green Village Award Program and Action Boyz in community drama for education were continued for a second phase. In addition, public awareness work in communities deepened through composting demonstrations on clean up days and the involvement of 15 community representatives at the Solid Waste Management workshop.

### **3.6.2 Enhance Environmental Awareness Through Community Drama (Action Boyz)**

The Action Boyz drama troupe, a partnership between R2RW and the Montego Bay Marine Park, has become established as a successful and desired promoter of environmental awareness. During the reporting period, R2RW's support to them came to an end as the ten community performances agreed to in the second phase of this partnership have been completed – 9 in the GRW and 1 in the RGW. Two complete show pieces entitled "Wah Yuh Dash Wey Nuh Wash Wey" (What You Throw Away Doesn't Wash Away) and "Saal Ting an Wata Inna Trobble" (Food and Water are in Trouble (from pesticide/herbicide spraying)) have been developed by the group. Each performance consists of both entertainment and education supported by a PowerPoint presentation and a participatory discussion on watersheds. During the reporting period, performances were held in the GRW at Bickersteth Primary School, Chester Castle Basic School, Lethe All Age School, Dundee All Age School, Great River District Shed, Roehampton Primary School, Content Community Centre, Faith Christian Fellowship Church in Houghton Grove, and Seaford Town All Age School. In addition, for the first time, performances were held in the RGW in February 2004 in conjunction with World Wetlands Day. Typically, 100 to 200 people attended each performance, and one performance was videotaped for use in other venues.

In order to evaluate the success of the project, KAP questions were prepared to measure the effectiveness of the project. With the completion of R2RW support, it is anticipated that follow up studies will be conducted in Lethe and Chester Castle where baseline were established.

Following an Action Boyz performance in the RGW, the Port Antonio Theatre Group submitted a proposal for support to R2RW that was approved during the reporting period (see section 4.5.3).

### **3.6.3 Promote GRW Green Village Stewardship Program**

12 communities made applications to the Green Village competition. Field visits were conducted, and an awards ceremony was held at Blue Hole Nature Park in December 2003. The USAID/Jamaica Mission Director attended the awards ceremony. The agenda for the awards ceremony is presented in Appendix 4. The Green Village Program has stimulated significant interest, and anecdotally, competition has played a positive role in motivating communities to get involved and win. A second phase of the Program will be launched in May 2004.

### **3.6.4 Participate in Fairs, Expos and Community Environmental Fora**

Pisgah Environmental Fair, World Water Day 2004 Monday March 22<sup>nd</sup>, 2004

**World Water Day** was celebrated at the Pisgah All Age School, Pisgah St. Elizabeth. The theme for World Water Day 2004 was “*Water and Disasters - Water, Sanitation and Hygiene.*”

The guest speaker was, Senator, the Honorable Deika Morrison who unveiled a sign, which marks the start of the Great River Watershed at Pisgah. The sign is part of ongoing environmental and watershed awareness activities in the area by the Ridge to Reef Project. The Pisgah All Age School's 9-11 year olds who participated in an environmental art competition late last year contributed the artwork for the sign. Other highlights of the day's activities included a tour of a “mini forest” and a constructed wetland sanitation system (a low cost environmentally friendly sanitation technology) at the Pisgah School, which was funded by the Project.

The Pisgah fair witnessed representatives from a number of allied agencies, stakeholders and students from within the Great River Watershed sharing information on soil conservation, tree planting, proper solid waste disposal, organic farming among other important sustainable environmental practices.

World Wetlands Day Activities, Monday February 2, – Wednesday February 4, 2004 RGWMC  
On February 2<sup>nd</sup> R2RW in association with the CWIP2 and Portland Environmental Protection Agency (PEPA) celebrated World Wetlands Day under the theme “***From the Mountains to the Sea - Wetlands at Work for Us***”.

The activities included a ceremony to mark the day, at the new Port Antonio Marina in the parish of Portland at 10:00am on February 2<sup>nd</sup>. The highlights included presentations on natural and constructed wetlands, the importance of wetlands by guest presenter Peter Edwards, Scientific Officer at the Centre for Marine Sciences UWI, and the launch of the dynamic drama/dance group, the Action Boyz out of St James. The Action Boyz performed their highly acclaimed environmental drama “*Wey you dash wey nuh wash weh*”.

Other presentations were made by Kevin Rushing, Deputy Mission Director of the United States Agency for International Development, Franklin McDonald, CEO of the National Environmental and Planning Agency and Dr. Scott McCormick, manager of the CWIP 2 project and Leo Douglas, Project Support and Logistics Manager of the R2RW.

Participation on the day's events was oversubscribed by over 100 percent with in excess of 150 participants in attendance. The day also received excellent media attention by radio, the print media and television.

The Action Boyz went on to perform in the communities of Windsor and St. Margaret's Bay over the following two days in well attended community environmental meetings which attracted crowds of over 300 and 130, respectively.

#### Other Activities

The Project was represented in several other activities including the:

- ✍ Seminar on Watershed Management, CASE – November 25, 2004
- ✍ Nyamins and Jammins 2003
- ✍ Round Hill Hotel Environmental Fair – December 3, 2004
- ✍ Institute of Jamaica's Earth Day Fair 2004
- ✍ CASE Career Fair April 2, 2004
- ✍ National Youth in Agriculture Expo – March 18, 2004
- ✍ Pisgah Community Environmental Church Service – March 21, 2004
- ✍ 4-H National Achievement Day, 2004

#### **3.6.5 Design Baseline and Mid-point Indicators for New and Existing Public Awareness Strategies**

R2RW staff held discussions with Claudia Chambers in February 2004 regarding developing indicators and an approach for an education strategy for working with non-literate persons. This will be done in the second half of the year.

#### **3.6.6 Plan and Implement 2nd Youth & the Environment Forum**

Planning for the 2<sup>nd</sup> Forum was initiated during the reporting period. The Jamaica 4H Club will take the lead in contacting potential participants through their 4H Club network. The SDC and schools will also be used to expand participation in the conference.

#### **3.6.7 Plan and Implement Seminar on Religion and the Environment**

Planning for this seminar began with accessing short-term technical assistance. A Scope of Work was developed and a consultant hired to coordinate the Western Jamaica Faith and the Environment Seminar, which is expected to be held on Thursday May 20, 2004. This activity emerged out of the GRWMC's Youth and Environment Conference held in July 2003 where it was articulated that religious organizations are an important social medium through which people of all ages and social classes come together at the local level. As such, religious groups were highlighted as major stakeholders in Jamaica's watersheds and an important partner in promoting environmental stewardship. An environmental forum was suggested as a way to increase public awareness and mobilize the religious organizations of the GRW.

Proposals for leadership of the seminar were solicited from five possible vendors. Two completed responsive proposals, and Ms. Carol Lawes was chosen on the basis of her experience and her detailed proposal that revealed her informed appreciation of both the philosophical and cultural sensitivity of the proposed activity.

The Seminar will contribute to sustainable watershed management through expanding dialogue among key community leaders on actions that residents can take to become more proactive stewards of their local environments.

### **3.6.8 Finalize Content, Produce and Provide Environmental “Kits” to Youth and Community Organizations**

“Enviro Kits” for use by field officers to educate the general public were finalized, reproduced, and prepared for distribution. The kits contain information on the natural resources of watersheds, the State Agencies that promote watershed management, the environmental laws and regulations of Jamaica, the “It Haffi Legal” posters, and tips for carrying out public awareness programs. The kits are targeted at officers of State Agencies responsible for public awareness, the Public Awareness task forces of the GRW and RGW, NGOs, and other community groups seeking to raise the level of awareness of the public on environmental issues.

The “Enviro Kits” are a joint product of NEPA, USAID, R2RW, Forestry Department, BirdLife Jamaica, CWIP2, Jamaica Environment Trust (JET), National Water Commission (NWC), Jamaica Conservation Development Trust (JCDDT), Friends of the Sea, Water Resources Authority (WRA), and the National Solid Waste Management Authority (NSWMA). 120 kits are currently being produced, and the full contents of the kits are tabulated in Appendix 5. Distribution to youth and community organizations will occur in the coming months.

### **3.7 Gender Considerations**

The objectives of this set of activities are to re-energize R2RW to pay adequate attention to achieving both gender equality and gender equity in all aspects of program implementation.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>3.7</b>	<b>Gender Considerations</b>	
3.7.1	Evaluating Gender in the R2RW and Assessing Gender Considerations	This was done through multiple methods and culminated in the analysis done for the annual gender report.
3.7.2	Targeting and Tailoring Activities to Meet Gender Sensitive Needs	Draft questionnaire used with a women's group to test gender equity. More work needed based on findings to refine questionnaire
3.7.3	Provide Annual Gender Report of Project Activities	Draft Annual Gender Report completed and circulated for review

#### **3.7.1 Evaluating Gender in the R2RW and Assessing Gender Considerations**

A questionnaire was designed and tested in Cambridge and Chester Castle (GRW). Participant observations were also carried out in both watersheds, of the level and type of participation in task force meetings and the type of leadership emerging from these structures. Some gender segmentation in sector – related leaderships but there is parity between men and women in overall numbers.

#### **3.7.2 Targeting and Tailoring Activities to Meet Gender Sensitive Needs**

In Cambridge, a questionnaire developed by R2RW staff was used with a women’s group to test gender equity. Staff concluded that more work is needed on the questionnaire before widespread application. This work will occur in the remaining months of Project Year 4.

### **3.7.3 Provide Annual Gender Report of Project Activities**

A draft of the R2RW Annual Gender Report was completed and circulated for comment within R2RW staff. A second draft, incorporating collected comments, will be more widely circulated outside of R2RW.

#### 4. Component 1B: Through Targeted Organizations, Sustainable Environmental Management Practices by Resource Users Identified and Supported in the Rio Grande Watershed

In February 2002, a Strategic Action Planning Workshop was conducted where local stakeholders identified the priority actions needed to maintain the quality of the RGW. Since that time, R2RW has worked to implement or support those identified actions, which are consistent with the overall objectives of the Project.

In order to best engage the local stakeholders throughout Project implementation, R2RW facilitated the establishment of the Rio Grande Watershed Management Committee (RGWMC) that serves as the focal point for coordination and decision-making regarding Project-supported activities in the watershed. Similar to what occurred in the GRW, the RGWMC established four Task Forces to address compliance and enforcement, public awareness, water and sanitation, and land conservation.

Achievements under Component 1B during the reporting period are described in the six sections shown in the following box:

- 4.1 *Development of the Rio Grande Watershed Management Committee*
- 4.2 *Improved Land Management in the RGW – Anchor Project # 3*
- 4.3 *Production and Marketing in the Rio Grande Watershed*
- 4.4 *Water and Sanitation Activities in the Rio Grande Watershed*
- 4.5 *Other Public Awareness Activities in the Rio Grande Watershed*
- 4.6 *Gender Considerations Incorporated into Project Activities*

##### 4.1 Development of the Rio Grande Watershed Management Committee

Working with the Committee and its Task Forces, the Project continued to support livelihood enhancement, governance, stewardship, compliance and enforcement. The objectives of this set of activities were to support the priority actions of the RGWMC while simultaneously diminishing R2RW's involvement in its management, operations, and decision-making.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>4.1</b>	<b>Development of the Rio Grande Watershed Management Committee</b>	
4.1.1	Develop RGW Strategic Plan	Not started
4.1.2	Management Activities of the RGWMC	<p><b><i>Land and Conservation Task Force</i></b></p> <p>Grants continue to be implemented at Coopers Hill, Rock Hall and Industry, and three new projects are being started in Moore Town, Chatsworth and Durham Gap as part of the local Anchor Project</p>



Work Plan Activity	Activity Description	Achievements During Reporting Period
		<p><b>Water and Sanitation Task Force</b></p> <p>Most physical work completed on household constructed wetlands at Millbank</p> <p>Work is underway at Cornwall Barracks and Comfort Castle water supply projects</p> <p>New constructed wetland initiated at Coopers Hill Primary School</p> <p>Final approval is imminent for a water supply project in Windsor.</p> <p>Work plan and budget developed for water quality monitoring</p> <p><b>Compliance and Enforcement Task Force</b></p> <p>Work done with Public Awareness Task Force to help people identify projects</p> <p><b>Public Awareness Task Force</b></p> <p>In Ginger House, a park was started where children can interact with nature, and a work day was held</p> <p>Community clean-ups held in Millbank and Bellevue</p> <p>Work done with PDC, 4-H Clubs, PEPA, and Port Antonio Theatre Group</p> <p>Enviro Kits distributed to key agencies and individuals</p> <p>RGWMC played lead role in celebrating World Wetland Day</p> <p>Training provided for the secretaries of each task force on meeting management and taking of minutes</p>
4.1.3	Develop Plan to Phase Out R2RW Support to RGWMC	<p>Developing and initiating R2RW's "exit strategy" has been successfully integrated into meetings and discussions of the RGWMC and its task forces.</p> <p>Developed detailed phase-out plan at workshop</p>

#### **4.1.1 Develop RGW Strategic Plan**

Not yet started.

#### **4.1.2 Management Activities of the RGWMC**

The RGWMC has made significant advances during the reporting period. The WMC is meeting regularly, and each of its four task forces have been developing and implementing their action plans under the umbrella of R2RW's incrementally diminishing support.

### Land and Conservation Task Force

Grants continue to be implemented at Coopers Hill, Rock Hall and Industry, and three new projects are being started in Moore Town, Chatsworth and Durham Gap. Many timber and fruit trees have been planted.

### Water and Sanitation Task Force

Grant-funded work is on-going on water supply systems in Cornwall Barracks and Comfort Castle. At Millbank, most of the physical work has been completed on household constructed wetlands, but grass has not yet been planted in the wetlands. Further meetings with participants were held to discuss issues preventing completion, and a work day was held in March. In Comfort Castle, materials were delivered, and a by-pass was constructed, but cooperation with NWC has decreased so the work has slowed.

New projects were also initiated. A sanitation project will provide a constructed wetland for the Coopers Hill Primary School. And final approval is imminent for a water supply project in Windsor.

Finally, a water quality monitoring program is being developed to evaluate water quality in the RGW and note problem areas. A work plan and budget have been developed. Chemical and bacteriological parameters will be monitored along with biological assessments. Dr. Hisslop from the UWI is assisting. Partner organizations include the Water Resources Authority (WRA), the NWC, CWIP, the Nature Conservancy (TNC), Public Health Department, and CASE. Sampling will be done throughout the RGW with nine sampling points from Millbank to Burlington including Port Antonio.

### Compliance and Enforcement Task Force

Work is being done with the Public Awareness Task Force to help people identify projects. Project proposals are being prepared. Liaison is also taking place with the ISCF to become familiar with each of the protected areas. Work is also taking place with the Ministry of Land and Environment to review agencies involved in compliance and enforcement in the Rio Grande Watershed and to establish a Quarry Monitoring Committee for the Rio Grande.

The Task Force would like to continue after the end of R2RW, and plans are underway for facilitation through NEPA.

### Public Awareness Task Force

The Task Force has been very active in the upper RGW under the new Chair, Linette Wilks, including work in Windsor, Ginger House, and Millbank. The Chair serves important roles both as a community leader and as an organizational link to JCDT's management of the Blue and John Crow Mountains National Park in the upper reaches of the RGW. In Ginger House, a park was started where children can interact with nature, and a work day was held in March. New plants were identified for the area, and a sketch and site plan will be prepared. A community clean-up was held in Millbank. A work day was held in Bellevue in March.

The PATF has also been working with the Portland PDC, the Jamaica 4-H Clubs, PEPA, and the Port Antonio Theatre Group to raise awareness widely in the lower RGW. Also, Enviro Kits were distributed to key agencies and individuals. The Action Boyz performed in the RGW in February 2004 in the communities of Windsor and St. Margaret's Bay.

In addition, the RGWMC played a lead role in celebrating World Wetland Day in the watershed in February 2004. Media coverage was excellent, and the event was highlighted by performances by the Action Boyz.

#### **4.1.3 Develop Plan to Phase Out R2RW Support to RGWMC**

On Thursday April 1, 2004 a one-day workshop was held with the RGWMC executive, key partner agencies, the SDC and Parish Council and community based organizations to develop a one year R2RW Phase-out Plan. The meeting was attended by 34 participants. The key action items are tabulated in Appendix 6. These findings shown have not yet been reviewed by the full WMC or by the Executive.

#### **4.2 Improved Land Management Practices in the Rio Grande Watershed – Anchor Project # 3**

The objectives of this set of activities are to:

- ✍ Support sustainable land management practices that will mitigate soil erosion and flooding and consequential damage to property and infrastructure;
- ✍ Improve ground cover and land permeability to improve water quality and quantity, protection of soil, maintenance and improvement of biodiversity, disaster mitigation, and creation of sustainable livelihood opportunities; and
- ✍ Increase the understanding of natural resource issues and conflicts in the RGW with a view to mitigation of potential hazards.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>4.2</b>	<b>Improved Land Management Practices in the Rio Grande Watershed – Anchor Project # 3</b>	
4.2.1	Secure Buy-in From Stakeholders on Anchor Project	Anchor Project supported by R2RW, the Task Forces of the RGWMC, RADA extension officers, NEPA, JAS, PCA, PDC, CDCs, and the SDC
4.2.2	Hire Project Manager for Anchor Project #3	Everton Parks was hired as the Project Manager
4.2.3	Approve/Implement Three Community Agroforestry Projects	New projects initiated for Chatsworth Farmers Group, Durham Gap JAS Branch, Moore Town JAS Branch
4.2.4	Implement RGW Tree Planting Initiative	A tree planting initiative has been initiated in collaboration with Forestry Department and RADA.
4.2.5	Introduce and Promote Environmentally Friendly Cropping Practices	Minimum tillage, alley cropping and contour farming promoted.
4.2.6	Establish Other Land Stabilization Structures	Introduce “Individual Farm Plans” to assist with positive environmental and economic impacts

Work Plan Activity	Activity Description	Achievements During Reporting Period
4.2.7	Conduct Special Studies	Interim Report on the progress of the Sediment Budget Studies of the Rio Grande Valley and St. Margaret's Bay has been submitted  Report submitted from external consultancy on Identifying the Wood-boring Insects Infesting the Honduras Mahogany and the Blue Mahoe Plantations in Jamaica and Recommendations of Remedial Actions to Mitigate the Infestation
4.2.8	Public Awareness to Support Anchor Project #3	Implementation linkages to the Portland PDC program for comprehensive public awareness in the lower RGW

#### **4.2.1 Secure Buy-in From Stakeholders on Anchor Project**

As reported in "Budgets and Implementation Plans for the Anchor Projects", a report prepared by R2RW during the reporting period, the schedule for implementing this Anchor Project was completed and placed in Gantt chart for the period January 2004 to June 2005. This report also presents specific indicators, which will be used to assess the success of the Project. The main activities are also reflected in the Report in a detailed budget. The primary responsibility for implementing the Anchor Projects lies with the Project Manager, however, he is supported by technical team members from R2RW, the Task Forces of the RGWMC, RADA extension officers and other support agencies including NEPA, Jamaica Agricultural Society (JAS), Pesticides Control Authority (PCA), Parish Development Committee (PDC), Community Development Committees (CDCS), and the Social Development Commission (SDC).

#### **4.2.2 Hire Project Manager for Anchor Project # 3**

After a competitive search, Everton Parkes was hired as the Project Manager for this Anchor Project. Mr. Parkes is a long-time Portland resident and comes to R2RW with a strong background and achievements in community-based agriculture and land husbandry. The Project works out of the local NEPA office and has succeeded in rapidly initiating new projects that build on earlier R2RW efforts in the area.

#### **4.2.3 Approve/Implement Three Community Agroforestry Projects**

The three on-going agroforestry projects at Industry, Rock Hall, and Coopers Hill will continue through a new planting season, and initial work for three new agroforestry projects in Moore Town, Chatsworth and Durham Gap is underway. Soil conservation measures in the projects including vegetative barriers, gully plugging, and integrated planting of crops. Crops include timber, fruit trees, and pineapple barriers. Plantains are being used as a nurse crop. Farmers donate all unskilled labour for each project.

The launch of the Anchor Project has benefited from the collective participation of Hugh Graham, Joseph Suah and Everton Parkes of R2RW who worked with each community on the finalization of proposal budgets and implementation plan. Each activity in the Anchor Project was discussed and recommended for approval by the Grant Selection Committee of the RGWMC.

#### **4.2.4 Implement RGW Tree Planting Initiative**

5,483 plants (1,405 cedar, 700 ackee, 3,223 Honduras Mahogany and 155 Blue Mahoe) were distributed in the Lower and Upper Rio Grande to 15 farmers representing 37 acres over the reporting period.

#### **4.2.5 Introduce and Promote Environmentally Friendly Cropping Practices – Cropping Systems, Coffee, Root Crops**

Practices promoted include minimum tillage on slopes, alley cropping and planting on the contour using pineapple barriers where appropriate. Coffee farmers were supplied with Honduras Mahogany for use as shade trees on coffee farms.

#### **4.2.6 Establish Other Land Stabilization Structures**

An innovative idea was introduced to this Anchor Project under the initiative of the new Manager. This is “Individual Farm Plans.” These Plans are a formalized way of working with farmers to plan the integration of timber and cash crop planting with land stabilization structures and approaches in advance of farm development before planting takes place. Land stabilization structures will include head trenches, check dams, gully plugs and vegetative barriers.

#### **4.2.7 Conduct Special Studies**

The purpose of this study was to identify the wood boring insects infesting the Honduras Mahogany (*Swietenia macrophylla*) and the Blue Mahoe (*Hibiscus elatus*) plantations in Jamaica and to recommend remedial actions to mitigate the infestation. Dr. Luko Hilje, Senior Entomologist at the Plant Protection Unit, Tropical Agricultural Research and Higher Education Center (CATIE), Turrialba, Costa Rica conducted the study. The results indicated that damage to both Honduras mahogany and blue mahoe plantations is very high (perhaps as high 75%), depending on their *age* and *location*, and is widespread all over Jamaica; borers are not the cause of the observed damage to Honduras mahogany and blue mahoe; and damage seems to be due to *one or more* interacting biotic (tree age) and abiotic (physical) factors, perhaps exacerbated by fungal pathogens which may cause tissue disintegration (rotting).

An Interim Report on the progress of the Sediment Budget Studies of the Rio Grande Valley and St. Margaret’s Bay has been submitted to R2RW. Accomplishments to-date include:

- ✍ River cross-sections – including surveying, sediment analysis, and Inman counts at 10 locations;
- ✍ Suspended sediment analysis for two reference locations;
- ✍ Erosion studies for all accessible roads in the RGW; and
- ✍ Partial completion of a landslide inventory – Comfort Castle, Moore Town, and Ginger House has been mapped.

#### **4.2.8 Public Awareness to Support Anchor Project # 3**

Significant progress was made working in cooperation with the Portland PDC to develop a comprehensive public awareness program for the lower RGW. The executive summary of their program proposal is presented in Appendix 7.

An additional significant partner on environmental public awareness in the RGW is JCDT under their R2RW grant-funded project in the upper reaches of the RGW. The executive summary of this project proposal is presented in Appendix 8. This project and its current status are tabulated below.

Location	Objectives	Partners	Status in Reporting Period
Upper Rio Grande Valley including Blue and John Crow Mountains National Park	To develop and implement a Community Education Program for Sustainable Watershed Management in ten communities of the Rio Grande Watershed adjacent to the Blue and John Crow Mountains National Park	Forestry Department, The Nature Conservancy, SDC, Park Rangers, Police, NEPA	Conservation and watershed management education, using a variety of techniques, initiated in all 10 communities  Completion date: 2 <sup>nd</sup> quarter 2005

### 4.3 Production and Marketing Activities in the Rio Grande Watershed

The objective of the following interventions is to increase the area of agricultural land brought under sustainable use through support to market-driven solutions to household challenges.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>4.3</b>	<b>Production and Marketing Activities in the Rio Grande Watershed</b>	
4.3.1	Improved Crop Varieties	Three projects on-going Four new projects started as part of land and conservation Anchor Project 5,483 trees planted involving 15 farmers and 37 acres of land Improved varieties of plantain and banana were multiplied by the Banana Board Research Department and field demonstration plots are being planned.
4.3.2	Livestock Improvement	A paper on the establishment of goat stud stations was prepared by Joseph Suah. The design suggested was successfully used by EJASP, and will be adopted by the anchor project.
4.3.3	Enterprise Development	New project started with Grand Valley Tours to link small businesses in the Rio Grande valley with markets

#### 4.3.1 Improved Crop Varieties

In order to engage farmers in land stewardship and linking them to viable markets, R2RW is working with them to establish demonstration plots of disease-resistant bananas and plantain, develop organic farming, and establish expanded agro-forestry.

Location	Objectives	Partners	Status in Reporting Period
<b>On-going Projects</b>			
Rock Hall	Through agroforestry and land husbandry, private lands will be reforested, soil erosion minimized, and economic livelihood will be enhanced.	Rock Hall Community-based Organization  RADA, FD, JAS	Project on-going. Timber and fruit trees planted, erosion barriers being constructed  27 farmers are participating  Completion date: 1 <sup>st</sup> quarter 2005
Coopers Hill	Through agroforestry, land husbandry private lands will be reforested, soil erosion will be minimized and economic livelihood of residents will be enhanced	Coopers Hill CDC  RADA, FD, JAS	Project on-going. Timber and fruit trees planted, erosion barriers being constructed  Fourteen people received timber trees and 2150 pineapple suckers were planted  Completion date: 1 <sup>st</sup> quarter 2005
Industry	Through agroforestry and land husbandry private lands will be reforested, soil erosion will be minimized and economic livelihood of residents will be enhanced	Industry Community-based Organization  RADA, FD, JAS	Project on-going. Timber and fruit trees planted, erosion barriers being constructed  26 farmers are participating  Completion date: 1 <sup>st</sup> quarter 2005
<b>New Projects During Reporting Period</b>			
Moore Town	<p>Promotion of sustainable land management practices and creation of sustainable livelihoods.</p> <p>Establishing fruit and timber trees with plantains to provide economic return to farmers while trees grow. Pineapple and sugarcane as vegetative barriers on contours. Other physical barriers include check dams and gully plugs.</p> <p>The farmers group will be assisted with a tool pool.</p> <p>Training will be through promotional field days and individual farm visits.</p>	<p>Moore Town Jamaica Agricultural Society</p> <p>RADA, FD, JAS</p>	<p>One component of Anchor Project #3</p> <p>Start date: March 2004</p> <p>Completion date: December 2004</p>

Location	Objectives	Partners	Status in Reporting Period
Durham Gap	<p>Establish and promote agro-forestry systems among farmers of Durham Gap and Dumphries to improve watershed health</p> <p>Expand improved land husbandry practices, and improved ground cover</p> <p>Establish fruit and timber trees with plantains to provide economic return to farmers while trees grow</p> <p>Pineapple and sugarcane used as vegetative barriers on contour. Other physical barriers include check dams and gully plugs</p> <p>Group to be assisted with tools and training through promotional field days and individual farm visits.</p>	<p>Durham Gap Jamaica Agricultural Society</p> <p>RADA, FD, JAS</p>	<p>One component of Anchor Project #3</p> <p>Project has benefited from the active participation of R2RW and Durham community finalizing budget and implementation plan</p> <p>Project discussed and recommended for approval by the Grant Selection Committee of the RGWMC</p> <p>Start date: March 2004</p> <p>Completion date: December 2004</p>
Chatsworth	<p>Establish and promote agro-forestry systems to improve watershed health</p> <p>Improved land husbandry practices, improved ground cover and training</p> <p>Establish fruit and timber trees with plantains for economic return to farmers while trees grow</p> <p>Use pineapple and sugarcane as vegetative barriers on contour. Other physical barriers include check dams and gully plugs</p> <p>Training through promotional field days and individual farm visits</p>	<p>Chatsworth Farmers Group</p> <p>RADA, FD, JAS</p>	<p>Component of Anchor Project #3</p> <p>Project benefited from the active participation of R2RW and the community to finalize budget and implementation plan</p> <p>Project discussed and recommended for approval by the Grant Selection Committee of the RGWMC</p> <p>Start date: March 2004</p> <p>Completion date: December 2004</p>

#### 4.3.2 Livestock Improvement

A paper entitled "Towards a Stud Goat System" was prepared by Joseph Suah. Under the anchor project, three goat stud stations are to be established in the RGW using the design outlined in this paper, which follows a model successfully implemented by the EU's Eastern Jamaica Agricultural Support Project (EJASP).



### 4.3.3 Enterprise Development

R2RW began working with Grand Valley Tours through grant funds to support and link several small, local enterprises with local, regional, and export markets.

Location	Objectives	Partners	Status in Reporting Period
<b>New Projects During Reporting Period</b>			
Rio Grande Valley	<p>Linking small businesses in the Rio Grande valley with markets</p> <p>Increase business skills and confidence in craft producers and hoteliers</p> <p>Increase income for craft producers, hoteliers and trail guides</p> <p>Increase ecotourism activity in and exposure of the Rio Grande Valley</p> <p>Training for craft producers, producing a catalogue of Valley products, distributing the catalogue</p> <p>Benefit 60 craft producers in the Valley presently producing crafts and transporting and marketing them in Ocho Rios</p> <p>Support watershed protection by strengthening the linkage between craft producers with the business community to generate income and promote sustainable utilization of natural resources</p>	<p>Grand Valley Tours</p> <p>60 craft producers</p> <p>Guest house operators</p> <p>Trail guides</p>	<p>Project discussed and recommended for approval by the Grant Selection Committee of the RGWMC</p> <p>The grant supports items 4.3.3 "Enterprise Development: Agro-processing, Eco-Tourism", and 7.1 "Grant fund management" of the R2RW Fourth Annual Work Plan.</p> <p>Start date: March 2004</p> <p>Completion date: September 2004</p>

### 4.4 Water and Sanitation Activities in the Rio Grande Watershed

The objectives of this set of activities were to improve watershed quality and livelihoods by improving access to drinking water and managing disposal of human waste in the watershed.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>4.4</b>	<b>Water and Sanitation Activities in the Rio Grande Watershed</b>	
4.4.1	Implement Water Harvesting and Sanitation Project	Bellevue grant request denied due to lack of adequate current water supply

Work Plan Activity	Activity Description	Achievements During Reporting Period
4.4.2	Implement Water Supply Projects	Windsor – see table below Comfort Castle – see table below Cornwall Barracks – see table below Coopers Hill – see table below
4.4.3	Solid Waste Interventions	Preliminary discussions were held with NSWMA and CWIP2 re solid waste Management Plan for the Parish and a collaborative plan will be developed.
4.4.4	Water Quality Monitoring	Program design drafted building on experience of CWIP and CWIP 2

#### **4.4.1 Implement Water Harvesting and Sanitation Project in Belleview**

The Belleview District Development Committee submitted a proposal to the RGWMC for a project to install and use a constructed wetland. The RGWMC met to review the proposal, and did not recommend it for approval. The reason for this was that an adequate water supply is needed to install a constructed wetland. The RGWMC considered that the Belleview community is currently in discussions with the Jamaica Social Investment Fund for support for the construction of a water supply scheme in the community and that the approval of a constructed wetland would have to wait until the water supply is completed. In addition, the proposal lacked an implementation plan and a budget, so it was not possible to determine its specific feasibility.

#### **4.4.2 Implement Water and Sanitation Supply Projects**

Location	Objectives	Partners	Status in Reporting Period
<b>On-going projects</b>			
Millbank	Improve watershed conditions by improving wastewater management and establishing a demonstration of the use of water harvesting and constructed wetlands at 12 individual homes	Millbank Past Students' Association	Work is completed at 9 of the 12 planned households. It was decided that the remaining 3 systems will be installed in other communities by the W & S task force, due to the delay of installation in Mill bank. This approach will improve the overall demonstration effect of the technology.  Overall project is 90% complete Completion date: End of May 2004
Moore Town/ Seaman's Valley/ Windsor	Improve livelihoods by increasing the volume of potable water coming to the community from a spring source	Moore Town Maroon Council	Completion date: Completed

Location	Objectives	Partners	Status in Reporting Period
Comfort Castle/ Ginger House/ Millbank	Improve livelihoods by increasing the volume of potable water available at schools, individual houses, and the general community	Comfort Castle CDC	Project begun and approvals obtained. Entombment 90% complete and laying of pipe from the entombment to the road has commenced.  Completion date: third quarter 2004
<b>On-going projects</b>			
Cornwall Barracks	Improve livelihoods by increasing the volume of potable water available to the general community	Cornwall Barracks CDC	Project begun and approvals obtained Entombment 50% complete, materials are being transported to entombment site, and pipe has been procured.  Completion date: third quarter 2004
<b>New Projects During Reporting Period</b>			
Windsor	Improve livelihoods by increasing the volume of potable water available to the general community.  Water source is the spring previously upgraded under R2RW grant to the Moore Town Maroon Council described above.	Windsor Community Development Committee	NWC has generated a preliminary estimate to upgrade the distribution system.  The community was not demonstrating sufficient commitment or ownership of the project to approve grant.  The W & S task force is working with the community to develop local ownership and seek alternate sources of funding for pipe.
Coopers Hill	Build a flush toilet system using water harvesting and a constructed wetland disposal system  Establish focal point for public awareness activities in RGW	Coopers Hill Primary School Parent Teachers Association	Component of Anchor Project #3 RGWMC identified area as environmental hot spot  Project discussed and recommended for approval by the Grant Selection Committee of the RGWMC and the Water and Sanitation Task Force. Final designs are being completed.  Start date: March 2004  Completion date: September 2004

#### **4.4.3 Solid Waste Interventions**

Preliminary discussions have been had with NSWMA and C-WIP2, with respect to the Solid Waste Management Plan for the Parish. R2RW will work in collaboration with C-WIP2, NSWMA, and the Parish Council to help develop the Solid Waste Management Plan, our area of focus will be the middle and upper valley

#### **4.4.4 Water Quality Monitoring**

In preparation for the development of a water quality monitoring program focused on the RGW, meetings were held with The Nature Conservancy (TNC) that has a large presence in Jamaica and a management role for the Blue and John Crow Mountain National Park in the upper reaches of the RGW. Following discussions, a joint proposal was drafted based on the achievements of

CWIP and CWIP 2 in community-based water quality monitoring, the Blue Flag program, and using data to enable better community decision-making.

#### 4.5 Other Public Awareness Activities in the Rio Grande Watershed

The objectives of this set of activities were to support improved practices among the rural poor, which would have a positive impact on people’s sustainable use of natural resources.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>4.5</b>	<b>Other Public Awareness Activities in the Rio Grande Watershed</b>	
4.5.1	Share Lessons Learned in GRW with Participants in RGW	A public awareness stakeholders’ forum was planned for the RGW which will be attended by relevant stakeholders from the GRW  GRWMC and RGWMC to jointly participate in project with Pesticide Control Authority (PCA) on “Reducing Child Poisoning in Great River and Rio Grande Watersheds”
4.5.2	Work with CWIP 2 and EAST Projects to Promote Portland as a Green Destination	This work is underway and the PATF is working with partner agencies to prepare communities to participate in Green Destination Management Group.
4.5.3	Participate in Fairs, Expos and Community Environmental Fora	Project participated actively in World Water Day events and the CASE Career Fair  New work with PEPA and Port Antonio Theatre Group
4.5.4	Plan and Implement Community Education Program for the Lower Rio Grande Valley	Project launched in partnership with the Portland PDC to develop and implement a Community Education and Public Awareness Program in the lower valley  R2RW covering only 65% of total program costs, remaining from resources mobilized by the PDC
4.5.5	Provide Environmental “Kits” to Youth and Community Organizations	Kits have been prepared and widely distributed  Linkages established to Jamaica 4-H Clubs for an “Environmental Challenge Program” including ‘Trash to Cash’, organic farming, and a national tree planting drive.

##### 4.5.1 Share Lessons Learned in GRW with Participants in RGW

A public awareness stakeholders’ forum was planned for the RGW, which will be attended by relevant stakeholders from the GRW. The forum will take place in the early part of the next reporting period.

In addition, an activity unanticipated in the FAWP was identified, developed, and initiated to share actions between the GRW and the RGW. Both WMCs will benefit from a R2RW grant to the Pesticides Control Authority (PCA) for “Reducing Child Poisoning in Great River and Rio Grande Watersheds”. The activity is aimed at reducing poisoning among children aged 1-5 in the GRW

and RGW through increased public awareness. The Project will be conducted between March 2004 and May 2005. It will involve the following:

- ✍ Increased awareness among parents and caregivers. This will be done by preparing and printing a comic book and posters for 12 health centers and making presentations at pre and post natal clinics
- ✍ Sensitizing children to the dangers of pesticides and household chemicals. This will be done through distribution of leaflets, bookmarks and posters of pesticides and household chemicals for use in schools, health centers, farm households and 4-H clubs
- ✍ Measurement of project effects. This will be done through collecting and analyzing poison data in the area quarterly.

#### **4.5.2 Work with CWIP2 and EAST Projects to Promote Portland as a Green Destination**

R2RW participated in meetings of the Green Destination Management Group organized by the EAST Project. Discussions are presently underway to adopt the Green Village program to the Rio Grande as a community competition on the “greenest” destination.

#### **4.5.3 Participate in Fairs, Expos and Community Environmental Fora**

##### World Wetlands Day

Commemoration of Wetlands Day events was held at the Port Antonio Marina RGW on February 2, 2004. The event was well attended by partners, schools and communities. In addition to formal presentation on Wetlands, the two drama resource groups (Action Boyz and Port Antonio Theatre Group) performed in the communities of Windsor and St. Margaret’s Bay.

##### CASE Career Fair

R2RW will mount a display at CASE Career Fair on April 2, 2004. Emphasis is on improving awareness of Jamaica’s environmental laws and sustainable agricultural practices. Candidates for internship in the Summer 2004 will be interviewed at the fair.

##### Schools Environment Program (SEP) and Portland Environment Protectors (PEP) club program

The Portland Environmental Protection Association (PEPA) has been a local leader in community environmental programs for many years. During the reporting period, R2RW agreed to support their Rio Grande Valley School’s Environmental Education Program. This Program enrolls and supervises the schools from the Lower Rio Grande Watershed in the highly successful Schools Environment Program (SEP) and Portland Environment Protectors (PEP) club program. In this way, the Program increases the level of environmental awareness among staff and students in the watershed and encourages students to implement projects to mitigate or eliminate environmental degradation in their schools and communities. 14 schools in the lower Rio Grande Valley are specifically targeted in the proposal.

The specific objectives of the effort with PEPA are to:

- ✍ Increase the level of environmental awareness among staff and students in the RGW by expanding the number of schools in the SEP and PEP club programs;
- ✍ Promote the integration of effective and sustainable environmental practices into all aspects of school life in the RGW;

- ✍ Increase the level of environmental awareness among students and engender stewardship of watershed and other environmental resources;
- ✍ Increase the appreciation of Portland's biodiversity, endemic species, and other natural resources;
- ✍ Increase knowledge of the consequences of individual and community actions on the environment; and
- ✍ Strengthen PEPA's capacity to adequately supervise schools, report to doors, raise funds, write proposal, and organizational management.

Community drama with Port Antonio Theatre Group (PATG) an additional entry point to community awareness-building emerged in response to performances of the Action Boyz in Portland. As community drama is clearly emerging as an important means of communication, R2RW agreed to support the increased involvement of the Port Antonio Theatre Group (PATG) in public awareness. Their Project will use drama performances, including interactive drama training, as a tool for building environmental awareness in the RGW. The PATG is a well established and recognized theatre group, who has won over fifty National Trophies and has also produced a well received musical production for the Forestry Department titled "Magic Trees" which is available on video.

The PATG will carry out drama presentations and interactive training workshops in 5 clusters of communities in the upper Rio Grande valley, and 10 clusters in the lower watershed. The material designed will be specific or adaptable to the priority environmental challenges in each cluster community group. Interactive methodologies will be used to address passivity, overcome psychological barriers to active watershed management, mainstream the marginal role played by some male youth in structured community activities, and provide information on hazards and threats which continuously face RGW communities. At least two presentations/workshops will be held monthly in the first six months of this sub-project.

This education activity will continue for 15 months and complement other public awareness activities in the RGW. These are expected to include Community Education in the Upper Rio Grande implemented by JCDT, Community Education in the Lower Rio Grande implemented by the Portland PDC, the Schools for the Environment Program implemented by PEPA, and the Environment Challenge program implemented by the Jamaica 4H.

#### ***4.5.4 Plan and Implement Community Education Program for the Lower Rio Grande Valley***

Grant funding was approved for a comprehensive community education program for the lower Rio Grande Valley. The Project is aimed at addressing environmental degradation within the lower Rio Grande Watershed that has resulted from land degradation practices (slash and burn agriculture and deforestation), water pollution (dumping of solid waste in rivers and streams and contamination from agricultural chemical residue run-off). The goal of the project is to promote environmental sustainability by developing and implementing a Community Education and Public Awareness Program geared at the promotion and adoption of practices and activities that will engender community stewardship of the environment. The project will address five programmatic themes:

- ✍ Environmental stewardship;
- ✍ Institutional capacity-building of key partners and communities;
- ✍ Community-based environmental competition;
- ✍ Funding for community-based environmental activities; and

- ✍ Building strong neighborhoods through dialogue utilizing the “Study Circle Concept”.

This project was discussed and recommended for approval by the Executive Committee of the RGWMC in January 2004.

Specific achievements in preparation for implementation include the following:

- ✍ Planned schedule of activities and cost centers;
- ✍ Logical framework analysis;
- ✍ Budget (including specific local support); and
- ✍ Detailed proposal.

The table of contents and the executive summary of the Program Plan is presented in Appendix 7.

#### **4.5.5 Provide Environmental “Kits” to Youth and Community Organizations**

The first sets of “Kits” were finalized, and a direct R2RW link to national youth programs was established with the Jamaica 4-H Clubs for an “Environmental Challenge Program”. More detailed information is presented in section 3.6.8. A second set of kits will be reproduced in the 2<sup>nd</sup> half of the year 2004

#### **4.6 Gender Considerations Incorporated Into Project Activities**

R2RW is working to increase both gender equality and equity in all Project Activities. The activities described in the following section are intended to advance the Project and its partners in this direction.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>4.6</b>	<b>Gender Considerations Incorporated Into Project Activities</b>	
4.6.1	Evaluating Gender in the R2RW and Assessing Gender Considerations	Methodology included participant observations of social as well as gender equity factors in watershed management.
4.6.2	Targeting and Tailoring Activities to Meet Gender Sensitive Needs	Analysis done for the annual report indicates that more needs to be done in RGW to target spouses of male farmers.
4.6.3	Provide Annual Gender Report of Project Activities	Draft gender report in circulation for comments

##### **4.6.1 Evaluating Gender in the R2RW and Assessing Gender Considerations**

Gender considerations form a part of the social equity assessment conducted through participant observation. Task force meetings, training, workshop and leadership in Watershed Management were the main areas focused on.

##### **4.6.2 Targeting and Tailoring Activities to Meet Gender Sensitive Needs**

In the RGW, more need to be done to involve spouses of male farmers in land conservation field days and agro forestry activities.

#### **4.6.3 Provide Annual Gender Report of Project Activities**

As described earlier, a draft Annual Gender Report is being reviewed by R2RW staff. A second draft incorporating comments from Project staff will be more widely circulated before finalization.



## 5. Component 2 - Incentives for and Obstacles to Enforcement of Targeted Existing Environmental Regulations Identified and Solutions Supported

### Introduction

Considerable progress continues to be made by R2RW under this component based upon a refined and focused understanding of the regulatory and governance environment in the country. The national situation impacting on R2RW implementation of Component 2 activities includes:

- ✍ Multiple environmental laws and authorities;
- ✍ Fragmented services, with numerous persons involved in enforcement;
- ✍ Unavailability of existing laws to professionals and the population;
- ✍ General impression that compliance and enforcement is ineffective;
- ✍ Most enforcement actions are under the Litter Act (now the NSWMA) Act and the Mines and Quarries Act;
- ✍ Significant regulatory authority rests with Parish Councils – but some 39 centralized state line agencies tend to disregard them; and
- ✍ Disproportionate blame is placed on communities for breaches of environmental regulations.

Based on this understanding obtained through extensive study and discussions, R2RW focused activities in the three broad areas shown below:

5.1	<i>Compliance and Enforcement – Nationally</i>
5.2	<i>Compliance and Enforcement - Great River Watershed</i>
5.3	<i>Compliance and Enforcement - Portland, with Emphasis on the Rio Grande Watershed</i>

### 5.1 Compliance and Enforcement - Nationally

The objectives of this set of activities were to increase awareness of environmental laws and regulations with the hope of enhancing compliance with and enforcement of those laws.

Work Plan Activity	Activity Description	Achievements During Reporting Period
5.1	<b>Compliance and Enforcement – Nationally</b>	
5.1.1	Sensitization of Magistrates, Other Court Personnel & Senior Agency Personnel	A CD of the proceeding of previous Magistrates Symposia including the relevant laws, and presentations at the symposia was produced and distributed.  Two more symposia are planned for April and May 2004.

Work Plan Activity	Activity Description	Achievements During Reporting Period
5.1.2	Training of Enforcement Officers	R2RW worked in partnership with MIND and ENACT to develop four training courses on compliance and enforcement of environmental and planning legislation. The target group is 1,570 GOJ enforcement officers: 100 Enforcement Managers, 1189 Enforcement Officers, 281 Game wardens, and other community leaders.  For each course, MIND will prepare a handbook of resource materials, guidelines for facilitators, and a participant workbook. R2RW is in the final stages of partnering the Legal Services Division of NEPA to undertake training in all four courses through MIND. Select courses will also be implemented in the watersheds R2RW is working in.
5.1.3	Identify Baseline on Environmental Cases Convicted in Court	Initiated action toward developing a "Compendium of Environmental Cases"
5.1.4	Develop & Distribute Pocket Guide to Environmental Laws in Jamaica	Distribution of the "Pocket Guide on Environmental Regulations in Jamaica" developed during Project Year 4 continued.  1,000 copies were distributed and a second printing of 1,000 copies was completed. Based on feedback, R2RW will be supporting the development of a second edition of the Pocket - guide.

### **5.1.1 Sensitization of Magistrates, Other Court Personnel & Senior Agencies Personnel**

Based on the KAP Study finding that knowledge of environmental regulations was uniformly low across the Jamaican population – from magistrates to ministries to mothers – multiple initiatives were undertaken by R2RW. During the reporting period, two symposia were planned for Clerks of Courts, Deputy Clerks of Courts, and Compliance and Enforcement Managers. These were a continuation of the popular and successful symposia held during Project Year 3.

### **5.1.2 Training of Enforcement Officers**

Building the capacity of official enforcement officers requires an intense, focused, and long-term approach. R2RW has agreed to work in partnership with MIND and ENACT to meet this challenge by developing four training courses on compliance and enforcement of environmental and planning legislation. These courses build on the recognition across GOJ agencies of the need for a formal training program in compliance and enforcement on and the work of a NEPA-led multi-agency participatory process to develop the training courses. The potential target groups for these training courses are the 1,570 enforcement officers presently in the Government service: 100 Enforcement Managers, 1189 Enforcement Officers, and 281 Game wardens. In addition, there is another audience estimated at 200 community leaders who would be interested in and would benefit from a tailored course for community leaders.

An earlier Situation Analysis revealed that some material for training in enforcement exists, but it is not adequate. In addition, currently available courses in environment and sustainable development are not tailored specifically to this target audience. An opportunity for

institutionalization exists at MIND and other tertiary institutions where trained and experienced trainers and facilitators are available. It was agreed that the following courses will be developed:

- ✍ EC01 - Introduction to Resource Systems, Environmental Legislation and Planning Legislation;
- ✍ EC02 – Techniques and Procedures for Enforcement and Compliance of Environmental and Planning Legislation;
- ✍ EC03 – Personal Competencies for Enforcement and Compliance; and
- ✍ EC04 - Enforcement and Compliance of Environmental and Planning Legislation for Community Leaders.

For each course, MIND will be required to deliver a handbook of resource materials, guidelines for facilitators, and a participant workbook. The development of these courses will be jointly financed by R2RW and ENACT. ENACT will be responsible for the delivery of an initial EC01 Course, and R2RW will be responsible for EC02, ECO3, ECO4, and the continuation of EC01.

### ***5.1.3 Identify Baseline on Environmental Cases Convicted in Court***

The NEPA Legal Branch agreed with R2RW to develop a “Compendium of Environmental Cases”, and the first meeting of the planners was held. NEPA Legal will be using the services of Interns and working with a multi-agency group to identify cases for inclusion in the compendium.

### ***5.1.4 Develop & Distribute Pocket Guide to Environmental Laws in Jamaica***

1000 copies of the Pocket Guide to Environmental and Planning Laws of Jamaica were distributed during Project Year 3. In response to the remaining high demand, an additional 1000 copies were prepared in a second printing. Full distribution of both the first and second printing are tabulated in Appendix 9.

Based on feedback to date, R2RW will be supporting NEPA Legal in the preparation and distribution of a second edition of the Pocket-Guide

## **5.2 Compliance and Enforcement - Great River Watershed**

Year 4 activities continue to focus on the Compliance and Enforcement Task Force of the GRWMC. R2RW works with the Compliance and Regional Services (CRS) Division of NEPA and the Task Force to reach consensus on the continuity of the partnership after R2RW is finished. In the watershed, the Task Force has identified solid waste as a key problem, which they can address. They began to identify priority communities and “hotspots” and have directed GOJ and R2RW resources toward their cleaning. Cambridge was considered the major hotspot, and the work plan reflects this consideration. The cleaning and greening of Cambridge was developed as an Anchor Project, and significant achievements have already been made.

It is hoped that these activities will encourage greater involvement of communities in enforcement activities and indicators will be developed to measure this success.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>5.2</b>	<b>Compliance and Enforcement - Great River Watershed</b>	
5.2.1	Partnership and Coordination	Chair selected and planning initiated. The sub-Committee reviewed the recommendations from the Leon Hopkins study. Parish meetings are currently being organized through the C&E Division of NEPA.
5.2.2	Watershed-level Environmental Training and Sensitization Program	This activity was awaiting the courses from MIND
5.2.3	Cleaning and Greening of Communities and “Hotspots”	Community clean-ups were conducted at Ramble Pond, Cedar Grove, Belmont, Chester Castle, Seven Rivers, Cambridge and York.
5.2.4	Fostering Community Enforcement	New interest from community members to support enforcement at the community level

**5.2.1 Partnership and Coordination**

Charles McKenzie of NEPA’s CRS Division was selected to chair this activity, and development of detailed tasks is underway. Charles will support Andrea Steele of the same division who recently returned from maternity leave, and was asked by the task force to coordinate a review of the Leon Hopkins’s Report. Leon Hopkins had earlier undertaken an inventory of agencies involved in C&E activities in the Great River Watershed. This Sub-Committee has completed its review of the study

**5.2.2 Watershed-level Environmental Training and Sensitization Program**

No action was taken pending development of training courses by MIND.

**5.2.3 Cleaning and Greening of Communities and “Hotspots”**

Community clean-ups were conducted at Ramble Pond, Cedar Grove, Belmont, Chester Castle, Seven Rivers, Cambridge and York. Plans were made for clean-ups in Dundee and Seaford Town. The Community Clean-ups also provided training in composting, and constructed garbage receptacles. These clean-ups were done in partnership with NSWMA, and average over 35 participants per activity.

Community Members are now participating in clean-ups other than their own.

**5.2.4 Fostering Community Enforcement**

The project started with an “Enforcement Strategy” but had to review this, as the KAP undertaken by the project identified the need for a “more awareness” strategy. The public awareness campaign is showing success, and pressures are coming from the community for state agencies to be more involved in enforcement, and for recognition of community leaders having a role in enforcement activities.

### 5.3 Compliance and Enforcement - Portland with Emphasis on the Rio Grande Watershed

This section is focused on Portland, “with emphasis on the Rio Grande Watershed” rather than just on the RGW. R2RW is working closely with the Portland PDC, a strong interagency group developed with support from ENACT, to encourage greater compliance and enforcement of environmental laws at the watershed and community levels.

Work Plan Activity	Activity Description	Achievements During Reporting Period
5.3	<b>Compliance and Enforcement - Portland with Emphasis on the Rio Grande Watershed</b>	
5.3.1	Partnership & Coordination	A workshop to share information on roles and responsibilities of agencies involved in public awareness and compliance/enforcement in Portland took place and identified a number of issues, community members were “bumping up against”. The issues identified, as well as the Action Plan to work on the prioritized issues are included as Appendix 10.
5.3.2	Watershed-level environmental training and sensitization program	No progress. This activity was awaiting the courses from MIND
5.3.3	Quarry Monitoring Committee	Assessment of agencies involved in quarry monitoring completed. The Mines and Quarry Division of the MLE has named a Quarry Monitoring Committee for the Rio Grande. This Committee will become active in the next quarter.
5.3.4	Disaster mitigation	No progress

#### 5.3.1 Partnership & Coordination

A workshop to share information on roles and responsibilities of agencies involved in public awareness and compliance/enforcement in Portland took place. Community members identified several issues that they were “bouncing-up” against that were outside of their capacity to find solutions for. An Action Plan was developed to assist the stakeholders to advance this agenda.

#### 5.3.2 Watershed-level Environmental Training and Sensitization Program

No progress was made pending development of training courses by MIND.

#### 5.3.3 Quarry Monitoring Committee

As assessment of agencies involved in quarry monitoring was completed with the draft product to be circulated. The Mines and Quarry Division of the MLE has named a Quarry Monitoring Committee for the Rio Grande. This Committee will become active in the next quarter.

#### 5.3.4 Disaster Mitigation

No progress made during the reporting period. Discussions will be held with the Portland Parish Council to seek their buy-in from a stakeholders’ recommendation to host a Workshop on Disaster Mitigation during the 2004 Hurricane Season (June – November 2004)

### ***Other Activities***

The Community Logistics Coordinator's role in the Community Clean-ups was extended to the RGW. Clean-ups were undertaken in ginger House, Bellevue, and Windsor. Two are pending in other communities. Support for this activity has come from NSWMA, and the SDC. Composting has taken place in Ginger House and Windsor, with Bellevue to come later. Over 50 persons participate in each clean up work day.

## 6. Component 3 - Capacity of Jamaican Government Agencies, International Donors, Private Sector and Civil Society Organizations to Implement Effective Watershed Management Programs Enhanced

### Introduction

The central government in Jamaica has a key role to play in watershed management – through multiple line agencies and the National Integrated Watershed Management Council (NIWMC). And, certain responsibilities - coordination, oversight, and regulatory - must remain with GOJ agencies. The Sustainable Watersheds Branch (SWB) of NEPA, in particular, is expected to lead policy, information management, and monitoring of watersheds. However, many aspects of watershed management are best led by local government, NGOs, CBOs, or private sector entities. The ability of all partners to implement watershed management programs will be enhanced under this Component through support for better cooperation, direct strengthening of capacity, and facilitated coordination of activities.

Achievements under Component 3 during the reporting period are described in the following sections.

6.1	<i>Strengthening of the Watershed Management Capacity of NEPA</i>
6.2	<i>Training for Skills Development</i>
6.3	<i>Local Watershed Management Committee (LWMC) Development</i>
6.4	<i>Policy and Legislation</i>
6.5	<i>NIWMC Activities</i>
6.6	<i>Improve Sanitation Management Practices – Anchor Project #4</i>
6.7	<i>Transfer Approaches, Methodologies and Lessons to Key Partners and Stakeholders</i>
6.8	<i>Public Awareness</i>

### 6.1 Strengthening of the Watershed Management Capacity of NEPA

The objectives of this set of activities were to build the capacity of the SWB to implement programs in watershed management.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>6.1</b>	<b>Strengthening of the Watershed Management Capacity of NEPA</b>	
6.1.1	Team Building in the Sustainable Watersheds Branch	Retreat held in November 2003 Development of Branch Charter
6.1.2	Finalize Equipment Specifications and Procurement	Not completed
6.1.3	Update Sustainable Watersheds Branch Watershed Database	Not completed

Regular meetings were held between R2RW and the SWB to ensure information exchange, partnership, and capacity building. The agenda for selected meetings are shown in Appendix 11.

### **6.1.1 Team Building in the Sustainable Watersheds Branch**

R2RW intends to facilitate two team-building retreats with SWB during Project Year 4. In November 2003, R2RW and the SWB conducted the first of these staff retreats. The objectives of the two-day retreat were to assist the SWB in:

1. Reviewing the achievements and current status of the SWB;
2. Examining how SWB staff accept and understand their corporate role in NEPA; and
3. Confirming the staff's long-term vision, understanding, and commitment to the SWB, NEPA, and watershed management in a Branch Charter.

The agenda and methodology of this retreat as well as a template for the Branch Charter can be found in Appendix 12. The Charter developed at the Retreat is currently prominently displayed in the SWB offices.

### **6.1.2 Finalize Equipment Specifications and Procurement**

This activity was not completed due to lack of consensus on the specifications of Global Positioning System equipment.

### **6.1.3 Update Sustainable Watersheds Branch Watershed Database**

SWB/NEPA is responsible for maintaining a database of Watershed Projects in Jamaica as part of NEPA's contribution to the Programs and Projects Working Group of the NIWMC. The Coordinator of the Database has departed on a one-year Study Leave, and hence progress on this item has been put on hold.

## **6.2 Training for Skills Development**

The objectives of this set of activities are to provide to SWB and other government officials with a set of skills required to facilitate watershed improvement in cooperation with partners.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>6.2</b>	<b>Training for Skills Development</b>	
6.2.1	Implement Course in Meeting Management	Two training courses held. 14 individuals were trained on January 13 in Port Antonio, Portland and 41 were trained in Montego Bay, St. James on January 29, 2004
6.2.2	Implement Course in Writing Skills	One workshop held in the GRW with 36 persons trained. A second is planned for early in the next reporting period.
6.2.3	Implement Course in Rapid Appraisal Techniques for Watershed Status	Not yet planned
6.2.4	Implement Course in Facilitation Skills	Two 2-day courses held in March 2004 in Basic and Advanced Facilitation techniques and two Community Action Planning Workshops held.



Work Plan Activity	Activity Description	Achievements During Reporting Period
6.2.5	Implement Course in Fundraising	One workshop held in the GRW with 34 persons trained. A second is planned for early in the next reporting period.

### **6.2.1 Implement Course in Meeting Management**

Two one-day training workshops were held on **Meeting Management, Developing Agendas and Minutes Taking**. The workshop Tuesday January 13, 2004 at the NEPA Portland office, Port Antonio Portland was attended by 14 participants and the workshop on Thursday January 29, 2004 was attended by 41 participants. The trainer was Ms. Claire Spence, the Deputy Director of the Office of General Development (USAID) and a Management Consultant with over 15 years of experience in management and development training.

The workshop targeted the officers of the RGWMC, its Task Forces and key R2RW partner agencies. The workshop sought to communicate important methods and skills necessary to conduct successful meetings and record the proceedings in a standard professional manner. The workshop therefore aimed to both promote the efficiency of RGWMC activities and enhance the capacity of its collaborating stakeholder organizations operating in the watershed.

### **6.2.2 Implement Course in Writing Skills**

A One-day workshop on Proposal Writing was held in Montego Bay that was attended by 36 participants from NEPA, other government agencies, community based organizations, and NGOs. The trainers for the workshop were Mark Nolan (R2RW) and Marline Lewis (EFJ). The course covered proposals as an extension of organization objectives, and a session on the “Nuts and Bolts of Proposal Components”. Participants were also taken through a practice session where proposals were outlined and evaluated. The course received an enthusiastic response from participants.

### **6.2.3 Implement Course in Rapid Appraisal Techniques for Watershed Status**

The design and implementation of this course will take place in the next period.

### **6.2.4 Implement Course in Facilitation Skills**

R2RW and CWIP2 jointly sponsored a series of workshops in March 2004 as follows:

1. A Seminar on Basic Group Facilitation Techniques (Level – 1) in Advanced Participation Methods (APM)
2. An Advanced Skill Building Seminar in Group Facilitation Methods and Techniques (Level – 2)
3. A Community Action Planning Workshop for Boundbrook in Portland
4. A Community Action Planning Workshop for Cambridge, St. James

The courses were conducted under the leadership of Dr. Gary Forbes of ARD. Manuals were developed for Basic and Advanced Facilitation Methods courses as well as for the One-Day Community Action Planning Workshops. Participants included staff from NEPA, Social Development Commission (SDC), Forestry Department, RADA, and both the R2RW and CWIP2

Projects. The courses were well received, and a follow-up request has been sent by the SDC to expand this training for officers in Western Jamaica.

### **6.2.5 Implement Course in Fundraising**

A One-day workshop on Fundraising Skills was held in Montego Bay that was attended by 34 participants from NEPA, other government agencies, community based organizations, and NGOs. The trainers for the workshop were Effie McDonald (Canada Green Fund), Trevor Spence (R2RW) and Yolanda Hill and Karyll Johnston (USAID). Case studies of successful local fundraising efforts were made by Jill Williams of the Montego Bay Marine Park on the annual Marine Park Ball, and by Calvin Brown of the Jamaica 4-H on the annual “Nyamins and Jammins” fundraising event. Information on local and international donors was presented along with criteria and application forms for common donors. A second workshop is scheduled to be held in the early part of the next reporting period.

### **6.3 Local Watershed Management Committee (LWMC) Development**

The objectives of this set of activities were to contribute to the national dialogue regarding the role, functions, and legal status of WMCs in Jamaica.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>6.3</b>	<b>Local Watershed Management Committee (LWMC) Development</b>	
6.3.1	Continue Skill-building Training Courses	Leadership Training Course – November 5, 2003
6.3.2	Study to Develop Linkage Between LWMCs and PDCs	Consultant team mobilized to review processes of local planning and local governance being undertaken within Jamaica, particularly how these processes interface with the establishment of Local Watershed Management and/or Local Forestry Management Committees. Task design coordinated with CWIP2, SDC, and NEPA.
6.3.3	Continued Networking of LWMCs	Networking of the GRWMC and RGWMC done through sharing of information and cross visits to program events.
6.3.4	Exchange Visits Between and Within Watersheds	GRWMC AGM – October 22, 2003 World Wetlands Day – February 2, 2004 Joint Portland Compliance & Enforcement and Public Awareness Task Force Workshop – April 6, 2004
6.3.5	Ensure the WPA Revision Clarifies Role of LWMCs	Workshop held and report completed
6.3.6	Articulate Incentives for LWMCs	Discussion of CANARI Incentives Study commence

#### **6.3.1 Continue Skill-building Training Courses**

Officers and members of both the RGWMC and the GRWMC participated in the four training initiatives described in Section 6.2 above. Five management level staff members of NEPA were

sponsored to attend a one-day Leadership Training Course on November 5, 2003 at the Jamaica Conference Centre. Training in Community Building Methodology/Auditing is planned for early in the next reporting period.

### **6.3.2 Study to Develop Linkage Between LWMCs and PDC**

In November 2003, a three person consultant team was mobilized by R2RW to review the different processes of local planning and local governance being undertaken within Jamaica. Specifically, this team was asked to describe how these processes interface with the establishment of Local Watershed Management and/or Local Forestry Management Committees. The design of this task was coordinated with CWIP 2, and it benefited from input from the SDC and NEPA. This review will highlight the different approaches undertaken at the local level, and recommend how LWMCs should interface with other on-going local governance mechanisms and processes. Specifically, the task will help develop the link between LWMCs and other mechanisms for local government reform including local sustainable development planning and Parish Development Committees. The parish of Portland will be used as a case-study example as the working relationship between the Portland PDC and the RGWMC is particularly close and cooperative. A draft report is being prepared, and completion of the work is expected in the early part of the next quarter.

### **6.3.3 Continued Networking of LWMCs**

The networking of participants from the GRWMC and RGWMC was done through sharing of information and cross visits to program events such as the Green Village Awards Ceremony in the GRW and a joint Compliance and Public Awareness Task Force workshop in the RGW.

A major networking conference of participants from LWMCs from across Jamaica is planned for the next reporting period.

### **6.3.4 Exchange Visits Between and Within Watersheds**

Three exchange visits were held during the reporting period as follows:

**GRWMC AGM** – October 22, 2003. Ten members of the RGWMC executive were invited as observers to the annual general meeting of the GRWMC. After the meeting the representatives from the RGW were given a tour of selected field projects in the area led by the chairman of the GRWMC, Don Streete.

**World Wetlands Day – February 2, 2004.** Seven members of the Action Boyz group participated in World Wetlands Day activities in Port Antonio on February 2<sup>nd</sup>. The group also spent the two additional days visiting and performing in the Windsor and St. Margaret's Bay in the watershed. Some 16 communities were exposed to the performances of the Action Boyz during their three day visit.

**Joint Portland Compliance & Enforcement and Public Awareness Task Force Workshop – April 6, 2004.** This workshop was held to support issues related to state agency support of community efforts to improve compliance and public awareness activities surrounding sustainable watershed management issues. Two members of the GRWMC were invited to participate in this activity.

### **6.3.5 Ensure the WPA Revision Clarifies Role of LWMCs**

A workshop was held in October 2003 with 27 representatives of government agencies, private sector, civil society and international donors and a report completed regarding required revisions to the Watershed Protection Act (WPA). The workshop report, "**Preliminary Review of the Watershed Protection Act**" supported by the Legal Services Division of NEPA and the R2RW

Project represents the start of a process to update the Watershed Protection Act, and development of a comprehensive Act for watersheds in Jamaica. More specifically, the Workshop started the process of reviewing the current context/status of the Watershed Protection Act; building consensus on stakeholders' vision for the legal framework governing watershed protection and management; and agreeing on the Strategic Directions and the Action Agenda to realize this vision. The workshop process utilized Advanced Participation Methods developed by Associates in Rural Development, Inc. Trevor Spence of the R2RW Team, facilitated the one-day process. This Report provides a chronology of activities that resulted in the identification of strategic directions with illustrative examples of corresponding action that will assist the Legal Division of NEPA to continue the process of revising the Watershed Protection Act.

### **6.3.6 Articulate Incentives for LWMCs**

R2RW supported the work of the Incentives Working Group of the National Integrated Watershed Management Council to pursue a study on incentives in Watershed Management with the Caribbean Natural Resources Institute (CANARI). The purpose of the study is to test, refine, and demonstrate valuation methods for a range of watershed services; and to determine the economic efficiency of incentives that are based on those values as well as their effectiveness in meeting watershed management objectives and improving local livelihoods. The study will focus on the Buff Bay/Pencar (BBP) Watershed Management Unit in north-eastern Jamaica.

## **6.4 Policy and Legislation**

The objectives of this set of activities were to improve and define the objectives and roles of GOJ in watershed management.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>1</b>	<b>Policy and Legislation</b>	
6.4.1	Watershed Policy	Final draft submitted to NEPA in November 2003
6.4.2	Watershed Protection Act	Consultations completed

### **6.4.1 Watershed Policy**

A final draft of the Watershed Policy was submitted to NEPA in November 2003. The Executive Summary from this draft can be found in Appendix 13. Leadership for the next necessary steps lies with NEPA, and the steps taken as of February 2004 are presented in Appendix 14. These include delivery of the final draft to NEPA senior management, cabinet, the PS of the MLE, and the NEPA Board. NEPA has taken leadership for the eventual consideration of the document by cabinet.

### **6.4.2 Watershed Protection Act**

A workshop was held in October 2003 with 27 representatives of government agencies, private sector, civil society and international donors and a report completed regarding required revisions to the Watershed Protection Act (WPA). At the workshop five strategic directions were identified to move the revision of the Watershed Protection Act forward. These are:

1. Legal Steps and Process
2. Funding of the Watershed Policy
3. Defining roles and responsibilities

4. Public Education, and
5. Assessment and Monitoring

Appendix 15 contains the Action Plans for each of these Strategic Directions.

## 6.5 NIWMC Activities

The objectives of this set of activities were to support and cooperate with the National Integrated Watershed Management Council (NIWMC) which plays the leading national role in coordinating the government's inputs to watershed management

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>6.5</b>	<b>NIWMC Activities</b>	
6.5.1	Tours of GRW and RGW	Tour planned as part of Retreat
6.5.2	Develop Mechanism to Incorporate LWMC Input into the NIWMC	Concept paper on LWMC recognition developed and discussed at NIWMC
6.5.3	NIWMC Retreat	Retreat planned for May 2004
6.5.4	Participate in NIWMC Working Groups	R2RW supported the attendance of five NIWMC members at the international White Water to Blue Water (WW2BW) Conference. The individuals represented the Ministry of Foreign Affairs and Foreign Trade, NEPA, the Ministry of Land and Environment, and USAID
6.5.5	Develop Website for the NIWMC	Vendor identified

### 6.5.1 Tours of GRW and RGW

A tour of the Great River Watershed in being planned as part of the 2-day retreat of the NIWMC planned for May 2004. The tour will focus on the Pineapple Anchor Project, sanitation initiatives, and tree planting programs and the Cleaning and Greening of Cambridge Anchor Project.

### 6.5.2 Develop Mechanism to Incorporate LWMC Input into the NIWMC

A concept paper on LWMC recognition developed and discussed at NIWMC.

### 6.5.3 NIWMC Retreat

Plans are set for a 2-day retreat of the NIWMC to be held May 7-8, 2004 in Runaway Bay. The agenda includes reflections on what the Council has done well, things that need to be improved upon, the strategic directions over the next year, and an Action Planning session to plan activities to reach the objectives.

### 6.5.4 Participate in NIWMC Working Groups

While R2RW's participation in the Working Groups was important, the participation of NIWMC member organizations in global workshops and seminars was equally important. As an example, R2RW supported the attendance of five individuals at the international White Water to Blue Water (WW2BW) Conference. The individuals represented the Ministry of Foreign Affairs and Foreign Trade, NEPA, the Ministry of Land and Environment, and USAID. WW2BW is an initiative aimed at fostering healthy, well-managed and productive marine and coastal ecosystems that support

stable and secure economies in coastal countries of the Wider Caribbean Region. It stimulates partnerships to promote integrated watershed and marine-based ecosystems management in support of sustainable development. The outcomes of WW2BW in the Caribbean is intended to serve as the blueprint for future programs on watershed and marine ecosystem-based management in Africa and the South Pacific.

#### **6.5.5 Develop Website for the NIWMC**

A vendor has been identified and work will begin in May 2004 on the NIWMC Website.

### **6.6 Improve Sanitation Management Practices – Anchor Project #4**

The objectives of this set of activities were to conduct the scientific research and field monitoring needed to mainstream the constructed wetland wastewater system into the range of sanitation options available to and appropriate for Jamaica.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>6.6</b>	<b>Improve Sanitation Management Practices – Anchor Project #4</b>	
6.6.1	Review and Document Cost-effectiveness of Sanitation Technologies	Costs of traditional technologies being collected
6.6.2	Set Up and Monitor Simulated Systems at CASE	Constructed wetland has been installed at CASE as part of their on-going program investigating performance and agricultural utility of waste disposal options
6.6.3	Document Effluent Quality of Constructed Wetlands	Field monitoring of existing demonstrations will commence in June 2004. Laboratory analysis will be done in conjunction with NWC Lab, Bogue, St. James.
6.6.4	Mainstream Constructed Wetland Technology	Data collection to precede mainstreaming
6.6.5	Public Awareness to Support Anchor Project	Initiation with upcoming Sanitation Workshop in May 2004

As reported in “Budgets and Implementation Plans for the Anchor Projects”, the schedule for implementing this Anchor Project was completed and placed in Gantt chart for the period January 2004 to June 2005. This report also presents specific indicators which will be used to assess the success of the Project. The main activities are also reflected in the report in a detailed budget. The primary responsibility for implementing the Anchor Projects lies with the Project Coordinator, however, he is supported by technical team members from R2RW, the Task Forces of the various WMCs, and CASE faculty.

After a competitive search, Stephen Hodges was hired as the Project Manager for this Anchor Project. Mr. Hodges comes to R2RW after an extensive career in Jamaica in all aspects of community-based technology testing and transfer with a particular specialty in sanitation technologies and programs.

**6.6.1 Review and Document Cost-effectiveness of Sanitation Technologies**

To begin this determination, the Project Manager is collecting historical information on the costs of traditional sanitation technologies including pits, septic tanks, and tile fields.

**6.6.2 Set Up and Monitor Simulated Systems at CASE**

A constructed wetland has been constructed on the campus of CASE in Portland. A general description and status report is tabulated below. The wetland is part of an on-going program at the school that is investigating performance and agricultural utility of wastewater disposal options. Operation and monitoring of the wetland have not yet begun.

Location	Objectives	Partners	Status in Reporting Period
CASE	Expand demonstration plots of sustainable agricultural practices on the CASE Tutorial Farm  Establish a constructed wetlands as well as hydroponics, spice, and ornamental fish production units to analyze in tandem with existing waste treatment facilities	Department of Agriculture, undergraduate and graduate students	Project begun, materials ordered, pond construction underway  Completion date: 3 <sup>rd</sup> quarter 2004

**6.6.3 Document Effluent Quality of Constructed Wetlands**

No progress during the reporting period.

**6.6.4 Mainstream Constructed Wetland Technology**

Data sets will be reviewed, experience presented, and promotional pamphlet reviewed as part of Sanitation Workshop scheduled for the GRW in May 2004.

**6.6.5 Public Awareness to Support Anchor Project**

Public awareness specifically in support of improved sanitation management will be initiated at the planned Sanitation Workshop.

**6.7 Transfer Approaches, Methodologies and Lessons to Key Partners and Stakeholders**

The objectives of this set of activities were to identify and mainstream the important achievements of and lessons from R2RW into NEPA and the GOJ to improve their ways of planning, overseeing, and regulating watershed management.

Work Plan Activity	Activity Description	Achievements During Reporting Period
6.7	<b>Transfer Approaches, Methodologies and Lessons to Key Partners and Stakeholders</b>	
6.7.1	Document Successes and Achievements	Initiated in R2RW Third Annual Report Continued in this Semi-annual Report
6.7.2	Showcase Achievements and Transfer Lessons Learned	Scope of Work for initial gathering of lessons learned completed and consultants identified
6.7.3	NEPA and Other Government Agencies Encouraged to Incorporate Lessons into Corporate Plans	A Draft Lessons learnt document was developed by STTA for sharing with NEPA and other Government agencies. This will be finalized by the end of 2 <sup>nd</sup> Quarter.
6.7.4	Implement Special Studies	Several special studies approved and initiated including:  <i>A Framework for Developing Alternative/Pro-poor Tourism in the Great River and Rio Grande Watersheds</i>  <i>Rio Grande Stakeholder Assessment Report</i>  <i>Proposal to GEF - An integrated approach to managing the marine, coastal and watershed resources of East-Central Portland</i>  Appendix 16 lists the special studies completed over the period.

### **6.7.1 Document Successes and Achievements**

R2RW, NEPA, and USAID/Jamaica have all begun to focus on documenting the many and significant successes and achievements of the Project. Their collection was formally done as part of the Project Third Annual Report. An initial set was presented in that document and a more refined set introduced in this Semi-annual Report.

### **6.7.2 Showcase Achievements and Transfer Lessons Learned**

To initiate the collection of lessons learned through Project activities, a Scope of Work for external technical assistance was prepared and consultants were identified to initiate this effort. The activity is expected in the early part of the next reporting period. The Scope of Work for this consultancy is presented in Appendix 17.

### **6.7.3 NEPA and Other Government Agencies Encouraged to Incorporate Lessons into Corporate Plans**

The Draft Lessons Learned document was received in April 2004, and is presently being reviewed. A workshop/retreat focused on the 2 R2RW client organizations USAID and NEPA is being planned for July 2004 to promote understanding of the lessons identified.



## 6.8 Public Awareness

The objectives of this set of activities were to promote improved watershed management and the ways in which NEPA, USAID, and Jamaican partners are contributing to environmental improvement and local capacity-building.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>6.8</b>	<b>Public Awareness</b>	
6.8.1	Publish Quarterly Newsletter	Published in February 2004
6.8.2	Complete Distribution of Posters	Distribution to all schools and government agencies complete
6.8.3	Issue Regular Press Releases	Press releases have been issued for all events held during the reporting period
6.8.4	Expand Media Opportunities	34 radio interviews were held for major events including World Wetlands Day, Feb. 2004, and World Water Day, March 2004
6.8.5	Presentations at Public Events	Staff have been proactive in making presentations at public events
6.8.6	Finalization of Public Education Kits	60 Enviro kits produced and distributed. A second batch of 60 is currently being produced.
6.8.7	Develop and Disseminate Information on Constructed Wetlands	Sanitation booklet produced, and workshops planned.

### 6.8.1 Publish Quarterly Newsletter

A regular quarterly newsletter was published in February 2004 that contained articles on current Project activities such as the Green Village Awards Program, Youth and Environment forum, community clean-ups, a community profile of Pisgah St. Elizabeth, a partner profile on the Forest Department, and articles on Staff and community leaders. 500 copies of the newsletter were printed and distributed to individuals throughout the two targeted watersheds and nationally.

### 6.8.2 Complete Distribution of Posters

The Compliance and Enforcement Posters under the "It haffi Legal" theme continued to be distributed during the period. This was done primarily at public expositions held by R2RW or key stakeholders. Posters were distributed at the following events:

- ✍ World Wetlands Day, February 2004
- ✍ World Water Day, March 2004
- ✍ 4-H Achievement Day, March 2004
- ✍ Forestry Exposition, 2004
- ✍ Solid Waste Management Seminar, 2004

NEPA, the Forestry Department, the National Water Commission, and the Jamaica 4-H clubs were all actively distributing the posters.

### 6.8.3 Issue Regular Press Releases

Press releases were issued on the following events during the reporting period:

- ✍ Week long training program on mining safety and environmental concerns, Kingston, November 2003
- ✍ Green Village 2004 Awards Ceremony, Blue Hole, St. James, December 2003
- ✍ World Wetland's Day Celebration, Port Antonio, Portland, February 2004
- ✍ World Water Day Celebration, Piskah, St. Elizabeth, March 2004
- ✍ Solid Waste Management Seminar, Montego Bay, 2004

#### **6.8.4 Expand Media Opportunities**

Opportunities for expanding media opportunities were vigorously pursued during the period. Focus was placed upon inserting environmental messages into radio programming including feature articles and "talk show" programs, given that radio is one of the primary ways for Jamaicans to receive their news.

In total, 34 radio interviews were conducted during the reporting period as follows:

- ✍ Separate radio interviews for the Green Village Awards Ceremony featuring community leaders, GRWMC members and R2RW Staff between December 8 – 17, 2003
- ✍ Featured guest appearance by Ms. Karen Turner, USAID Director on the program "My Place" aired on Klas FM December 8
- ✍ 12 separate radio interviews for the World Wetlands Day celebration featuring R2RW and NEPA staff, RGWMC members and community residents between January 31 and February 6, 2003
- ✍ 11 separate radio interviews for World Water Day celebration featuring NWC and R2RW staff, and teachers and students at Piskah All Age School between March 20 and 23, 2004.
- ✍ Radio interviews for the Montego Bay Solid Waste Management Seminar with MBMP and R2RW Staff.

In addition, both local television stations covered the Green Village Awards ceremony, the World Wetlands Day celebration, the World Water Day celebration and the Solid Waste Management Seminar. In addition, the Jamaica Information Service (JIS) has featured stories on R2RW on both radio and television during the period. Six local cable television stations have been playing the "It haffi Legal" video.

#### **6.8.5 Presentation at Public Events**

In addition to R2RW's participation in and contribution to small- and medium-sized public forums throughout Jamaica, the Project has also responded positively to a request from JCDDT for support to a large and well-known public environmental advocacy event – Green Expo. Green Expo was first held in 1996 at the National Arena with 73 exhibitors and about 11,000 visitors. Positive response from both exhibitors and visitors resulted in Green Expo becoming a regular event – held every other year during National Environmental Awareness Week. Over 100 exhibitors and 16,000 visitors are anticipated at Green Expo 2004. To support this event, R2RW will be providing targeted funding and working in partnership with JCDDT, the Environmental Foundation of Jamaica (EFJ), Canada/Jamaica Green Fund, NEPA, the private sector, and numerous volunteers.

Green Expo is presented to increase environmental awareness and display successes and achievements of those people and organizations that provide environmental leadership in the country. Featured exhibits in 2004 will include a Nature Trail, Children's Pavilion, and a Planetarium. The private sector will be represented through the local and foreign companies that will display environmentally friendly products and services, or what their company has done to reduce pollution. Government agencies will be strongly represented explaining their regulatory roles and providing information on their activities and services pertaining to the environment. Finally, a full range of NGOs and CBOs will display their environmental projects and activities.

#### **6.8.6 Finalization of Public Education Kits**

60 Enviro kits were produced and distributed during the reporting period. Each kit was sent out with a confirmation form and an evaluation form. The kits contain the following:

- ✍ 5 short stories
- ✍ 2 flyers
- ✍ 11 booklets
- ✍ 13 brochures
- ✍ 33 posters
- ✍ Buttons and stickers

Reactions to the kits have been extremely positive. They contain a treasure trove of information on environmental issues that have been extremely useful to educators, animators, and public education officers. A second batch of 60 kits will be produced in the next period.

#### **6.8.7 Develop and Disseminate Information on Constructed Wetlands**

Flyers on constructed wetland technology previously produced were disseminated during the period. The start-up of the Sanitation Management Practices Anchor Project has seen the development of new and more user friendly documents on Sanitation. A booklet "What Everyone Should Know About Sanitation, Health and the Environment" was produced that graphically presents Health and Sanitation issues related to sewage disposal, present means of disposal, and alternatives for rural households. This information will be used at a series of Sanitation workshops planned for the next reporting period.

## 7. Project Management

Achievements related to managing this complex Project, R2RW, during the reporting period are described in the following three sections.

7.1	<i>Grant Fund Management</i>
7.2	<i>Staffing</i>
7.3	<i>Management Arrangements</i>

### 7.1 Grant Fund Management

The objectives of this set of activities were to establish the capacity of WMCs to review and decide on funding grant applications, initiate the final set of R2RW grant-funded activities, shift the orientation of the grant program toward the four Anchor Projects, and monitor watershed impacts of grant-funded projects.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>7.1</b>	<b>Grant Fund Management</b>	
7.1.1	Refine Grant Criteria for Anchor Projects	Published "Budgets and Implementation Plans for Anchor Projects"
7.1.2	Continued Screening of Grant Applications by WMCs	Task forces, the RGWMC, and the GRWMC led review of and decision-making concerning grant applications
7.1.3	Implement 8 New Grants	11 new grants initiated
7.1.4	Regular Monitoring of Grant Activities	Monitoring and indicators document prepared by consultant, reviewed by R2RW staff, final draft prepared and submitted to R2RW by consultant

#### 7.1.1 Refine Grant Criteria for Anchor Projects

The four new Anchor Projects were presented to the GRWMC and the RGWMC, as well as to the Grant Selection Committees of both groups. A consensus was developed in both watersheds that new grant activities should substantially comply with the programmatic emphasis of the Anchor Projects. For example, in the Rio Grande, it was agreed that most new grants should directly support the two Anchor Projects relevant to the RGW: the Land Management Project in the RGW and the Sanitation Management Practices Project. The new criteria were implemented in January 2004 with the start of the four Anchor Projects and affected the approval of three new agroforestry grants approved at Dumphries, Durham Gap and Moore Town as well as a new sanitation initiative in Coopers Hill. The final budgets, implementation plans and performance criteria for the Anchor Projects prepared under a short term contract with Cordia Thompson incorporate the revised grant criteria.

#### 7.1.2 Continued Screening of Grant Applications

Since the start of the Project, the RGWMC received 35 grant applications of which 13 were favourably reviewed and 19 rejected. The GRWMC considered 15 grant applications of which

nine were recommended for approval. The WMCs was notified that no new grants will be approved after March 31, 2004 due to the fact that all funds for grants were fully allocated.

### 7.1.3 Implement 8 New Grants

8 new community level grant activities are described throughout this Semi-annual Report. Grant descriptions and the related sections of this Report are tabulated below

Location	Objectives	Partners	Description in SAR
1. Mafoota	<p>Construct water storage ponds for irrigation by 20 farmers' during dry season.</p> <p>Erect facilities for producing vegetable and herb plantlets and a holding/distribution center for tree seedlings</p> <p>Enhance livelihoods and demonstrate environmentally friendly agricultural practices including non-use and judicious use of pesticides and inorganic fertilizers, composting, and soil and water conservation</p>	Mafoota Farmers Group	Section 3.3.1
2. Cacoon Castle	<p>Reverse environmental degradation from shifting cultivation and poor agronomic practices</p> <p>Introduce improved, practical and affordable technologies to produce exotic vegetables and herbs, semi-perennials (pineapples) and perennials (fruit trees and timber) for full-year cultivation</p> <p>The main market for the products will be Round Hill Hotel, St. James and local public markets</p>	Cacoon Castle Farmers' Group/Cacoon Castle Jamaica Agricultural Society	Section 3.3.1
3. Catadupa	<p>Resuscitate 20 acres of existing cocoa</p> <p>Establish 15 acres of new cocoa</p> <p>Improve cocoa production by approximately 20 tons of dried beans per annum, after four years</p> <p>Support existing cottage industry producing chocolate bars for local and export markets.</p> <p>Use minimal tillage, excellent root structure, and heavy leaf litter of cocoa for land stability and erosion control</p>	Catadupa Farmers Group	Section 3.3.3
4. Moore Town	<p>Promotion of sustainable land management practices and creation of sustainable livelihoods.</p> <p>Establishing fruit and timber trees with plantains to provide economic return to farmers while trees grow. Pineapple and sugarcane as vegetative barriers on contours. Other physical barriers include check dams and gully plugs.</p> <p>The farmers group will be assisted with a tool pool.</p> <p>Training will be through promotional field days and individual farm visits.</p>	Moore Town Jamaica Agricultural Society	Section 4.3.1

Location	Objectives	Partners	Description in SAR
5. Durham Gap	<p>Establish and promote agro-forestry systems among farmers of Durham Gap and Dumphries to improve watershed health</p> <p>Expand improved land husbandry practices, and improved ground cover</p> <p>Establish fruit and timber trees with plantains to provide economic return to farmers while trees grow</p> <p>Pineapple and sugarcane used as vegetative barriers on contour. Other physical barriers include check dams and gully plugs</p> <p>Group to be assisted with tools and training through promotional field days and individual farm visits.</p>	Durham Gap Jamaica Agricultural Society	Section 4.3.1
6. Chatsworth	<p>Establish and promote agro-forestry systems to improve watershed health</p> <p>Improved land husbandry practices, improved ground cover and training</p> <p>Establish fruit and timber trees with plantains for economic return to farmers while trees grow</p> <p>Use pineapple and sugarcane as vegetative barriers on contour. Other physical barriers include check dams and gully plugs</p> <p>Training through promotional field days and individual farm visits</p>	Chatsworth Farmers Group	Section 4.3.1
7. Rio Grande Valley	<p>Linking small businesses in the Rio Grande valley with markets</p> <p>Increase business skills and confidence in craft producers and hoteliers</p> <p>Increase income for craft producers, hoteliers and trail guides</p> <p>Increase ecotourism activity in and exposure of the Rio Grande Valley</p> <p>Training for craft producers, producing a catalogue of Valley products, distributing the catalogue</p> <p>Benefit 60 craft producers in the Valley presently producing craft and transporting and marketing them in Ocho Rios</p> <p>Support watershed protection by strengthening the linkage between craft producers with the business community to generate income and promote sustainable utilization of natural resources</p>	Grand Valley Tours	Section 4.3.3
8. Coopers Hill	Build a flush toilet system using water harvesting and a constructed wetland disposal system to replace existing pit latrines	Coopers Hill Primary School Parent	Section 4.4.2

Location	Objectives	Partners	Description in SAR
	Establish focal point for public awareness activities in RGW	Teachers Association	

#### **7.1.4 Regular Monitoring of Grant Activities**

All active grants are assigned to a member of the R2RW Technical Team to take the lead in the implementation and monitoring of grant activities. This staff member visits the project site on the average of 2 –4 times per month, with the number of visits increasing during periods of active implementation. During these visits, status on achievement of project objectives are assessed, fund disbursement and use is closely monitored, and community participation actively encouraged.

In order to assess and measure the impacts of various grant-funded activities in the targeted watersheds, R2RW mobilized a consultant to rationalize local-level monitoring and evaluation systems with the needs of the Project Performance Monitoring Plan. This consultant report, prepared by Brenda Bergman of ARD's home office, was delivered in final draft form to R2RW in October 2003. It was intended for use in refining indicator reporting and for guiding the action planning and reporting mechanisms of the four Anchor Projects developed during the reporting period.

## **7.2 Staffing**

The objectives of this set of activities were to ensure that the Project was fully and appropriately staffed, and that each staff member is adequately supported to carry out activities under the Annual Work Plan.

Work Plan Activity	Activity Description	Achievements During Reporting Period
<b>7.2</b>	<b>Staffing</b>	
7.2.1	Implement New Organizational Structure from Internal Review	New Organizational Structure implemented
7.2.2	Enhance Precision of Scopes of Work for STTA	SOWs developed with rigorous review from staff and clients
7.2.3	Staff Team-building and Information Sharing	Retreat held in December 2003

#### **7.2.1 Implement New Organizational Structure from Internal Review**

During the mid-term Project assessment conducted in June 2003, a new organizational structure was proposed that accounted for all new staff positions, brought all support staff from the previous CWIP project under R2RW, and rationalized the management responsibilities of the COP and Project staff. This new organizational structure has been implemented by R2RW and currently guides the operations of all Project activities.

#### **7.2.2 Enhance Precision of Scopes of Work for STTA**

During the reporting period Scopes of Work were developed and approved for 11 separate activities including a Sediment Budget Study of the Rio Grande, Project Coordinators for the four Anchor Projects, Lessons Learned from the R2RW, and for Purchase Orders with external

groups such as MIND to develop Compliance and Enforcement courses. The SOWs are developed by technical staff and vetted internally and with clients prior to the identification of consultants. Every effort is made to ensure that the backgrounds are comprehensive, the objectives clear, and the activities specific. All SOWs contain sections on the personnel identified, the outputs, and the schedule for completing the work.

### **7.2.3 Staff Team-building and Information Sharing**

R2RW held a team-building retreat in December 2003. The objectives were

1. Determining the things that the Project has done well, and those that could be improved on;
2. Assessing staffing issues and team dynamics
3. Reviewing the Fourth Annual Work Plan, and establishing priorities by month
4. Reviewing the status and plans for the Anchor Projects.
5. Reviewing and making adjustments to the Project approaches

The retreat identified on the ground activities and demonstrations as well as solid programs that promote community stewardship to be major strengths of the Project. Each technical team member presented their priority activities based upon the Fourth Annual Work Plan, and received feedback from the rest of the team. A comprehensive list of significant outputs over the next six months was developed and a consensus developed around how to measure achievements. The retreat was successful in building team spirit and renewing individual commitments to the process and outputs of R2RW.

### **7.3 Management Arrangements**

The objectives of this set of activities were to continue to refine the cooperative, responsive and effective management of project resources to accomplish project objectives.

<b>Work Plan Activity</b>	<b>Activity Description</b>	<b>Achievements During Reporting Period</b>
<b>7.3</b>	<b>Project Management</b>	
7.3.1	Implement Recommendations from the Internal Review	Each recommendation addressed and monitored
7.3.2	Project Coordination Meetings	After submission of Fourth Annual Work Plan, the R2RW technical staff held a two-day retreat to review and strategize
7.3.3	Refine Indicators in Performance Monitoring Plan	Draft report on performance indicators received and being finalized.
7.3.4	Fourth Annual Work Plan Published	Published after stakeholder review and input
7.3.5	Semi-annual and Annual Reports Published	Work plan used as guide for delivery of this Semi-annual Report

#### **7.3.1 Implement Recommendations from the Internal Review**

An Internal Review of R2RW was conducted by external consultants in June 2003. This Review resulted in a series of recommendations which are presented in Appendix 18. Under the leadership of the R2RW COP, each recommendation has been addressed by the Project including those that have completion dates in later parts of 2004. Project staff have directed focused effort toward this and, with the exception of one recommendation concerning direct



support needs of NEPA, has done a commendable job of reflecting and acting on the recommendations.

### **7.3.2 Project Coordination Meetings**

Regular meetings are held to assist in coordinating and sharing information on the activities of R2RW in the GRW, the RGW and nationally. These have included the following:

1. Weekly meetings (held on Monday mornings) of full time technical and administrative staff to plan activities for the coming week.
2. Monthly Technical Team Meetings (held on the first Monday of each month) to update all team members on the activities of each member.
3. Monthly Senior Management Meetings with NEPA to coordinate activities with NEPA staff.
4. Monthly Project Implementation Committee meetings to resolve policy issues related to R2RW implementation.

R2RW staff have benefited from the regular participation of the CWIP2 COP, Dr. Scott McCormick, at weekly staff planning meetings of R2RW. Through these discussions, the two projects have been able to coordinate many efforts, particularly those in Portland and the RGW.

### **7.3.3 Refine Indicators in Performance Monitoring Plan**

A consultancy was undertaken in October 2003 to help refine the performance indicators for the R2RW Project. The objective of this work was to establish a set of indicators of success for R2RW field-based activities that are consistent with ongoing and planned R2RW field-based interventions under R2RW Component 1, and with USAID Jamaica's current results framework. Indicators would then be reviewed at key intervals throughout the life of the project to ensure that they remain effective and relevant to project objectives, approaches, and operating conditions. The suggested revised indicators are designed not only to clarify the definition and measurement of progress, but also to assist in the realization of progress through the remaining two years of R2RW.

### **7.3.4 Fourth Annual Work Plan Published**

The R2RW Fourth Annual Work Plan (FAWP) was produced in draft form, submitted to USAID/Jamaica for comments, amended to reflect comments received, and submitted in final form (four copies) to USAID/Jamaica on 12 January, 2004. A retreat was held December 12-13, 2004 to build consensus among clients and stakeholders on R2RW approaches and activities outlined in the Work Plan. See Appendix 19 for Retreat Agenda.

### **7.3.5 Semi-annual and Annual Reports Published**

This semi-annual report was completed by the R2RW team and submitted in a timely manner to USAID/Jamaica and NEPA.

## 8. Performance Indicators

The R2RW contributed to the following USAID's SO2 Indicators established for the following Intermediate Results:

1. **IR 1 - Increased adoption of environmentally sound practices**, by:
  - ✍ Number of improved practices by target populations.
  - ✍ Number of private sector entities practicing or supporting environmentally friendly practices.
  - ✍ Number of organizations demonstrating tangible results to beneficiaries in the field.
  - ✍ Number of initiatives in place to support compliance with and enforcement of environmental regulations.
  - ✍ Number of partners implementing gender equity considerations.
  - ✍ Number of public awareness activities conducted.
2. **IR 2 - Adoption of policies for improved environmental management**, through:
  - ✍ Number of new or revised regulations and policies drafted/developed
  - ✍ Increased compliance and enforcement of environmental regulations in targeted areas.
  - ✍ Number of organizations participating in R2RW supported watershed management coordination activities.
3. **IR 2.1 - Effective promulgation and enforcement of environmental regulations**, through:
  - ✍ Number of new or revised regulations and policies drafted/developed
  - ✍ Increased compliance and enforcement of environmental regulations in targeted areas.
4. **IR 2.2.1 - Increased capacity of key GOJ agencies**, by:
  - ✍ Number of organizations participating in R2RW supported watershed management coordination activities.

## Contract Objective (CO) Indicators

### 8.1 Overall Project

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Contract Objective: Natural resources under improved and sustainable management in identified watersheds</b>									
Percentage of land under sustainable management in targeted areas	<p><u>Sustainable Management:</u> Targeted appropriate practices and sustainable resource utilization principles applied</p> <p><u>Targeted Areas:</u> Geographic areas identified in work statement and prioritized for intervention following rapid reconnaissance and establishment of baseline data</p> <p><u>Unit:</u> Cumulative numerical</p>	2000	0	20	45	35	38	<p>Targeted appropriate practices and sustainable resource utilization principles were applied in 20 communities out of 52 communities in the targeted areas.</p> <ol style="list-style-type: none"> <li>1. Retrieve: Water harvesting and sanitation systems</li> <li>2. Content: Water harvesting &amp; sanitation</li> <li>3. Cornwall Barracks: Water supply</li> <li>4. Comfort Castle: Water supply</li> <li>5. Moore Town: Water supply; agroforestry</li> <li>6. Passley Gardens: Integrated waste management for crop &amp; livestock utilization farm demonstration</li> <li>7. Cacoon Castle: Vegetable production; tree planting</li> <li>8. Montpelier: Goats</li> <li>9. Knockalva: Goats</li> <li>10. Pigsaw: sanitation system</li> <li>11. Mafoota: Car wash &amp; laundry; vegetable production &amp; irrigation</li> <li>12. Catadupa: Tree planting activities; Cocoa production</li> <li>13. Millbank Sanitation Project</li> <li>14. Rushea: Hot Pepper production</li> <li>15. Bethel Town: Hot Pepper and Honey</li> <li>16. Coopers Hill: Agroforestry; sanitation</li> <li>17. Industry: Agroforestry</li> <li>18. Rock Hall: Agroforestry</li> <li>19. Durham Gap: Agroforestry</li> <li>20. Chatsworth: Agroforestry</li> </ol>	SO2 Indicator

**8.2 Component 1 Targets**

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Contract Result: Through targeted, sustainable environmental practices by resource users identified and promoted</b>									
Number of improved practices adopted by target populations	<p><u>Improved Practices Adopted:</u> Activities that improve environmental conditions and sustain resource base</p> <p><u>Unit:</u> Number of practices introduced that are applied and sustained by land managers. Cumulative numerical</p>	2000	0	10	10	14	18	<p>18 practices were introduced to date. These are:</p> <ol style="list-style-type: none"> <li>1. Fruit trees establishment</li> <li>2. Agroforestry interventions</li> <li>3. Community clean-up of solid waste</li> <li>4. Rural water supply</li> <li>5. Rooftop water harvesting for schools and households</li> <li>6. New varieties of bananas and plantains</li> <li>7. Constructed wetlands for purifying septic effluents</li> <li>8. Car wash and laundry</li> <li>9. Mucuna seeds for leguminous ground cover</li> <li>10. Intensive goat management systems</li> <li>11. Planting timber trees under the Plant A Tree Program (GRW)</li> <li>12. Honey production</li> <li>13. Vegetable production</li> <li>14. Herbs and spices production</li> <li>15. Hot pepper production</li> <li>16. Improved pineapple production</li> <li>17. Cocoa establishment</li> <li>18. Vegetative barriers along contours</li> </ol>	IR 1

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Support to SO2	
		Year	Actual	Target	Actual	Target	Actual		
<b>Contract Result: Through targeted, sustainable environmental practices by resource users identified and promoted (cont'd)</b>									
Number of organizations demonstrating tangible results to beneficiaries in the field	<p><u>Organization:</u> formalized group operating in the field</p> <p><u>Results:</u> Provision of technical, program and financial services</p> <p><u>Unit:</u> Cumulative numerical</p>	2000	0	5	8	7	17	<ol style="list-style-type: none"> <li>1. Sanitation Support Unit with demonstration project in Retrieve</li> <li>2. RADA with new crop technologies.</li> <li>3. JAS with community groups agricultural projects</li> <li>4. Goat Breeders Association with new goat management systems</li> <li>5. Farmer training by JOAM in organic farming</li> <li>6. Montego Bay Marine Park delivering public awareness programs with the Action Boyz</li> <li>7. Port Antonio Theatre Group delivering environmental messages through drama</li> <li>8. Forestry Department with Plant A Tree Program and agroforestry projects</li> <li>9. NSWMA with Community Clean-ups and solid waste management</li> <li>10. JCDT with public awareness in the upper RGW</li> <li>11. Portland PDC with public awareness in the lower RGW</li> <li>12. Jamaica 4-H clubs with Environmental Challenge Program</li> <li>13. PEPA with Schools Environmental Education program</li> <li>14. CASE with demonstration of integrated waste management</li> <li>15. SDC with community mobilization strategies</li> <li>16. St. James Parish Council with implementation of Cambridge Anchor Project</li> <li>17. Pesticide Control Authority with reduction of child poisoning due to pesticides</li> </ol>	IR 1.1

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Contract Result: Through targeted, sustainable environmental practices by resource users identified and promoted (cont'd)</b>									
Number of Private Sector entities practicing or supporting environmentally friendly practices	Private Sector: Profit-making entities whether small, medium or large  <u>Unit:</u> cumulative numerical	2000	0	6	7	8	13	Work was done with 14 entities:  <ol style="list-style-type: none"> <li>1. Farmers in Catadupa with trees and cocoa production.</li> <li>2. Farmers in Rushea with hot pepper.</li> <li>3. Farmers in Cedar Grove with hot pepper.</li> <li>4. Farmers in Cacoon Castle with vegetables, herbs &amp; spices</li> <li>5. Private sector support for Great River Green Village program prizes</li> <li>6. Sandals in Mafoota and participation in public awareness techniques</li> <li>7. Round Hill Hotel in Cacoon Castle</li> <li>8. Farmers in Coopers Hill with agroforestry</li> <li>9. Farmers in Industry with agroforestry</li> <li>10. Farmers in Rock Hall with agroforestry</li> <li>11. Farmers in Durham Gap with agroforestry</li> <li>12. Farmers in Chatsworth with agroforestry</li> <li>13. Farmers in Moore Town with agroforestry</li> </ol>	IR 1 IR 1.2

### 8.3 Component 2 Targets

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Component 2 Result: Incentives for and obstacles to enforcement of targeted environmental regulations identified and solutions supported</b>									
Number of new or revised regulations and policies drafted/developed	<u>New or revised regulations and policies:</u> Regulations and policies developed that promote sustainable environmental practices.  <u>Unit:</u> Cumulative numerical	2000	0	1	1	2	1	The target of <b>one</b> new or revised regulation and policy for years 1 -4 was met with the completion of a Draft Watershed Policy that was presented to NIWMC, NRCA Board and Cabinet (through MLE). Consultations have been held towards a revision of the Watershed Protection Act, which follows the updated Watershed Policy.  A workshop was held to begin the revision of the Watershed Protection Act	IR 2 IR 2.1
Number of incentives in place to support compliance with and enforcement of environmental regulations	<u>Incentives:</u> payment or concessions in place promoting sustainable environmental practices and resource use  <u>Unit:</u> Cumulative numerical	2000	0	6	4	8	9	<ol style="list-style-type: none"> <li>1. Incentives Working Group of the NIWMC systematically pursuing implementation of incentives</li> <li>2. CANARI supported study and testing of incentives in Buff Bay/Pencar Watershed</li> <li>3. Great River Green Village Program</li> <li>4. Plant A Tree Program in the GRW</li> <li>5. Tree Planting Initiative in RGW under Anchor Project</li> <li>6. Public Awareness to inspire community Clean-ups in the River Action Program, GRW</li> <li>7. Public awareness to inspire community clean-ups through drama, schools environmental program, and community education, RGW</li> <li>8. Environmental challenge program in schools</li> <li>9. Training of farm groups in pesticide use and disposal</li> </ol>	IR 1.2 IR 2.1

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Component 2 Result: Incentives for and obstacles to enforcement of targeted environmental regulations identified and solutions supported</b>									
Increased compliance and enforcement of environmental regulations in targeted areas	<p><u>Increase Compliance and Enforcement:</u> Number of activities designed to increase knowledge and understanding of environmental laws</p> <p><u>Unit:</u> cumulative total</p> <p>Note: The definition was changed to quantify measurable activities</p>	2000	0	8	13	15	16	<p>16 activities have been conducted to date.</p> <ol style="list-style-type: none"> <li>1. Study of Policy and Legislative Framework</li> <li>2. Meeting/Workshop of GRW Task Force to review draft Policy and Legislative Framework</li> <li>3. Meeting of Legal and Policy Experts to review draft Policy and Legislative Framework</li> <li>4. Joint input of ENACT and R2RW into the preparation of a Pocket-sized field guide, on Jamaica's environmental laws, geared towards supporting enforcement officers in the field</li> <li>5. Input into the Portland Multi-Agency Group on C&amp;E, and lead-role in the establishment of a Portland C&amp;E Task Force</li> <li>6. Four Meetings of the GRWMC C&amp;E Task Force. Meetings are used as mini-workshops</li> <li>7. Joint support by ENACT and R2RW for a 3-Day "Training of Trainers Workshop" for NEPA's staff</li> <li>8. Three Focus Group Meetings (Kingston, Montego Bay, and Port Antonio), to review draft of a review of "Incentives to encourage Private Sector involvement in watershed management"</li> </ol>	IR 2 IR 2.1



Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Component 2 Result: Incentives for and obstacles to enforcement of targeted environmental regulations identified and solutions supported (cont'd)</b>									
								<ul style="list-style-type: none"> <li>9. Design of posters to educate the public about C&amp;E Issues</li> <li>10. Production of scientific study of causes of erosion in St. Margaret's Bay</li> <li>11. Production of scientific study on sediment budget for Rio Grande River and St. Margaret's Bay</li> <li>12. Brochures drafted</li> <li>13. Video or Jingle being produced</li> <li>14. 5 symposia to sensitize judiciary on environmental Laws and regulations</li> <li>15. Quarry Monitoring Committee established for Portland</li> <li>16. Courses developed with MIND for enforcement officers and community leaders on environmental laws and advocacy</li> </ul>	

**8.4 Component 3 Targets**

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Component 3 Result: Capacity of Jamaican Government Agencies, International donors, and private-sector and civil society organizations to implement effective watershed management programs enhanced</b>									
No. of organizations participating in R2RW supported WM coordination activities	<p><u>Organization:</u> Group or institution</p> <p><u>Participating:</u> Acquiring and sharing information at the local or national level</p> <p><u>Unit:</u> Cumulative total</p>	2000	0	8	20	10	27	<ol style="list-style-type: none"> <li>1. National Environment and Planning Agency (with SWB acting as lead)</li> <li>2. Min. of Land and Environment</li> <li>3. NIWMC</li> <li>4. Rural Agricultural Dev. Authority</li> <li>5. Forestry Department</li> <li>6. Jamaica Agricultural Society</li> <li>7. National Water Commission</li> <li>8. Public Health Department</li> <li>9. Social Development Commission</li> <li>10. Sanitation Support Unit</li> <li>11. Montego Bay Marine Park</li> <li>12. Local Authorities (Parish Councils)</li> <li>13. Water Resources Authority</li> <li>14. Sandals Hotel</li> <li>15. Round Hill Hotel</li> <li>16. Montpelier Citrus Company</li> <li>17. Portland Environment Protection Association</li> <li>18. Valley Hikes</li> <li>19. GRWMC</li> <li>20. RGWMC</li> <li>21. CBO's</li> <li>22. Jamaica 4H Clubs</li> <li>23. Jamaica Conservation Development Trust</li> <li>24. Pesticides Control Authority</li> <li>25. University of the West Indies</li> <li>26. College of Agriculture Science and Education</li> <li>27. Knockalva Agricultural School</li> </ol>	IR 2 IR 2.2

## 8.5 Cross-Cutting Activities

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Cross-Cutting Activities</b>									
<p><b>Gender Equity Strategy</b></p> <p>Number of partners implementing gender equity considerations</p>	<p><u>Gender Equity</u>: fairness and justice among men, women and special groups in accessing project benefits, participating in decision making and in undertaking project responsibilities</p> <p><u>Unit</u>: Numerical annual totals</p> <p>Note: Definition expanded to include "special groups" based upon stakeholders input.</p>	2000	0	4	9	6	9	<ol style="list-style-type: none"> <li>1. Gender training materials produced for the GRWMC</li> <li>2. Case study materials produced for gender training of the RGWMC</li> <li>3. Report of the Gender for the GRWMC</li> <li>4. Paper for the CWWA on R2RW's gender training approach</li> <li>5. Revision of the Grant Fund to include gender equity</li> <li>6. Report of Gender training of the RGWMC</li> <li>7. Overall gender report of project activities</li> <li>8. Draft checklist completed and in use</li> <li>9. Gender disaggregated data included in the KAP survey and is being used to guide the development of public awareness strategies.</li> </ol>	<p>IR 1</p> <p>IR 1.1</p> <p>IR 1.2</p>

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Grant Fund</b>  Number and value of grants approved and implemented that promote adoption of sound environmental practices	<u>Environmental practices adopted</u> : activities that improve environmental conditions  <u>Unit</u> : Cumulative number and value (US\$ thousands)	2000	0	10 \$300	16 \$260	14 \$400	29 \$370	The following grants were approved:  1. Water harvesting and waste water disposal at Retrieve All Age School 2. Water harvesting and waste water disposal at Pisgah School 3. Mafoota Car Wash & Laundry 4. Mafoota Irrigation 5. Millbank Sanitation 6. Coopers Hill Sanitation 7. Moore Town Water Supply Improvement 8. Rushea Hot Pepper Production 9. Cedar Grove Hot Pepper production 10. Hermitage Honey Production 11. Content Water supply and sanitation 12. Rock Hall Agroforestry 13. Industry Agroforestry 14. Coopers Hill Agroforestry 15. Durham Gap Agroforestry 16. Moore Town Agroforestry 17. Chatsworth Agroforestry 18. Comfort Castle Water Supply 19. Cornwall Barracks Water Supply 20. CASE Demonstration Project 21. JCDT Community Education Program for SWM in the Upper RGW 22. Portland PDC Public Awareness Program in the Lower RGW 23. Jamaica 4-H Clubs Environmental Challenge Program 24. PEPA Rio Grande Valley Schools Environmental Education Program 25. Cacoon Castle Vegetables & Herbs and Spices 26. Strengthening Ecocultural Tourism & Income Generation in the RGW 27. Green Expo 2004 28. Catadupa Cocoa Production 29. Pesticide Control Authority Reduction of Child Poisoning.	S02

Performance Indicator	Indicator Definition And Unit of Measure	Baseline Data		Project Year 3		Project Year 4		Comments	Support to SO2
		Year	Actual	Target	Actual	Target	Actual		
<b>Cross-Cutting Activities (cont'd)</b>									
<b>Public Awareness</b>  Number of public awareness activities conducted	<u>Public Awareness:</u> formal and non-formal education, information sessions, extension and environmental education  <u>Unit:</u> Numerical annual totals	<b>2000</b>	<b>0</b>	<b>12</b>	<b>28</b>	<b>12</b>	<b>26</b>	1. NIWMC Tour of GRW 2. GRW video promoted 3. Monthly GRW PATF meetings held 4. Two newsletters produced. 5. 5 News releases produced. 6. RGW public awareness working group active. 7. Posters for C&E produced, launched and distributed 8. Video of Constructed Wetlands Technology produced 9. Stewardship/leadership training course developed in conjunction with MIND 10. Clean-up work days for solid waste coordinated in several communities 11. Implementation of River Action Program (Phase 1 and 2) 12. "Enviro" kits developed and distributed 13. Great River Green Village Program 2003 completed 14. Magistrates symposia series 15. Pocket Guide on environmental laws produced 16. World Wetlands Day 17. Content, St. James Environmental Gathering 18. CASE Career Fair (2004) 19. RADA Youth in Agriculture Expo 20. World Water Day March 22, 2004 - Pisgah, St. Elizabeth 21. World Wetlands Day Feb 2, 2004 Pt Antonio Marina 22. Green Village Awards Dec 11, 2003 23. 4-H Nyamins and Jammins Oct 20, 2003 24. World Food Day Oct 16, 2003 Hope Road 25. Lecture Case Feb 19, 2004 26. Round Hill Hotel Env. Fair Dec, 2003	IR 1

## 9. Annual Period Performance Benchmarks

This section provides an update of the performance benchmarks that were previously proposed for the 4<sup>th</sup> year of R2RW. Progress on the Performance Benchmarks are reported on an annual basis, hence this section provides an interim status of the annual benchmarks. Individual tasks in the FAWP and their percentage completion can be viewed in Appendix 20, Tracking Gantt.

### Component 1A: Sustainable Environmental Practices in the Great River Watershed

#### **Plan to Phase Out R2RW Support to GRWMC Developed**

Completed

#### **Improved Pineapple Production Practices Demonstrated**

40% completed

#### **Cambridge CDC Implementing Activities to Address Solid Waste Management**

80% completed

#### **Eight Communities Educated on Waste Management Issues**

Completed. Achieved through Action Boyz and presentations, clean-up days and solid waste seminar with MBMP.

#### **Three Initiatives to Enhance Public Awareness of Priority Issues Implemented**

Completed.

#### **Six Communities Educated Through Community Drama**

Completed through Action Boyz performances.

### Component 1B: Sustainable Environmental Practices in the Rio Grande Watershed

#### **RGW Strategic Plan Prepared**

Not started

#### **Plan for Phase Out of R2RW Support to RGWMC Developed**

Completed

#### **Three New Agro-forestry Project Implemented**

50% completed. Three new agroforestry projects approved and being implemented.

#### **Three Water Harvesting and Sanitation Projects Completed**

40% completed. Projects identified and approved. Implementation in progress.

#### **Two Exchange Visits to GRW Conducted**

Completed.

**Annual Gender Report Prepared**

Completed.

**Component 2: Compliance and Enforcement**

**Seminar to Educate Lay Magistrates and Deputy Clerks of the Courts Held**

80% completed. Training conducted for three groups – clerk of the courts, resident magistrates and Supreme Court judges.

**Curricula and Training Materials for Training of Enforcement Personnel Developed**

Development of curricula and training materials completed and institutionalized through Management Institute for National Development.

**Training Seminar for Community Leaders in Compliance and Enforcement Held**

95% completed. Targeted at Justices of the Peace and community leaders.

**Pocketsize Field Guide Finalized, Distributed and in Active Usage**

Completed

**Portland Quarries Monitoring Committee Established and Addressing Mining Issues**

Completed

**Baseline of Environmental Court Cases Established**

40% completed. Compendium of court cases being compiled.

**Component 3: Capacity of Jamaican Government Agencies, International Donors, and Private Sector and Civil Society Organizations to Implement Effective Watershed Management Programs Enhanced**

**GPS Units Procured for SWB**

Not done. Awaiting specifications from NEPA.

**PubEd Kit Developed, Produced, and Distributed**

Completed. Titled “Enviro Kits”, these have been widely distributed to key institutions and individuals.

**Three Training Courses Held**

Completed.

**Watershed Policy Finalized**

98% completed.

**Two LWMC Networking Workshops Held**

Completed.

**Four Newsletters Published**

25% completed. One of four newsletters for the year completed.

**Project Management****All Grants Monitored Twice Per Year**

Completed

**Eight New Grants Implemented**

13 new grants approved and being implemented.

**New Staffing Structure Implemented and Functional**

Completed

**Eight Project Implementation Committee Meetings Held**

50% completed

**On Time Submission of Work Plan and Semi Annual Reports**

Ongoing



## 10. Program Expenditures

On the following page, a summary of program expenditures incurred during the period October 1, 2003 to March 31, 2004 is provided. The expenditures are listed by key support areas, with a breakdown of expenditures by project Components, which partially correspond to USAID-required Contract Line Item Numbers (CLINs). The expenditures relate to the projected fiscal plans submitted in the R2RW Life of Project Strategy and Fourth Annual Work Plan. The key support areas in the expenditure summary also correspond to NEPA's code accounts for fiscal reporting to the GOJ.

**ARD, Inc.**  
**Ridge to Reef Watershed Project**  
**Period October 1, 2003 to March 31, 2004**  
 Contract No. 532-C-00-00-00235-00

	CLIN 1	CLIN 2	CLIN 3	CLIN 4	CLIN 5	CLIN 6	TOTAL
Project Management & Admin	134,316	61,314	56,012	0	2,760	2,272	256,674
Travel, Transportation & Per Diem	33,876	12,379	2,968	0	1,494	0	50,717
Equipment & Supplies	31,641	23,849	5,962	0	3,138	0	64,590
Operating Costs	47,826	25,170	6,957	0	3,237	0	83,191
Subcontracts & STTA	78,203	30,758	881	0	464	0	110,305
Grants	27,959	0	0	0	0	0	27,959
Training							
- Study Tours	0	0	0	0	0	0	0
- In-Country	12,010	2,309	1,272	0	0	0	15,591
<b>TOTALS</b>	<b>365,830</b>	<b>155,778</b>	<b>74,053</b>	<b>0</b>	<b>11,093</b>	<b>2,272</b>	<b>609,027</b>

## Strategic Actions and Implementation Plan for R2RW phase out of support to the GRWMC

	Participants	Launch Activity	April – June	July – September	October - December	January - March	Victory Complete
Institutional Arrangements	Barrington Taylor Don Streete, John White Basil McFarlane Dianne Dormer, Bernice Williams	Decide on partner agencies for the GRWMC	Establish secretariat; Start drafting of Constitution; Decide on lead agency;  Registration of GRWMC; Source consultant to assist in drafting of Constitution/MOU if necessary	Start drafting MOU; Move to incorporate GRWMC activities in Work Plans and Budgets of partner agencies	Tour of GR by Minister of Government and Agencies	Signing of MOU	GRWMC registered as a legal entity and MOU signed
Finance/Promotion and awareness	Hugh Graham Ivel McLean Karen McDonald-Gayle Neville Williams	Establish fund raising Committee of the GRWMC	Complete training in proposal writing and fund raising; Identify resource persons from training in proposal writing and fund raising	Develop budgets and line items  Prepare proposals for financing the secretariat	Prepare and submit grant proposals  To identify non-grant sources of funding	Investment surplus funds in medium term instruments	GRWMC still meeting, still working and meeting financial obligations
	Sonja Harris Sadie Dixon	Prepare lessons learnt on GRWMC process	Refine public awareness strategies modeled on R2RW	Design a promotional program on GRWMC activities	Present program for incorporation into agencies work plans and budgets		GRWMC/Environmental awareness specified in 2005 budgets and work-plans of key agencies
Train and build capacity	Theodore Rhone, Patti Bedasse  Carlene Martin, Trevion Manning, Simone McCulloch, Deanna Hunter  Sadie Dixon	Meeting with Stakeholder agencies to secure buy-in	Training in proposal writing and fund raising; Legalize GRWMC	Sign MOU;  Financial management training for GRWMC	Training of agencies and Committee in Organizational Development Evaluation	Evaluation of training and awareness activities	Total agency buy-in, organized pro-active community groups with feedback mechanism in place

## Next Steps

1. GRWMC executive will refine the strategic action results into a work plan and present to this at the next quarterly meeting of the committee.
2. The GRWMC will take immediate actions to prepare itself for sustainability including pursuing legal registration and maneuver to undertake fundraising activities.
3. Barrington Taylor was elected to coordinate all the three groups. The group leaders were as follows;
  - ✍ Inst. Arrangements – B. Taylor
  - ✍ Finance, Promotion and Awareness – Ivel Mclean
  - ✍ Training and Capacity Building – Trevion Manning
4. The leaders of the above groups will meet in their respective teams before the next GRWMC quarterly meeting on April 29<sup>th</sup> to refine their strategies and make a presentation at the April 29<sup>th</sup> meeting.
5. Suggested that one overall MOU be developed with all the key agencies.

## Solid Waste Seminar in Montego Bay – Agenda

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<b>DAY ONE</b>	<b>April 22, 2004</b>
<b>9:00-9:30</b>	<b>Registration (Beverages and snacks available)</b>
<b>9:30-9:40</b>	<b>Welcome and Introduction</b>
	<b>Chairperson:</b> Mr. Winston Dear, President, Montego Bay Chamber of Commerce
<b>9:40-9:45</b>	<b>Prayer</b>
	Bishop Charles Dufour, Catholic Church, Diocese of Montego Bay
<b>9:45-9:55</b>	<b>Greetings</b>
	Mrs. Karen McDonald-Gayle, Project Management Specialist Environmental Program, USAID
	Mr. Mark Nolan, Chief of Party, Ridge to Reef Watershed Project
	Mr. Don Streete, Chairman, Great River Watershed Management Committee
<b>9:55-10:00</b>	<b>Opening of Seminar</b>
	Councillor Noel Donaldson, Mayor of Montego Bay
<b>10:00-10:20</b>	<b>State of the Bay</b>
	Mr. Dillard Knight, Manager – Environmental Monitoring and Assessment, National Environment & Planning Agency
	Mr. Andrew Ross, Science Officer, Montego Bay Marine Park
<b>PRESENTATIONS AND PANEL DISCUSSION: <i>Policy Versus Reality and the Way Forward</i></b>	
<b>Moderator</b>	Ms. Kerry Mason, Legal Officer, Company Secretary, National Solid Waste Management Authority
<b>10:20-10:35</b>	<b>Policy Framework</b>
	Ms. Ianthe Smith, Environmental Engineering Consultant
<b>10:35-10:55</b>	<b>Urban Situation</b>
	Mr. Desmond Clarke, Chief Public Health Inspector, St. James Health Department
	Mr. O. Dave Allen, Chairman, COMAND
<b>10:55-11:10</b>	<b>Rural Situation</b>

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Great River Watershed Management Committee Sanitation Task force:

Mr. Jason Excell, Water and Sanitation Engineer, Ridge to Reef Watershed Project

Ms. Heather McFarlane, Community Outreach Officer, Montego Bay Marine Park

**11:10-11:30 DISCUSSION**

**11:30-11:50 Private Sector**

Mr. Winston Dear, President, Montego Bay Chamber of Commerce

Ms. Arlene Lawrence, Jamaica Hotel and Tourism Association

**11:50-12:20 Service Delivery**

Mr. Percival Stewart, Regional Operations Manager, Western Parks and Markets

Mr. O'Neill Gordon-Smith, Administrative Manager, Garbage Disposal and Sanitation Systems Ltd.

**12:20-12:35 Flood Prevention**

Ms. Joe-Ella Joseph-Mitchell, Research Analyst, Office of Disaster Preparedness and Emergency Management

**12:35-12:50 GAP ANALYSIS**

Ms. Ianthe Smith, Environmental Engineering Consultant

**12:50-1:10 DISCUSSION**

**1:10-2:10 LUNCH & Video: *Wah Yuh Dash Wey Nuh Wash Wey***

**2:10-4:00 Working Groups**

**Moderator** Shona Heron, Human Resources Consultant

## **DAY TWO April 23, 2004**

**8:30-12:00 BREAKOUT GROUPS**

**Moderator** Ms. Shona Heron, Human Resources Consultant

**Group 1** Awareness and Outreach

**Facilitator** Ms. Janet Bedasse, Anchor Project Manager, Ridge to Reef Watershed Project

**Group 2** Partnership for Management Systems - Urban, Rural

**Facilitator** Ms. Sonja Harris, Participation, Public Awareness and Public Relations Specialist, Ridge to Reef Watershed Project

**Group 3** Incentives for Solid Waste Management

**Facilitator** Mr. O'Neill Gordon-Smith, Administrative Manager, Garbage Disposal and Sanitation Systems Ltd.

**Group 4** Enforcement

**Facilitator** Ms. Thera Edwards, Manager, Sustainable Watershed Branch, National Environment & Planning Agency

**12:00-1:00** **LUNCH**

**1:00-1:40** **Finalize Presentations**

**1:40-2:20** **Plenary Session**

Ms. Shona Heron, Human Resources Consultant

**2:20-3:00** **Wrap up**

Ms. Lanthe Smith, Environmental Engineering Consultant

## Water Quality of the Great River Watershed, St. James/Hanover/Westmoreland

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#### Acronyms

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  - 6.1 Sampling Methodologies and Great River Bay Conditions during Sampling
  - 6.2 Marine and Estuarine Data Presentations
  - 6.3 Data Quality
  - 6.4 Water Quality Standards
  - 6.5 Discussion of Marine and Estuarine Data
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    - 6.5.2 Ammonium
    - 6.5.3 Total Oxidises Nitrogen.
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    - 6.5.5 The Nitrogen – Phosphorus Balance
    - 6.5.6 Silica
    - 6.5.7 Total Suspended Solids

6.5.8 Faecal Coliforms.

**7. Conclusions**

**8. Recommendations**

**Appendices**

Appendix I	River Flow Data
Appendix II	Analytical Methods
Appendix III	Data Quality
Appendix IV	References



## 1. Scope of Report

This report presents the data generated from the titled study and interprets those data to the extent of the following stated aims of the study:

- i) Quantify, with respect to the selected parameters the quality of the water in the Great River and the coastal area at its mouth,
- ii) Illustrate, through the data generated, how the water quality varies along the river and thereby identify possible point and non-point sources of contaminants to the river,
- iii) Quantify the impact of the river on the coastal waters in the area of the river's mouth,
- iv) Recommend, after monitoring at the selected sampling sites for twelve months, a long term water quality monitoring programme for the watershed.

A stated fifth aim of the study was

- v) To compare the water qualities of the Great River and the Rio Bueno, St Ann/Trelawny and thereby assess the impacts of the extent of differing land-use practices on these two rivers which have similar origins.

This aim will not be addressed in this report but will be considered in the Masters of Philosophy thesis which Miss Kayan Campbell will be producing. Within that thesis she will also give a fuller interpretation of all data generated within the study. It is anticipated that the thesis will be available in the last quarter of 2004.

## 2. Introduction

The study was developed after a geographical, geological and sociological description of the watershed had been completed (Hayman, 2001) and began in February/March 2002 with two field trips to select the study sampling sites and to generate some initial data. Regular sampling began in April 2002 and ended in July 2003. A total of thirteen sampling exercises were conducted.

The sites and dates of sampling are detailed in the data tables that follow. The sites are shown on the map of the watershed (Figure 1).

The data have been considered in three parts. Initially the sampling methodologies and the conditions that prevailed at the times of sampling are presented. The river site data are then illustrated and finally the impact of the river on Great River Bay assessed. Technical details are available through appendices.

The report ends with a summary of the conclusions reached and some recommendations for actions within the watershed which could lead to improved water quality.

## 7. Conclusions

- a) The study was conducted during mainly medium to high river flow conditions although samples were not collected during the significant flood events.
- b) The river flow was minimal in the upper reaches of the river and only started to become significant at Hazylymph.

- c) Because of the minimal river flow in the upper reaches of the river any contamination in those areas would have minimal effect on down river sites.
- d) The major chemistry of the river was determined by the limestone geology with minor exceptions at Chesterfield and Quashies River.
- e) The suspended sediment load was seldom significantly elevated.
- f) The major contamination problem was from faecal matter and this occurred throughout the watershed.
- g) Nutrient concentrations were not significantly elevated at any site.
- h) Phosphorus concentrations tended to be particularly low and limited the extent of aquatic plant growth, especially at Stonehenge and Seven Rivers.
- i) The phosphorus limitation to aquatic plant growth allowed for nitrogen concentrations to build up to marginally elevated levels at most sites except at Quashies River where nitrogen and phosphorus seemed to be in balance with aquatic plant demands.
- j) There was no detectable pesticide contamination in the watershed.
- k) The river plume flowed north from the river mouth and was generally detectable in the surface waters in middle of the bay but only reached Harris Point under heavier river flow conditions, carrying its sediment load with it. The fresh water seldom penetrated to depths greater than 1 meter.
- l) The Unity Hall area seemed to be a source of phosphorus and possibly ammonium to the river and its initial estuary.
- m) Under the conditions that prevailed during the study the nutrients in the river had minimal impact on Great River Bay, most simply being diluted as they reach the marine waters although there was a suggestion of slightly elevated nitrogen in the bay.
- n) Faecal coliform contamination was detected in the bay waters on six of the eleven occasions when that parameter was analyzed for. On two occasions faecal coliforms were detectable in the fully marine waters.

## **8. Recommendations**

- a) The faecal coliform contamination in the watershed and Great River Bay needs to be addressed as it was consistently at the level considered to be threatening to human health. This will require improving sanitation conditions throughout the watershed and to restricting animal farming activities from the banks (50 – 100m) of the river.
- b) Although nutrient concentrations were not significantly elevated efforts should be made to limit any further nitrogen contamination. This would be predominantly achieved through recommendation a) and ensuring that farmers throughout the watershed use best fertilizer application practices.
- c) Every effort should be made to avoid phosphorus contamination as photosynthesis will be enhanced if such contamination occurs. This should be achieved through adopting recommendation b).

- d) The river site that showed both faecal and nutrient contamination was Chesterfield. Within the vicinity of the sampling site were a chicken farm, fruit farms and a small community with pit toilets (one within 10 meters of the river). This community could be targeted for implementing best practices as a pilot study. Replacing the pit toilet (and others) with an appropriate alternative, restricting farming activities from the banks of the river and having farmers implement best agricultural practices could be undertaken. To illustrate the effects of these practices on river water quality the water will need to be monitored prior to and during the implementations. To my knowledge there is no Jamaican case study that clearly demonstrates that implementing these best practices actually leads to improved water quality. If it can be shown that it does then marketing the use of best practices should be easier.
- e) Another possible demonstration site could be Unity Hall where there is a small residential community involved in a wide variety of activities (fishing, goat, cattle and pig farming, crop growing, boat building, amongst others). This is within the estuary of the river and in addition to the ubiquitous coliform contamination there is evidence of nutrient contamination which could well be affecting the aquatic life of the estuary and the coastal waters.
- f) A long term water quality monitoring programme should be implemented and managed by a local interest group (The Great River Water and Sanitation Task Force or an NGO or similar body). This should follow the proposed National Water Quality Monitoring Programme and could serve as a pilot for that programme. The sites for monitoring should be Chesterfield (because of the contamination observed there), Lethe (because of the recreational activities) and Unity Hall (because of the potential impact to the river on the estuary and coastal ecosystems). Flow monitoring gauges should be established at each site. Parameters to be determined should include faecal coliforms, total suspended solids, conductivity, ammonium, soluble reactive phosphorus and oxidised nitrogen. A biological monitoring programme should also be considered. Water quality monitoring should be at least monthly and strategies need to be put in place to allow for sampling during high flow conditions. The NWC should be encouraged to share any data they generate from their Stonehenge and Unity Hall extractions. Community persons should be identified and trained in observing water quality and in water sampling methods. Collected samples should be sent to approved laboratories that can supply the necessary sampling equipment and report directly to the managing body. An independent water quality expert should be contracted to monitor the programme and to prepare annual reports on the data.

## Green Village Award Ceremony – Agenda

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8.40 am	Arrival of USAID Director and party at Sangsters International Airport
8.45 - 11.45 am	<p><b>Tour of Select points of interest in St. James:</b></p> <p>St. Mary Anglican Church (former slave hospital) - Tour guide – Reverend Ottey, supported by Marline Stephenson. Discussion on Sam Sharpe led Rebellion.</p> <p>Chukka Blue- modified safari jeep tour through Montpelier Citrus Grove to Waterfall</p> <p>Tour ends at Bluehole on the way to Bluehole Nature Park</p>
12 noon	<p><b>Ceremony Begins</b></p> <p>Moderator – Mr. Don Streete, National Water Commission and Chair of the GRWMC</p> <p>Welcome and Introductions - Don Streete</p> <p>Opening prayer – Rev. Ottey</p>
12.15 pm	Greetings from Member of Parliament Derrick Kellier (representative for constituencies in Great River Watershed)
12.20 pm	Background on the Green Village Award program – Lisa Golding - Chair of the Public Awareness Task Force - Great River Watershed
12.30 pm	Introduction of Guest Speaker - Don Streete
12.35 – 12.45 pm	Presentation by USAID Mission Director, Karen Turner
12.45 pm	Citation to participating and award winning communities – Sadie Dixon-Rural Agricultural Development Agency
1.00 pm	Presentation of certificates, and prizes-Gold, Silver and Bronze cash awards – Howard Batson-SO2 Team Leader, USAID
1.15 pm	<b>Cultural item – Action Boyz</b>
1.30 pm	Vote of Thanks - community representative
<b>1.35 – 2.30 pm</b>	<b>LUNCH</b>
2.15 pm	Departure of USAID Mission Director and her party
<b>NB</b>	There will be a display table with R2RW brochures and posters. “It haffi legal” musical CD will be played in the background at times, and the video will be played during lunch.

## Enviro Kit Contents

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### Participating Organizations

- ✍ National Environment and Planning Agency (NEPA)
- ✍ USAID
- ✍ Ridge to Reef Watershed Project (R2RW)
- ✍ Forestry Department
- ✍ Birdlife Jamaica
- ✍ Coastal Water Quality Improvement Project (CWIP)
- ✍ Jamaica Environment Trust
- ✍ National Water Commission
- ✍ Jamaica Conservation Development Trust (JCDDT)
- ✍ Friends of the Sea
- ✍ Water Resources Authority (WRA)
- ✍ National Solid Waste Management Authority (NSWMA)

### Contents

#### *Flyers*

Criteria #1 – How to Establish an Environmental Watch Group in Your Community  
Trees are Our Friends

#### *Books/Short Story*

- ✍ Tree Planting for Schools
- ✍ Organic Gardening for Schools
- ✍ The Birds of Jamaica “A Celebration”
- ✍ Rimona and the River Babies – A Short Story for Primary Age Students
- ✍ The Tropical Farmers Almanac

#### *Booklets/Handouts*

- ✍ How to Grow Pineapple in Jamaica
- ✍ “A Fi Wi Treasures” Environmental Fun Page
- ✍ Caring for Trees Once Planted
- ✍ Selection and Field Establishment for Fruit Trees – Hand Book
- ✍ Earth Facts
- ✍ Sow Your Own Tree Seedling
- ✍ Water: Protect and Conserve
- ✍ Help Us Protect Our Water Supply
- ✍ What is a Watershed?
- ✍ Lessening the Use of Agri-Chemicals in Watershed Areas
- ✍ Composting

#### *Sticker*

Forests Forever

## **Button**

Clean Your Mind, Land, Rivers

## **Brochures**

### Protecting Our Environment

- ✍ Things You Should Know About Garbage
- ✍ Do's and Don'ts: Watershed Management Tips for Farmers
- ✍ Friends of the Sea – Be a River Ranger
- ✍ Farm Forestry
- ✍ Urban and Community Forests and Tree Planting
- ✍ Forest Values
- ✍ What is a Forest?
- ✍ Forestry Department – Who are We? And What Do We Do?
- ✍ Forest Reserves and Forest Management Area of Jamaica
- ✍ Water Resources – Questions and Answers for Juniors
- ✍ Farm Forestry – Trees for a Greener Future
- ✍ 100 Ways to Watch Your Waste

## **Posters**

- ✍ Composting – What is Composting?
- ✍ Wood you believe! We get so much from trees!
- ✍ About Watersheds
- ✍ Bush Fires
- ✍ Charcoal Burning Problems and Solutions
- ✍ Some Practices that Lead to Deforestation
- ✍ Deforestation – What is it?
- ✍ Some Environmental Impacts of Deforestation
- ✍ Composting – An Easy Way to Recycle
- ✍ Twelve Reasons – Why We Should Protect Trees
- ✍ Some Environmentally Friendly Farming Practices
- ✍ Endemic Jamaican Birds
- ✍ Trees: Providers and Protectors
- ✍ Forest Forever Calendar
- ✍ A Walk with Nature (Comic Strip)
- ✍ Environmental and Planning Calendars
- ✍ Reduce Your Waste!!
- ✍ A Clean Environment – It's Your Decision
- ✍ Your Community Skip...
- ✍ Hi, My Name is Sammy Garbage!
- ✍ It Nuh Right! – Don't wash vehicles in our rivers or streams!
- ✍ It Nuh Right! – Don't wash your clothes in our rivers or streams!
- ✍ It Nuh Legal! – Don't remove sand, stone or marl without a license!
- ✍ It Nuh Legal! – Don't pollute our water sources with improper disposal of human excreta!
- ✍ It Nuh Legal! – Don't let fires burn out of control when you clear your land!
- ✍ It Nuh Legal! – Don't throw garbage in gullies, rivers or streams!
- ✍ It Nuh Legal! – Don't throw your garbage on our roads!
- ✍ It Nuh Legal! – Don't destroy the wire that holds these stones together!
- ✍ It Nuh Legal! – Don't build without approval from your Parish Council!
- ✍ It Nuh Legal! – Don't wash your spray can in our rivers or streams!
- ✍ It Nuh Clean! – Don't keep animals near our rivers or streams!
- ✍ It Nuh Legal! – Don't catch, kill, keep or sell any of these animals!
- ✍ It Nuh Legal! – Don't catch, kill, keep or sell any Jamaican bird!

✍ Everything you need to let people know about sustainable environmental management!

## Findings of Rio Grande Watershed First Phase Out Workshop

Component	Launch Activity	April – June	July – September	October - December	January - March	Victory Complete
Identify needs and institute training programs 4 votes	Identify existing needs through assessment in designated community	Determine data and training needs of participants  Complete and submit training proposal and budget	Sensitize participants and implement training  Continue training including proposal writing and fund raising	Evaluation workshop	Communities implementing sub-projects	Increased compliance and enforcement at the community level
Establish a finance committee to secure funding locally, regionally, and internationally (from government and non-government entities)  7 votes	Establish a finance sub-working group of RGWMC	Identify key members to sit on committee  Identify and develop activities and action list to raise funds  Identify training needs of committee	Establish a trust fund  Set up accounting system including accounting software	Design project activities to raise funds from donors e.g. EFJ  Establish business ventures where products of RGWMC can be sold e.g. craft, hiking	Determine business services RGWMC can deliver e.g. MBMP  Stage fund raising events e.g. watershed festival, environmental fair.	Income generating activities in place
Streamline all administrative functions  4 votes	Hold meetings with stakeholder agencies	Identify lead agency to assume and coordinate specific tasks  Coordinate special meetings with all stakeholders	Strengthen RGWMC  Renew commitment of stakeholders through MOUs	Develop rules, regulations and procedures – by-laws , hand book, etc for operation of trust fund and management committee	Execute official launch of “new” sustainable organization	Official turning-over of task forces and lead agencies



<b>Component</b>	<b>Launch Activity</b>	<b>April – June</b>	<b>July – September</b>	<b>October - December</b>	<b>January - March</b>	<b>Victory Complete</b>
Rationalize organizational structure of the RGWMC/LWMC  6 votes	Signing of MOU between stakeholders and PDC	Series of stakeholder sensitizations  Select executive members for committee	Executive committee to develop action plan  Advertise and employ administrative personnel	Review and analyze achievements of previous quarter	Formulate plans for next project year	A functioning sustainable organization

## Proposal for Public Awareness in the Lower Rio Grande Valley

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<b>Project Title</b>	PPDC/R2RW Public Awareness Programme for Lower Rio Grande Watershed Communities.
<b>Date</b>	December 2003
<b>Proposer</b>	Portland Parish Development Committee Village of St. George Shop # 29 2-4 Fort George Street Port Antonio P.O. Portland  Tel: 715-5465 Fax: 993-3188 Email: <a href="mailto:portlandtpdc@hotmail.com">portlandtpdc@hotmail.com</a>
<b>Contacts</b>	Mrs. Sybil Rendle Chairperson
<b>Financers</b>	Ridge to Reef Watershed Project 5 Oxford Park Avenue Kingston 5  Tel: 754-7598 or 906-2268 Fax: 754-3913 Email: <a href="mailto:ard@cwjamaica.com">ard@cwjamaica.com</a> Web: <a href="http://www.r2rw-jm.org">www.r2rw-jm.org</a>
<b>Contacts</b>	Mr. Mark Nolan Chief of Party  Ms. Sonja Harris Participation Public Awareness Public Relations Specialists

### Executive Summary

This project document is entitled PPDC/R2RW Public Awareness Programme for Lower Rio Grande Watershed Communities. The project seeks to promote environmental sustainability in the watershed by developing and implementing a Community Education and Public Awareness Programme geared at the promotion and adoption of practices and activities that will engender community stewardship of the environment through positive behavioral changes of stakeholders toward their natural resources and simultaneously improving the institutional capacity of community-based organizations (CBOs) - PPDC/DAC/CDC etc. to sustain environmental management programs.

The project is collapsed into five focal areas or objectives, namely:

**Environmental Stewardship:** geared at promoting environmentally friendly and sustainable economic activities and practices that will safe guard the watershed through a comprehensive targeted training, education and public awareness programe.

**Institutional Capacity Building of Key Partners and Communities:** improving institutional capacities of the PDC, DAC, CDCs and CBOs to contribute to sustainable watershed management practices by providing much needed equipment and human resource development support.

**Community Based Environmental Competition:** encouraging environmental sustainability through the provision of rewards and incentives for community-based beautification/greening activities through competitions;

**Funding Support for Community Based Environmentally Focused Activities within Project Area:** facilitating the Implementation of sub-projects that will improve community environmental awareness; and

**Building Strong Neighborhoods through Dialogue:** utilizing the “Study Circle Concept” to facilitate dialogue and community problem solving initiatives aimed at improving environmental sustainability through dialogue to positive action orientated programs.

Deliverables for the Project will include

The production and publication of a series of training manuals (tech packs, flyers, videos, CDs) on environmental issues: problems, constraints, and corrective actions and opportunities within the RGW.

Production and dissemination of information kit on the PPDC, R2RW, PPC, SDC, NEPA, PEPA and other participatory agencies in environmental sustainability in the parish and nationally;

Conduct one four-day workshop to train/retrain at least ten (10) community facilitators/animators for delivery of community-based training programs;

Conduct one three-day training workshop for at least three (3) community facilitators/animators and at least eight (8) collaborating agency personnel (SDC field officers, 1 from PDC and 2 others) in utilizing multimedia equipment, inclusive of digi-camcorder;

Employment of a Project Manager/Coordinator for the project;

Facilitate the development and Implementation of nine (9) community-based (i.e. one per CDC in the project area) solid waste management sub-projects;

Facilitate the development and implementation of at least one (1) environmental beautification/greening subproject per participating community in the project area;

Conduct 80 (20 x 4) training sessions, field visits and/or practical demonstration on environmental friendly practices and solutions and mitigating measures against environmental degradation in participating communities;

Minimum of four hundred (400 @ 20 x 20) local community-based personnel/residents trained in environmental stewardship;

PPDC/R2RW environmental skit and jingle finalized and utilized for advertisement on SATCOM or local cable network; and

Pilot “**Study Circle Group on Environmental Sustainability**” initiative developed implemented and utilized.

The final results will be the enhancement of environmental stewardship, improvement in CBOs (PPDC/CDC/DAC) capacity to influence and sustain environmental safe guard programs, increased participation and improved compliance within the project area.

The proposer for this project is the PPDC. A network made up of the proposer, associated agencies and R2RW will provide the necessary commitment and contribution to the project to ensure its success.

**Funding Requirements**

The project is estimated to cost **J\$5,106,460.00**, which will be apportioned as follows:

Agency	Amount (J\$)	Amount (US\$)	Percentage (%)
R2RW Indirect Funding from TA	457200.00	7620.00	8.95
R2RW Direct Funding	3292260.00	54871.00	64.47
Proposer Organization	663000.00	11050.00	12.98
Associated Agencies	694000.00	11566.67	13.59
<b>TOTAL REVENUE</b>	<b>5106460.00</b>	<b>85107.67</b>	<b>100.00</b>

**Project Duration:** The project is schedule to start in January 2004 and continue for eighteen months to June 2005.

## JCDT Project: A Public Awareness Program in the RGW

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### JCDT Proposal for a Community Education Program: A Public Awareness Program in the Rio Grande Watershed

#### Executive Summary

The Project proposed in this document is titled Community Education Program: A Public Awareness Program in the Rio Grande Watershed. The goal of the project is to develop and implement a Community Education Program for Sustainable Watershed Management in ten communities of the Rio Grande Watershed adjacent to the Blue and John Crow Mountains National Park. The Jamaica Conservation and Development Trust (JCDT) manages the National Park under delegation from the National Environment and Planning Agency (NEPA) and in collaboration with both NEPA and the Forestry Department. The upper Rio Grande Valley is an important buffer zone for the Park and is one of the administrative zones of the Park with a Ranger Station at Millbank. Education is a component of Park management, and the JCDT sees this project as a partnership with the Ridge to Reef Watershed Project (R2RW) that will enhance, and increase the sustainability of the work of both the National Park and R2RW.

The Project has been developed in close collaboration with the R2RW project team and JCDT staff have attended several of the meetings and workshops organized by R2RW. In addition, the JCDT is an active member of the Integrated Watershed Management Council and its Public Education Sub-Committee. The Project seeks to build on the R2RW activities by increasing “on-the-ground” or “field” activities in ten communities within the Rio Grande watershed.

The objectives of the Project are to:

- ✍ Engender Stewardship of natural resources by communities in the ten targeted districts
- ✍ Enhance understanding, compliance and enforcement of Environmental Laws in the area
- ✍ Promote practices for sustainable livelihoods
- ✍ Improve Millbank Park Ranger Station to enhance sustainability
- ✍ Document Lessons Learned to share with others

The activities to be implemented in order to achieve these objectives are described in detail in section 3.3 – Program Description and section 9.0 – Work Plan, and include:

- ✍ Community meetings and Training
- ✍ Facilitation of community organized events that promote sustainable watershed management practices e.g. tree planting
- ✍ Involvement of this corps of community resource persons/stewards in the Park’s watershed management activities e.g. water quality monitoring
- ✍ Identification of “trainee Rangers” who will be employed part-time in activities such as nursery establishment, reforestation and under-studying Park Rangers.

- ✍ Park Rangers patrol Forest Reserve/Park and disseminate public education materials
- ✍ Increased opportunities for community members to generate income through sale of craft through Holywell Gift Shop and marketing of eco-tourism in the area

Deliverables are listed in section 8.0 and include training of at least ten community resource persons and two “trainee” Rangers, dissemination of public education materials within the ten targeted communities, community persons benefiting from sustainable livelihood activities.

JCDT’s Executive Director, Mrs. Susan Otuokon will provide project oversight and the project will be coordinated by a contractor – Mrs. Linette Wilks. Mrs. Wilks and Park Rangers employed by the JCDT will implement the project activities. Monthly reports will be prepared and sent to R2RW and a consultant will be contracted to evaluate the project and document the lessons learned for sharing with others.

## Distribution of Pocket Guide on Environmental and Planning Laws of Jamaica

Name	First Set – June 2003		Proposed Distribution Second Set – Mar 2004	
	# of copies	Date issued	# of Copies	Date Issued
Charlene Easton/LSDP	3	July 1, 03		
JJ Bellamy	15 estimate	July 1, 03 & Aug 8, 03		
NEEC	1	July 1, 03	10	
Marva Moodie/ANRET	2	June 26, 03		
John Smith / ANRET	2	June 23, 03		
NEPA Directors (Tech)	8	June		
NEPA Managers	15	June		
Participants at Launch of Pocket Guide	15 estimate	June 5		
Legal Branch	6	June	20	
NRCA Board	10	July	10	
DOC Centre	2	July 3	5	
Pub Ed Branch	2	July 3	5	
ENACT Office	7	July 4		
Judicial Symposium (3)	70	July 10	150	
NEPA Officers	130	Aug 7, 03	50	
Bird shooting meeting participants	54	Aug 7, 03	60	
Director, Compliance & Regional Services	20	Aug 7, 03		
CEO' Office	20	Aug 19, 2003	10	
MLE	20		10	
Ridge to Reef	150 100	Aug 18, 2003 Sept 3, 2003	150	March 10, 2004
Compliance & Enforcement Training Programme	100	Aug 19, 2003	200	
CCAM	5	Aug 19, 2003		
ISCF	20	Aug 19, 2003	100	
JCED	20	Aug 19, 2003		
MAJ	5	Aug 19, 2003		
Fisheries Div	25	Aug 19, 2003	10	
Forestry Department	25	Aug 19, 2003	10	
MLE-Mines & Geology	10	Aug 19, 2003	10	
NSWMA	25	Aug 19, 2003	20	
NWA	14	Aug 19, 2003	20	
KSAC	10	Aug 19, 2003	10	

Name	First Set – June 2003		Proposed Distribution Second Set – Mar 2004	
	# of copies	Date issued	# of Copies	Date Issued
NEPT	4	Aug 19, 2003		
Portland Parish Council	4	Aug 19, 2003	5	
WRA	12	Aug 19, 2003		
Manchester Parish Council	2	Aug 19, 2003	5	
St. Ann's Parish Council	2	Aug 19, 2003	5	
St. Elizabeth Parish Council	2	Aug 19, 2003	5	
St. Thomas Parish Council	2	Aug 19, 2003	5	
St. Catherine Parish Council	2	Aug 19, 2003	5	
St. Mary Parish Council	2	Aug 19, 2003	5	
Trelawny Parish Council	2	Aug 19, 2003	5	
Clarendon Parish Council	2	Aug 19, 2003	5	
St. James Parish Council	2	Aug 19, 2003	5	
Westmoreland Parish Council	2	Aug 19, 2003	5	
Hanover Parish Council	2	Aug 19, 2003	5	
Portmore Municipal	4	Mar 4, 2004	5	
Others	12			
<b>Total</b>	<b>966</b>		<b>925</b>	



### Action Plan for Joint Compliance and Enforcement and Public Awareness Group, Portland, March 2004

Area	Participants	Launch Activity	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Victory Target
<b>Enforcement</b>	Basil Forsythe Woodrow Hartley Harold Robinson Alec Dehaney Caryl Grant Marva Smith-Moodie Mark Nolan Olive Aiken Carol Robinson	Convene meeting of enforcement agencies and community groups	Identify priority areas for enforcement: and plan and initiate visits to communities by enforcement teams	Evaluation of community visits and response  Monitor improvement methods by enforcement agencies	Analyze community feedback on Enforcement activities  On going evaluation	Measure improvements in compliance and priority enforcement areas  Host Reporting session and do final evaluations and recommendations	Increased voluntary compliance through effective enforcement
<b>Solid Waste Disposal</b>	Stephanise Adams Evan Grey Lorenzo Hill Lorenzo Hume Patrick Marshall Charles McKenzie Winston Palmer Andrew Roach Selvyn Thompson Linette Wilkes	Establish steering committee of all stakeholders	Identify resources necessary to improve Solid waste management Plan  Implement Public Education programs	Plan community clean-up program  Lobby for improved roads conditions to facilitate collection of refuse  Implement community cleanup activities	Conduct workshops training on practical SWM techniques  Reduce solid waste generation by recycling reusing and refusing	Train community wardens about environmental laws  Evaluate impact of program  Enforce through wardens	Improved solid waste management systems that are environmentally friendly

Area	Participants	Launch Activity	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Victory Target
<b>Land Use A</b>	Moshe Simpson Danny Simpson Dawn Whyte Cyril Chambers	Community Awareness meeting to sensitize people in area	Establish an on-going public awareness program  NEPA to carry out research on the status of the squatters survey and policy	Improving interagency cooperation and collaboration  Train farmers to adopt proper land husbandry	Identify FIDCO freehold lands which influence tenure policy  Implement a demonstration project on alley cropping	Expand alley cropping and agroforestry techniques  Implement crop and dwelling zoning to minimize degeneration  Monitoring committee established	Monitoring Committee Established
<b>Land Use B</b>	Ralph Falloon Polly Perry Sinclair Barrant Maislyn Campbell Hugh Cressor Syble Rendle Wallace Sterling	Launch best practices Land Use Day	Hold community meetings to elicit development ideas  Document project coming out  Identify indigenous resources	Develop and implement community education programs	Identify indigenous raw materials and human resources  Implement one significant project e.g. paper making from banana leaves	Start project on  Source sustainable markets for products  Implement penalties and rewards program to ensure support and enforcement by relevant agencies	Have Portland designated as a Sustainable zone

**R2RW/SWB Team Meeting**  
December 19<sup>th</sup>, 2003, 10:00 am – 2:00 pm  
Legumes Club

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**Agenda**

Welcome and Introduction  
Purpose of Meeting

**Overview of R2RW Status (Mark)**

R2RW Fourth Annual Work Plan  
Internal Review results

**Component 1A – Sustainable Environmental Practices – Great River**

Income Generation Projects, Hugh  
W&S Grants, Jason  
Water Quality Monitoring, Jason  
Great River Green Village Program, Sonja  
River Action with the Action Boyz, Sonja

**Component 1B – Sustainable Environmental Practices – Rio Grande**

Agro forestry Initiatives, Joe  
Special Studies, Hugh  
W&S Interventions, Jason  
Community Education Programs, Sonja

**Component 2 – Enhanced Compliance and Enforcement**

Popular C&E Materials: Posters, videos, pocket guide, calendar, Trevor  
C&E Training Initiative, Trevor

**Component 3 – Institutional Strengthening**

LWMC Development in the GRW and RGW, Leo  
Training plans, Leo  
LWMC Networking, Mark  
Watershed Policy, Trevor  
Activities with the NIWMC, Mark

**AOB**

Report Writing  
Grants Program  
Special Studies

## SWB Retreat – November 2003

Starlight Chalet, Silver Hill Gap, Blue Mountains  
November 28 – 29, 2003

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### Purpose

The Workshop will involve participants in:

- ✍ Reviewing the achievements/current status of the Branch;
- ✍ Examining how the members of the Branch accept/understand their corporate role in the wider NEPA's Family; and
- ✍ Confirming the long-term vision/understanding and commitment to the Branch, NEPA and Watershed Management.

### Background

The SWB of NEPA was re-established during 2001 under a new Manager, and in the context of a new organizational structure. The R2RW Project has been working with the Branch to strengthen its capacity. The activities to date include:

- ✍ A Team Building exercise undertaken in 2001, to establish the level of team spirit existing among members of the staff, and the commitment to the objectives of NEPA, and to assist the Team to examine concerns and to find solutions for those concerns;
- ✍ A Team Meeting held on December 20, 2002 to review accomplishments; and
- ✍ A Branch Retreat on January 24 -25, 2003 that:
  - Reviewed the earlier Team Building exercise (held in November 2001) in order to determine what has been achieved since then, and the challenges faced;
  - Confirmed where the SWB was at that point;
  - Developed consensus on a "Vision" for the Branch;
  - Defined what needed to be done in the short-term to achieve that vision; and
  - Defined an action agenda and commitments to realize the agreed strategic directions.

### Methodology

The Methodology to be used for the 2003 Retreat is expected to have the following components:

- ✍ Brainstorming to develop a Balance Sheet for reviewing the achievements/current status of the Branch;

- ✍ Presentation and Discussion that examines how the members of the Branch accept/understand their corporate role in the wider NEPA's Family;
- ✍ Workshop to develop Personal and Branch Charters that confirm the long-term vision/understanding and commitment of the Branch to NEPA and Watershed Management; and
- ✍ Reflections and Next Steps

**Presentation and Discussion that examines how the members of the Branch accept/understand their corporate role in the wider NEPA's Family**

A presentation will be made by a member of NEPA on the organization structure, and mandate of NEPA. Specific attention will be given to the role and mandate of the SWB, and how activities are/should be funded.

Participants will then ask general questions for clarification etc. Then participants will work in small groups to review the presentation/s.

The groups will then report to plenary.

**Reviewing the achievements/current status of the Branch**

The Retreat is expected to develop a Balance Sheet indicating Achievements and Shortfalls of the Branch for the year under review. The targets set for the Branch will be listed, and members will brainstorm to put these in the Achievements or Shortfalls column and will indicate why.

**Workshop to develop Personal and Branch Charters that confirm the long-term vision/understanding and commitment of the Branch to NEPA and Watershed Management**

Participants will use Worksheet I (to be developed) to develop their own Personal Charter that indicates their understandings of their role in the Branch, and in NEPA, and their personal vision and commitment.

Participants will then meet in small groups that will assist in consolidating their thinking.

Then the Personal Charters will be presented to the full group. Attempts will then be made to develop a Branch Charter

Reflection/general discussions will follow.

**Next Steps**

This would be followed by a summary session of the day's activities, identification of and commitment to the next steps, and announcements and wrap-up by the Branch Manager.

## **SWB RETREAT**

Starlight Chalet, Silver Hill Gap, Blue Mountains  
November 28 – 29, 2003

### **AGENDA**

#### **FIRST DAY**

- 10: 00 – 10: 30 am      **Arrivals**
- 10: 30 – 11: 00 am      **Preliminaries** (Prayers, Introductions, Purpose, Expectations)
- 11: 00 am – 1: 00 pm    **Session 1** - Role of the Branch in NEPA: Presentations and Discussions
- 1: 00 – 2: 00 pm        **LUNCH**
- 2: 00 – 3: 30 pm        **Session 2** -- Building a Balance Sheet
- 3: 30 – 4: 00 pm        **BREAK**
- 4: 00 – 6: 00 pm        **Session 3** - Workshop – Building of Personal and Branch Charters

#### **SECOND DAY**

**Reflections**

**Next Steps**

**Announcements**

**Nature Walks**

## BRANCH CHARTER

### Sustainable Watershed Branch (SWB) of NEPA

We being Members of the Sustainable Watershed Branch (SWB) of NEPA hereby indicate our commitment to work diligently to advance the work of the Branch.

Listed below are components of our Branch Charter:

**Our Vision** for the Branch is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Our Motto** for the Branch is \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

We consider our **five** most important **roles/responsibilities** in the Branch to be:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

We consider the areas checked by us below to be important to assist our Branch in fulfilling its **mandate**:

- ? We are committed Team Players, willing to share our knowledge and experiences with others;
- ? We are open to learning new ideas and ways of doing things differently;
- ? We are supportive of the leadership of our Branch;
- ? We are supportive of the mandate of our Division and the Organization as a whole;
- ? We are committed to formally and informally upgrading our skills;
- ? We are committed to efficiently undertaking all duties assigned to us in a timely way;
- ? We are committed to attending work and special functions regularly and punctually;
- ? We are committed to fulfill all reporting requirements on time;

? We will fulfill all other assignments given to us to the best of our ability;

(Other – Please add)

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We consider the following **statement to be a part of our Branch Charter:**  
**We affix our signature below to confirm our full endorsement of this Charter**

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Date \_\_\_\_\_



## Watershed Policy – Final Draft November 2003

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### Executive Summary

Concern over many decades about the increasing degradation of Jamaica's watersheds led, over time, to a series of interventions aimed at mitigating and preventing the environmental and human factors which impact negatively on watershed areas. These interventions were, for the most, part project-based. They were undertaken mainly through bilateral and multilateral assistance and had varying degrees of success. Activities under many projects as well as watershed management actions taken by Government were often *ad hoc* and unrelated as there was no unifying set of principles to provide guidance, to ensure a coherent approach to watershed management or to set priorities for action.

The Government of Jamaica seeks to articulate a coherent policy on watershed management in Jamaica and to set out the principles that should guide decision-making by agencies having functions in relation to watersheds. The Policy builds on the already agreed National Integrated Watershed Management Programmatic Framework and supports the continuing efforts to define and clarify roles, responsibilities, programmes and actions.

An important feature of the policy-making process was the level of public participation. The Draft Policy was made available to the public for comment and Officers of the then NRCA had extensive consultations all over the Island. In 1999 the Draft document entitled "*Towards a Watershed Policy for Jamaica*" was tabled in Parliament as Green Paper No. 2/99 and was subsequently amended following further public input. For various reasons, the finalization of the document was delayed. NEPA, with the assistance of the Ridge to Reef Watershed Project facilitated further refinement of the document for approval by Cabinet.

The Policy is divided into 3 sections:

- ✍ Section 1 provides a context for the Policy, giving by way of Background, a brief description of the physical location of Jamaica's watersheds, and provides a concise overview of past efforts at watershed management in Jamaica.
- ✍ Section 2 sets out the Current Situation. This includes:
  - ✍ Presenting a synopsis of watershed condition and problems;
  - ✍ Highlighting the causes and effects of degradation;
  - ✍ Setting out the International Conventions and other instruments which influence Watershed Policy nationally and internationally;
  - ✍ Giving an overview of the prevailing domestic legislative, institutional and policy frameworks within which watersheds in Jamaica are managed;
  - ✍ The work of key significant watersheds management projects are also highlighted in this Section; and
  - ✍ The Section ends with a summary of the issues and concerns that the Policy seeks to address. These include governance (legislative and institutional frameworks; human,

technical, and financial resources requirements, as well as public awareness, and land use capabilities

- ✍ In Section 3, Government's vision, policy goals and objectives are set out; the principles that guide the policies and proposed strategies and actions are enunciated; and the mandates of various entities are identified in so far as they affect watersheds management.

The specific Policy Goals are summarized as follows:

- Goal 1:** A coherent and rationalized legislative and institutional framework for the integrated Management of watersheds on a sustainable basis is put in place.
- Goal 2:** Provision and development of adequate human resources for effective Watershed Management
- Goal 3:** Adequate financing for watershed management is secured.
- Goal 4:** Availability of improved technical capacity for effective watershed management
- Goal 5:** Increased public awareness for improved participation in watershed management
- Goal 6:** Initiatives to encourage proper Land Use supported

A Plan for the Implementation of the Strategies is included in this Policy Document as and Appendix.

The Policy is intended to guide all watershed management activities and legislative initiatives carried out over the next five years by Government Departments and Agencies, Private Sector interests and Donor Agencies. It will be monitored and adjusted as necessary to ensure relevance and usefulness as a management tool. NEPA will exercise this monitoring function.

While maintaining its overall co-ordinating function, NEPA will seek to facilitate the management of watersheds by establishing linkages and partnerships with other Central Government agencies, the Parish Councils, NGOs and the Private Sector.

The Policy sets out the functions and responsibilities of the following principal agencies involved in watershed management:

- ✍ National Environment and Planning Agency (NEPA): (Policy; Regulatory)
- ✍ National Integrated Watershed Management Council: (Co-ordination)
- ✍ Ministry of Agriculture: (Regulatory; Research)
- ✍ Forestry Department: (Regulatory; Management)
- ✍ Rural Agriculture Development Authority (RADA): (Technical Assistance, Extension, Advisory, Research)
- ✍ Water Resources Authority: (Regulatory, Management, Advisory)
- ✍ National Land Agency: (Custodial)
- ✍ National Water Commission: (Custodial)
- ✍ National Works Agency (Technical Assistance, Advisory)
- ✍ Civil Society Groups
- ✍ Local Authorities
- ✍ Island Constabulary Force

## Progress on Watershed Policy Finalization

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### Memorandum

**To:** Trevor Spence - Governance & Natural Resources Specialist, R2RW

**From:** Thera Edwards - Manager, Sustainable Watersheds Branch

**Cc:** Mark Nolan – Chief of Party, R2RW

**Re:** **Watershed Policy**

**Date:** February 24, 2004

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This memo confirms the follow actions upon receipt of the final revised draft watershed policy to be as follows:

- ✍ Delivery of hardcopy of final draft to Franklin McDonald - CEO
- ✍ Delivery of hardcopy of final draft to Winsome Townsend – Director, Policies, Programs and Projects Coordination Division
- ✍ Delivery of digital copy of final draft to Meegan Scott – Corporate Planner, Policies, Programs and Projects Coordination Division
- ✍ Delivery of digital copy of final draft to Carole Excell – Senior Legal Officer, Legal and Regulatory Services Division
- ✍ Delivery of hardcopy of final draft to Peter Myers, Cabinet office
- ✍ Delivery of hardcopy of final draft to National Integrated Watershed Management Council members including Mrs. Jacqueline DaCosta, Chair of the Council and Permanent Secretary, Ministry of Land & Environment
- ✍ Delivery of hardcopy of final draft to Natural Resources Conservation Authority who serve as the de facto Watersheds Protection Commission
- ✍ Digital copy provided for inclusion with documents compiled for Judicial Symposia CD

Please note also:

- ✍ Donna Blake of the Ministry of Land & Environment has indicated that she has prepared a draft of the Minister's message

## Strategic Actions for the Revision of the Watershed Protection Act

<b>Strategic Direction No. 1</b>	<b>Legal Steps and Process</b>
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Objectives: Development of a Watershed Protection Act

<p><b>Key Activities:</b></p> <ol style="list-style-type: none"> <li>1. Finalize watershed policy (ownership of forested crown land)</li> <li>2. Conduct RIAS</li> <li>3. Form Working group: legal and tech</li> <li>4. Conduct literature review of all relevant documentation: policies, legislation from other countries</li> <li>5. Review and identify overlaps and gaps in existing related acts and REGS</li> <li>6. Discuss jurisdictional issues and amendment to pertinent legislation</li> <li>7. Develop time line for completion of Act and REGS</li> <li>8. Develop Drafting instructions for CPC</li> <li>9. Hire consultants to create REGS</li> <li>10. Host dialogue on drafting instructions with small working groups</li> </ol> <p><b>Technical Assistance</b></p> <ul style="list-style-type: none"> <li>✍ Consultant - RIAS</li> <li>✍ Facilitators for workshops and drafting instructions</li> <li>✍ Consultant – REGS drafting instructions</li> </ul>	<p><b>Roles and Responsibilities:</b></p> <ul style="list-style-type: none"> <li>👤 NEPA and MLE</li> <li>👤 NEPA, R2RW, MOA, FD, WRA, NWC, NIC, MLE</li> <li>👤 NEPA, FD, MOA, NIWMC, NWC, AG, MWH, MLE &amp; CPC</li> </ul> <p><b>Team Members</b></p> <p>Marilyn Headley; Joy Crawford; Carole Excell; Anna Gracie; Rainee Oliphant</p>
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<b>Strategic Direction No. 2</b>	<b>Priority Action Funding of Watershed Policy</b>
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**Objectives:**

To develop appropriate financial mechanisms/both voluntary and legislative to provide funding

<p><b><u>Key Activities:</u></b></p> <ol style="list-style-type: none"> <li>1. Negotiate extension on R2RW Project to provide support.</li> <li>2. Prepare a cabinet submission for 2003 – 2004 budget for the NIWMC management and water.</li> <li>3. Development of a corporate environmental fund administered by the NIWMC or those entities appointed by the NIWMC.</li> <li>4. Identify current (if present) rehabilitation projects that are not being funded but that offer economic value for corporate entities to encourage investment.</li> <li>5. Negotiate funding for drafting of the watershed Act and regulations in a timely manner.</li> <li>6. Development of a corporate environmental fund administered by the NIWMC or those entities appointed by the NIWMC.</li> </ol> <p><b>Technical Assistance</b></p> <ul style="list-style-type: none"> <li>✍ Environment Economist</li> <li>✍ Legal Draftsman</li> </ul>	<p><b>Roles and Responsibilities:</b></p> <ul style="list-style-type: none"> <li>🏛 GOJ / USAID</li> <li>🏛 Ministry of Land and Environment</li> <li>🏛 NIWMC / Corporate Entities/ OUR (utilities) / Cabinet</li> <li>🏛 NEPA / Corporate Entities</li> <li>🏛 NEPA/Multilateral Agencies</li> <li>🏛 NIWMC Corporate Entities/ OUR (utilities) / Cabinet</li> </ul> <p><b>Team Members</b></p> <p><i>Cheyenne Caine; Gawaine Forbes</i></p>
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<b>Strategic Direction No. 3</b>	<b>Priority Action Defining Roles &amp; Responsibilities</b>
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Objectives: Clear identification of mandates & responsibilities to support the integrated approach to watershed management

<p><b><u>Key Activities</u></b></p> <ol style="list-style-type: none"> <li>1. Evaluate structure &amp; mandate of organizations.</li> <li>2. Determine roles and responsibilities.</li> <li>3. Conduct Gap analysis of institutional capacities.             <ol style="list-style-type: none"> <li>3.1 Incorporate recognition of local groups in Act.</li> </ol> </li> <li>4. Establishment of accountability mechanisms to bind all elements of the organizational hierarchy (including heads of agencies) to roles and responsibilities.</li> <li>5. Develop Memorandums of Understandings.</li> <li>6. Elucidate NIWMC's and composition mandate for all partners / stakeholders.</li> </ol> <p><b>Technical Assistance</b></p> <ol style="list-style-type: none"> <li>1. Training programs for in house purposes to supplement knowledge base.</li> <li>2. Identify public and private sector partnerships.</li> </ol>	<p><b>Roles and Responsibilities:</b></p> <ul style="list-style-type: none"> <li> Lead organizations &amp; key supporting organizations &amp; roles / responsibilities &amp; coordinating bodies</li> <li> NIWMC &amp; cabinet</li> <li> 18 members NIWMC (public, private &amp; NGO)</li> </ul> <p><b>Team Members</b></p> <p><i>Mark Nolan ; Herbert Thomas ; Beatrice Elvey ; Futtremann Whyte ; Vivian Blake</i></p>
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<b>Strategic Direction No. 4</b>	<b>Public Education To Establish a Comprehensive Public Education Programme</b>
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**Objectives:** To inform the public and decision makers about watersheds and the benefits to be derived from protection and conservation of these areas

<p><b><u>Key Activities:</u></b></p> <ol style="list-style-type: none"> <li>1. Radio jingles and radio drama. To create and broadcast.</li> <li>2. Posters - design and distribute.</li> <li>3. Expositions – Hold, participate.</li> <li>4. School curriculum - development.</li> <li>5. Documentary - TV.</li> <li>6. It Haffi Legal - continue.</li> <li>7. Workshops – Decision makers.</li> </ol> <p><b><u>Technical Assistance:</u></b></p> <ol style="list-style-type: none"> <li>1. <i>PR Consultants</i></li> <li>2. <i>NIWMC – Working Group</i></li> <li>3. <i>Technocrats and legal officers</i></li> </ol>	<p><b>Roles and Responsibilities:</b></p> <ul style="list-style-type: none"> <li> JIS, JCDC, CPTC</li> <li> JIS, NEPA</li> <li> NIC, NEPA, WRA, RADA, NWC, TPDCo, FD, NSWMA etc.</li> <li> Ministry of Education, NEEC</li> <li> TVJ, CVM, LOVE, Local Cable, JIS, CPTC</li> <li> Ministry of Justice, NEPA, ENACT</li> <li> NEPA</li> </ul> <p style="text-align: center;"><b>Team Members</b></p> <p><i>Pat Tyrell ; Thera Edwairds ; Shakira Azan ; Hugh Graham</i></p>
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<b>Strategic Direction No. 5</b>	<b>Assessment &amp; Monitoring</b> <b>Provide Frame work for inventory and economic valuation of watershed services</b>
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Objectives: To determine cost of rehabilitation & managing watershed to ensure sustainability

<p><b>Key Activities</b></p> <ol style="list-style-type: none"> <li>1. Research &amp; review historical data.</li> <li>2. Use survey including IKONOS to audit health of watersheds.</li> <li>3. Prioritize watershed works based on health valuation and cost.</li> <li>4. Cost rehabilitation and management of watersheds.</li> <li>5. Define indicators showing improvement/ degradation.</li> <li>6. Obtain resources for rehabilitation management</li> </ol> <p><b>Technical Assistance</b></p> <ol style="list-style-type: none"> <li>1. NIWMC</li> </ol>	<p><b>Roles and Responsibilities:</b></p> <ul style="list-style-type: none"> <li> NEPA, Forestry Department, WRA, NWC</li> <li> NEPA, Forestry Department, WRA, NWC</li> <li> NEPA, Forestry Department, NWA, OPEM, Geology &amp; MINES Dept. / UWI</li> <li> NEPA, Forestry Department, NWA</li> <li> NEPA, Forestry Department, NWA</li> <li> NEPA,</li> </ul> <p><b>Team Members</b></p> <p><i>Joseph Pennant ; Michael Forbes</i></p>
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## Implement Special Studies

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A variety of special studies were approved and initiated which support R2RW activities. These are described in the following paragraphs.

### **A Framework for Developing Alternative/Pro-poor Tourism in the Great River and Rio Grande Watersheds**

***Proposal submitted by: Dr. Ian Boxill, the University of the West Indies***

The Project will construct a framework for developing pro-poor tourism as a means of creating more sustainable livelihoods for communities. The specific objectives of this study are to:

- ✍ Evaluate the social and economic impacts on the watersheds of the current forms of tourism;
- ✍ Identify the factors which constrain and facilitate tourism development in the watersheds;
- ✍ Identify the most appropriate forms of tourism which can bring about optimal returns to the communities, while promoting sustainable development;
- ✍ Estimate the likely benefits and costs that may result from tourism development in the watersheds;
- ✍ Identify the human resources which exist and those which are needed for tourism development in the watersheds;
- ✍ Identify the linkages which can be made between the various economic sectors in the communities and between the communities and the wider tourism product in Jamaica;
- ✍ Identify the institutional arrangements that are required to support pro-poor tourism; and
- ✍ Construct an overall model of pro-poor tourism development strategy for the two watersheds.

The proposal was reviewed by the PIC, and it was endorsed pending satisfactory review and approval by the Ministry of Industry and Tourism. This endorsement was given on February 26, 2004. This Project will contribute to sustainable watershed management through focusing on a type of tourism that will emphasize better use of natural resources and the development of more sustainable livelihoods. Its findings will help diversify the country's tourism product, enhance the country in the market place as a 'green' destination, integrate the tourism product more within the wider society, create greater linkages with other sectors of the economy, and properly utilize the country's cultural and natural resources.

### **Rio Grande Stakeholder Assessment Report**

***Conducted by: Ms. Jodi Johnson, Consultant***

This study was initiated in response to a request in October 2003 from MLE regarding development concerns in the RGW. It began by collecting, collating, analyzing, and documenting major development concerns of each active agency. The objective of these steps was to determine how existing activities could co-exist while highlighting duplication of roles, gaps, and the opportunities to collaborate in using natural resources in the RGW. In preparing this report,

the consultant developed and administered a questionnaire, met directly with staff of the MLE, and analyzed earlier reports and studies of the RGW. Key findings of the Report include:

- ✍ *Obstacles to stakeholder performance:* unavailable human resource, inadequate training, inadequate funding, limited stakeholder cooperation;
- ✍ *Stakeholder concerns:* unsustainable land management;
- ✍ *Strengths:* most agencies committed to improvement, access to project funding, multiple venues for cooperation
- ✍ *Gaps:* communication and information sharing among agencies, absence of watershed policy, watershed emphasis in parish plans, duplicate roles or projects and agencies
- ✍ *Priority solutions:* Expand sustainable land practices, public education, public meetings, and watershed policy.

### **Proposal to GEF - An Integrated Approach to Managing the Marine, Coastal and Watershed Resources of East-Central Portland**

***Conducted by: Mr. Jairzehno Bailey***

This proposal, submitted to GEF for consideration for funding, built upon a previously approved concept paper submitted to UNEP/UNDP and CEHI that was presented for review at a Partnership Conference in Barbados in October 2003. This conference was attended by Thera Edwards of NEPA and Karen McDonald-Gayle of USAID. In order to apply for funding for the proposal, the concept paper needed to be transformed into the GEF Submission Format. The SWB, a key strategic partner of R2RW, requested the assistance of R2RW for funding a consultant to complete the submission.

R2RW prepared a Scope of Work for the activity which called for reviewing the existing concept paper and other background documents on the defined project area, reviewing GEF submission templates and other background notes and recommendations provided by the GEF, and preparing the formal submission. During the reporting period, no decision had been made regarding the acceptability of the proposal.

### **Investigation of Wood Boring Insects in Honduras Mahogany (*Swietenia macrophylla*) and Blue Mahoe (*Hibiscus elatus*)**

***Conducted by: Dr. Luko Hilje, Senior Entomologist at the Plant Protection Unit, Tropical Agricultural Research and Higher Education Center (CATIE), Turrialba, Costa Rica***

A final report was submitted on the Consulting Trip with objectives to identify the Wood-boring Insects Infesting the Honduras Mahogany and the Blue Mahoe Plantations in Jamaica, and to Recommend Remedial Actions to Mitigate the Infestation. This study was undertaken at the request of the Forestry Department. Both conclusions and hypotheses for them are presented. Conclusions include:

- ✍ "Damage to both Honduras mahogany and blue mahoe plantations is very high (perhaps as high 75%), depending on their age and location, and is widespread all over Jamaica.
- ✍ Borers are not the cause of the observed damage to Honduras mahogany and blue mahoe.

- ✍ Damage seems to be due to one or more interacting biotic (tree age) and abiotic (physical) factors, perhaps exacerbated by fungal pathogens which may cause tissue disintegration (rotting).”

Hypotheses for the identified condition resulted from discussions and field observations and include tree over-maturity, site quality, lack of stand management, and strong winds and hurricanes.

### **Reducing Child Poisoning in Great River and Rio Grande Watersheds**

R2RW, the GRWMC, and the RGWMC responded positively to a grant application from the Pesticide Control Authority (PCA) for “Reducing Child Poisoning in Great River and Rio Grande Watersheds”. The activity is aimed at reducing poisoning among children aged 1-5 in the GRW and RGW through increased public awareness. The Project will be conducted between March 2004 and May 2005. It will involve the following:

- ✍ Increased awareness among parents and caregivers. This will be done by preparing and printing of a comic book and posters for 12 health centers and making presentations at pre and post natal clinics
- ✍ Sensitizing children to the dangers of pesticides and household chemicals. This will be done through distribution of leaflets, bookmarks and posters of pesticides and household chemicals for use in schools, health centers, farm households and 4-H clubs
- ✍ Measurement of project effects. This will be done through collecting and analyzing poison data in the area quarterly.

This project was developed through the active input of the R2RW Technical Team, and it was endorsed by the Public Awareness Task Forces of the Great River and Rio Grande Management Committees. The project will be implemented in collaboration with the 4-H Environmental Challenge Program recently approved and with the assistance of the Jamaica Information Service. R2RW funding will be used for technical assistance to design, print, and distribute materials produced for training sessions in health and farm-related centers, presentations at public awareness events, and traveling and subsistence.

## First Lessons Learned Scope of Work

### Ridge to Reef Watershed (R2RW) Project Scope of Work

<b>Title:</b>	Looking Forward to Project Completion: Developing Seventh Semi-annual Report (SAR), identifying and describing key lessons learned, planning for close-out
<b>Activity:</b>	ARD Senior Technical Advisor, ARD Knowledge Management Specialist, and Jamaican Planning & Organization Specialist working with primary R2RW stakeholders to (1) produce a substantive draft of the project's seventh SAR, (2) develop useful and effective formats for "lessons learned" materials to communicate identified key lessons from the R2RW project, and (3) draft a Close-out Plan to guide project completion.
<b>Consultants:</b>	<ol style="list-style-type: none"> <li>1. Senior Technical Advisor (STA), ARD – Chris McGahey</li> <li>2. Knowledge Management Specialist (KMS), ARD – Jonathan Hodgkin</li> <li>3. Planning &amp; Organization Specialist (POS) - Cordia Thompson</li> </ol>
<b>Supervisor:</b>	Mark Nolan, Chief of Party
<b>Duration:</b>	38 person-days total Level of Effort Fieldwork between April 11 and April 30, 2004 Document completion May 2004

### Background

The R2RW Project staffs have been implementing a complex network of mutually supportive activities for over three years. They are currently implementing their fourth annual work plan, and the final year of the project will be year five. The fourth annual work plan includes the contractual requirement of a semi-annual report and the innovative implementation of four "anchor" projects that focus project resources on the larger problems and issues that impact the management of the two target watersheds. At the same time, the R2RW staffs continue their multiple activities to assist watershed management committees and local organizations in the Rio Grande and Great River Watersheds, as well as the Government of Jamaica, to realize improved, sustainable environmental management practices.

Beginning in the third year of the Project, significant achievements were made by the project. These were documented for the first time in the project's third annual report, and this level of achievement is expected to continue through the completion of the Project. Direct impacts and achievements were noted in the Annual Report for that year, and indirect – and largely anecdotal – impacts and achievements were beginning to be identified. During Project Years 4 and 5, it will be important to begin investigating these impacts and achievements more deeply and documenting them for future use by Jamaicans and USAID.

Lessons from R2RW implementation will be extremely valuable to USAID, NEPA and other GOJ agencies, Jamaican Watershed Management Committees, local organizations, and other donors

interested in supporting watershed management initiatives. As R2RW proceeds through its final two years of implementation, a mutually-agreed-upon framework will ensure effective capturing of these lessons. In this way, they can be most comprehensively understood, learned from, and absorbed into the daily practices of affected institutions and communities. At the end of the Project, these lessons will be the legacies that the Project will leave behind to support continued improvement in watershed management in Jamaica after the regular inputs of R2RW are no longer available.

Under this Scope of Work, the achievements documented in the last annual report will be amended to reflect six more months of project activity, an ARD Knowledge Management Specialist (KMS) will establish the framework and initiate the capture of Project achievements and lessons, and a Project Close-out Plan will be drafted for review by R2RW staff, NEPA, and USAID. The KMS, in cooperation with a Jamaican consultant and the ARD home-office Senior Technical Advisor (STA) for R2RW, will assist project stakeholders, including USAID/Jamaica, NEPA, Watershed Management Committees, local organizations and R2RW staff to develop the framework and capture initial lessons learned in formats that address their information needs. Documented lessons may take a variety of forms, including but not limited to inspirational lessons to be shared throughout watershed communities, information prepared for institutional and knowledge management websites (including USAID knowledge management databases), curricula for training courses, and process documents that refine NEPA or USAID procedures for key activities under future programs, such as grants monitoring, approaches to carry out community-based grant funding, watershed committee formation and support, and environmental community outreach.

Under this SOW, R2RW intends to mobilize two ARD home-office staff members and a Jamaican specialist who are each familiar with the project, have international experience in knowledge management, and are experienced in the design, implementation, and assessment of integrated water resources programs. Each has worked extensively for USAID programs in Jamaica and will work closely with R2RW stakeholders.

### **Purpose**

The purpose of this Scope of Work is:

- ✍ To prepare a substantive draft of the Seventh Semi-annual Report for R2RW;
- ✍ To identify the information needs of primary R2RW stakeholders relative to R2RW lessons learned, to develop formats for the presentation of lessons learned that will be functional and fulfill stakeholder needs, and to identify key lessons from the R2RW project experience to be conveyed.
- ✍ To identify a limited number of major lessons learned that will be promoted by Project Staff, and to initiate documentation of these lessons learned through case studies and other materials so that the lessons can be disseminated to key partners and stakeholders in the R2RW network.
- ✍ To draft for stakeholder review a Close-out Plan to guide completion of R2RW during Project Years 4 and 5.

This Scope of Work should be viewed as the first of a series of 2 activities to comprehensively document the successes and lessons of the project for use by primary Jamaican stakeholders, principally USAID/Jamaica and NEPA.

## Activities

The activities to be undertaken to achieve the purposes of this consultancy include the following:

- ✍ The Senior Technical Advisor (STA) and the Knowledge Management Specialist (KMS) will complete a series of interviews with representatives of R2RW, USAID, NEPA, watershed-level Task Force leaders, and the Rio Grande and Great River Watershed management committees (key stakeholders) to:
  - Establish a common understanding of knowledge management in the context of lessons learned,
  - Clearly identify information needs relative to R2RW lessons learned, and
  - Identify key lessons learned from R2RW which merit expansion and documentation.
- ✍ The KMS, the POS, and the STA will utilize a variety of methods, including (as appropriate) appreciative inquiry, facilitated discussions, participatory rural appraisal, and stakeholder interviews to identify potential case studies that will be developed into lessons learned.
- ✍ The KMS with input from the POS and the STA will develop a framework to structure further documentation of identified lessons learned including formats useful to key stakeholders.
- ✍ The KMS and POS will refine an approach for capturing lessons learned throughout the remaining years of the project.
- ✍ The KMS with input from the POS will develop at least 3 lessons learned case studies as initial examples of R2RW lessons learned, in formats defined with stakeholders, for presentation to and consideration by USAID, NEPA, R2RW staff, and Watershed Management Committees.
- ✍ The KMS will lead the review of previous USAID project close-out plans and prepare a R2RW Close-out Plan based on past successes.
- ✍ The STA will work closely with the KMS in all of the above activities, and he will lead the drafting of the Seventh Semi-annual Report for delivery to the R2RW Chief of Party on the last day of his work in Jamaica and finalization by the R2RW staff under the direction of the Chief of Party.

## Output

The following outputs are expected of the consultancy:

- ✍ A final draft of a framework for R2RW lessons learned that addresses the information needs of all key stakeholders.
- ✍ A list of R2RW case studies that are recommended for development into lessons learned, including supporting information on the relevance of each to stakeholders,
- ✍ A final draft of at least 3 fully developed lessons learned case studies, in formats defined with stakeholders, and
- ✍ Draft Scopes of Work for future consultancies to continue Project knowledge management activities in support of Project and stakeholder objectives.

- ✍ A substantive draft of the R2RW Seventh Semi-annual Report.
- ✍ A draft R2RW Close-out Plan for review by key stakeholders.

## **Personnel**

Three people with overlapping but supportive skills are to be mobilized under this Scope of Work to complete multiple tasks in a focused amount of time. Each consultant is experienced in the environmental and infrastructure sectors in Jamaica, is familiar with the R2RW Project, and is known to USAID/Jamaica staff. Each will have lead responsibilities for certain outputs and will be expected to make substantive contributions to the others. Following this approach, the set of outputs from the consultancy will be prepared quickly, efficiently, and with minimal disturbance to the R2RW implementation team.

### ***ARD Senior Technical Advisor, ARD – Dr. Chris McGahey (14 days)***

Dr. McGahey has been working closely with the USAID Environment Team since 1994, and he has overall responsibility for ARD's corporate oversight and quality control for R2RW. He was the lead author of the most recent annual report for the project and was lead author of its mid-term assessment report. He will serve as team leader for this consultancy, and he will have lead responsibility for completing a draft of the project's semi-annual report during this assignment. He is also expected to make significant contributions to developing the lessons learned outputs from this assignment for the project.

### ***Knowledge Management Specialist, ARD – Mr. Jonathan Hodgkin (14 days)***

Jonathan Hodgkin has been working regularly in Jamaica under the CWIP project from its inception through its close-out on multiple aspects of work planning, monitoring, reporting, and management. On this assignment, he will have lead responsibility for negotiating the form and content of the "lessons learned" documentation for R2RW, NEPA, and USAID. His 26 years of experience with ARD and USAID projects leave him with a careful eye and a clear vision of what makes a valuable lesson. In addition, Mr. Hodgkin will make use of his experience in planning for the closing down of USAID-funded projects for ARD – most recently in Armenia – to lead the preparation of a close-out plan which the project can follow over the next 18 months to ensure effective, efficient, and responsive completion.

### ***R2RW Planning and Organization Specialist - Ms. Cordia Thompson (10 days)***

Cordia Thompson is a Jamaican consultant who has been playing a lead supporting role with R2RW in the design and work planning of multiple "anchor projects" which have been initiated during Project Year 4. These "anchor projects" are intended to feature many of the best aspects of R2RW implementation that have been established by the project during its first three years. Ms. Thompson will bring to this assignment her intimate knowledge of these critical projects and the partners leading their implementation. This knowledge will greatly facilitate the ability of the other two team members to glean key lessons from the cutting-edge work and to capture the development of the "anchor projects" in the project semi-annual report.

## **Level of Effort and Illustrative Proposed Schedule**

This assignment is to begin on or about April 13, 2004 and fieldwork completed by April 30, 2004. Final documents will be submitted in May 2004 after local comments are received and addressed. It is estimated that 38 consultant days are required to complete this assignment, inclusive of travel time broken down as follows:

Senior Technical Advisor and Knowledge Management Specialist arrive in Jamaica	14 April
STA, KMS and POS meet with USAID, R2RW staff and NEPA. KMS begins analyzing R2RW and NEPA documentation for suggestions of possible lessons to be further investigated. STA initiates Semi-annual Report	15-17 April
Discussions and interviews with NEPA, USAID and R2RW staff, to establish a common understanding of R2RW knowledge management, and to identify their information needs	19 April
Discussions and interviews with Great River and Rio Grand Watershed Committee and Task Force members, and R2RW stakeholder organizations to establish a common understanding of R2RW knowledge management, identify their information needs, and identify potential case studies	20-23 April
Fully develop priority lessons learned in formats identified with key stakeholders	24-26 April
Review and refine framework with NEPA, USAID, and R2RW Staff	27 April
Submit written framework, draft Semi-annual Report, and draft Close-out Plan to R2RW COP	28 April
STA and KMS leave Jamaica	28 April
STA and KMS finalize lessons learned framework and Close-out Plan responding to input from NEPA, R2RW staff, and USAID	May



## Recommendations from R2RW Mid-term Internal Assessment

### Proposed Chronology Action on Recommendations from R2RW Mid-term Internal Assessment 25 July 2003

Report Heading	Recommendation	Location in Report	Deadline	Responsible (first name lead, others support)
Component 1	Initiate coordinated process to identify and act on "anchor projects"	page 24, Component 1, Item 1	August 2003	MNolan R2RW Team
Component 2	Engage full-time staff member for public awareness activities	page 24, Component 2, Item 1	August 2003	MNolan PPAPRS –initial action to follow-on poster distribution
Organization and Staffing	Increase COP delegation through new organizational structure (training for key staff?)	page 26, Organization and Staffing, Item 1	August 2003	MNolan
Management and Client Communications	Complete efforts to clarify specific information and communication needs of three key client representatives and satisfactorily meet those needs	page 28, Management and Client Communication, Item 1	August 2003	MNolan
Management and Client Communications	Ensure equitable information dissemination to each of three key client representatives	page 28, Management and Client Communication, Item 2	August 2003	MNolan
Management and Client Communication	Confirm purpose, composition, and operation of PIC are clear, agreed upon and correct	page 28, Management and Client Communication, Item 3	August 2003	MNolan
Management and Client Communication	Establish regular staff meeting and team briefings	page 29, Management and Client Communication, Item 6	August 2003	MNolan
Component 1  Contract and Indicators	Develop and apply to Project-funded activities indicators directly relevant to improved watershed management  (note per USAID: clarify and strengthen reporting against the PMP and work plans)	page 24, Component 1, Item 2  page 28, Contract and Indicators, Item 1	October 2003	MNolan External TA

Report Heading	Recommendation	Location in Report	Deadline	Responsible (first name lead, others support)
Component 2	Continue work with governmental enforcement personnel (and consider generating indicators of success)	page 24, Component 2, Item 3	October 2003 reflected in annual work plan	MNolan TSpence
Component 3	Plan strategy for infusing lessons learned and skills developed into Sustainable Watersheds Management Branch	page 25, Component 3, Item 1	October 2003 reflected in annual work plan	MNolan
Component 3	Continue and expand exchange visits between watersheds (consider annual LWMC conference)	page 25, Component 3, Item 2	October 2003 reflected in annual work plan	MNolan
Component 3	Continue engagement with NIWMC	page 25, Component 3, Item 3	October 2003 reflected in annual work plan	MNolan
Component 3	Capture lessons from previous USAID environmental projects through facilitated discussion	page 25, Component 3, Item 5	October 2003	MNolan CWIP II COP NEPA USAID
Organization and Staffing	Improve precision of Scopes of Work for Programme Consultants	page 26, Organization and Staffing, Item 2	October 2003	MNolan R2RW team
Organization and Staffing	PPAPRS to lead – not directly implement – participatory, gender, public awareness, and public relations activities	page 26, Organization and Staffing, Item 3	October 2003	PPAPRS MNolan
Organization and Staffing	GNRS will reduce facilitation and training roles and expand leadership of Component 2	page 26-27, Organization and Staffing, Item 4	October 2003	TSpence MNolan
Organization and Staffing	COP lead design and conduct of team-building session for technical and administrative staff	page 27, Organization and Staffing, Item 5	October 2003	MNolan External TA
Organization and Staffing	COP ensure that orientation programme is designed and implemented to increase awareness of former ASC staff	page 27, Organization and Staffing, Item 6	October 2003	MNolan External TA
Organization and Staffing	Ensure sufficient in-office clerical support	page 27, Organization and Staffing, Item 7	October 2003	MNolan
Organization and Staffing	Structure Construction Supervisor's contract to allow LOE for flexible support to project needs	page 27, Organization and Staffing, Item 8	October 2003	MNolan

Report Heading	Recommendation	Location in Report	Deadline	Responsible (first name lead, others support)
Organization and Staffing	Determine final organization chart for new R2RW structure	page 27, Organization and Staffing, Item 9	October 2003	MNolan
Management and Client Communication	Demonstrate positive cooperation between R2RW and other projects in USAID environmental portfolio	page 28-29, Management and Client Communication, Item 4	October 2003 cooperation mechanisms reflected in annual work plan	MNolan R2RW team
Component 3 (text)	Support NEPA initiatives: (1) preparing National Programme of Action for Marine Pollution from Land-based Sources, (2) utility of Agency following an ecosystem approach to environmental planning, and (3) strengthening the contributions of local area, land use, and spatial planning to overall environmental management.	page 8, Component 3, paragraph1	October 2003 reflected in annual work plan	MNolan R2RW team
Component 1	Capture and promote achievements and lessons from field activities	page 24, Component 1, Item 3	January 2004	MNolan PPAPRS External TA
Component 2	Training curriculum for using compliance and enforcement posters (and pocket guide)	page 24, Component 2, Item 2	January 2004	PPAPRS External TA
Governance	Review, schedule, and communicate plans for diminishing project support to WMCs	page 25, Governance, Item 1	January 2004 reflect in annual work plan	MNolan R2RW team External TA
Governance	WMCs identify functions to take on during diminishing support	page 25, Governance, Item 2	January 2004	MNolan R2RW team
Governance	Demonstrate more active engagement of private sector interests in watershed planning (also expand engagement of all Parish Councilors in the Great River watershed)	page 26, Governance, Item 4	January 2004 reflect in annual work plan	MNolan PPAPRS
Management and Client Communication	Articulate project successes to enable USAID to promote them to their clients and justify investments	page 29, Management and Client Communication, Item 5	January 2004	PPAPRS External TA
Component 3	Initiate actions outside of Great River and Rio Grande watersheds	page 25, Component 3, Item 4	April 2004	MNolan R2RW team

Report Heading	Recommendation	Location in Report	Deadline	Responsible (first name lead, others support)
Governance	Document lessons from operation of WMCs and propose institutionalization mechanisms	page 26, Governance, Item 3	April 2004	MNolan External TA
Component 2	Validate effectiveness of public awareness campaign in improving compliance with laws	page 25, Component 2, Item 4	July 2004	PPAPRS
Governance	Conduct training of trainers on participatory facilitation	page 26, Governance, Item 4	July 2004	M Nolan T Spence External TA

## R2RW Technical Team Retreat

December 16-17, 2003, Trident Hotel, Port Antonio

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### Purpose

The Retreat will involve Team Members in:

- ✍ Determining the things that the Project has done well, and those that could be improved on;
- ✍ Assessing staffing issues and team dynamics;
- ✍ Reviewing the Fourth Annual Work Plan, and establishing priorities by month;
- ✍ Reviewing the status and plans for the Anchor Projects; and
- ✍ Reviewing and making adjustments to the Project approaches.

### Tuesday, December 16<sup>th</sup>

4:00 – 4:15 pm            **Preliminaries** (Prayers, Purpose, Expectations, Announcements)

4:15 – 6:00 pm            **Session 1:** Building a Balance Sheet

Reflecting on achievements

Listing what the project team has done well, and what could be done better.

Listing issues being faced by Project

6:30 pm                    **DINNER**

### Wednesday, December 17<sup>th</sup>

7:00 am                    **BREAKFAST**

8:00 – 10:00 am        **Session 2:** Staffing and Team Dynamics

Review of individual areas of responsibility  
 Team responsibilities per FAWP  
 Recent hires  
 Team dynamics  
 Expansion of Team in 2004

10:00 – 10:30 am        **BREAK**

10:30 – 12:30 pm        **Session 3:** Review of Fourth Annual Work Plan

Review achievements in first quarter  
 Review MS Project schedule of planned activities  
 Review of Anchor Project descriptions  
 Construct matrix of priority interventions by month  
 Construct implementation plan for Anchor Projects

12: 30 – 1:30 pm

**LUNCH**

1: 30 – 3:30 pm

**Session 4:** Implementation Methodologies, Approaches and Strategies

Articulation of approaches for achieving Project objectives and FAWP activities

Advantages and Limitations of Approaches

Adjustments and Refinements for the coming year

3:30– 4:00 pm

**Conclusions and Next Steps**

## **R2RW Project Team Retreat – Agenda**

Beaches Boscobel Resort & Golf Club, Oracabessa, St. Mary, December 12 – 13, 2003

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### **FIRST DAY**

- 10: 00 – 10: 30 am      **Arrivals**
- 10: 30 – 10: 45 am      **Preliminaries** (Prayers, Purpose, Expectations)
- 10: 45 – 11: 45 am      **Session 1** - Building a Balance Sheet
- 11: 45 am – 12: 30 pm   **Session 2** – Review of the Project Approaches
- 12: 30 – 2: 00 pm      **LUNCH**
- 2: 00 – 3: 30 pm      **Session 3** – Reviewing the Fourth Annual Work Plan
- 3: 30 – 4: 00 pm      **BREAK**
- 4: 00 – 6: 00 pm      **Session 4** – Reviewing the Anchor Projects

### **SECOND DAY**

**Reflections on Staffing etc**

**Next Steps**

**Announcements**

**Team Activities**





# Updated Work Plan Gantt Charts Showing Percentage Completion by Task

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