COMPREHENSIVE INTEGRATED MANAGEMENT PLAN FOR THE MAYAGÜEZ BAY WATERSHED RESEARCH PROGRAM

For the month ending: 1/31/2004 **Date of the report**: 2/13/2004 **Project** # CIMP- 002

Project Title: Nutrient discharges from Mayagüez Bay Watershed

Name of Contact (PI): David Sotomayor Ramírez

Telephone: 787-265-3851 x3734 **Fax:** 787-265-0860 **email**: david_sotomayor@cca.uprm.edu;

Names of Co-Pis: Luis Pérez Alegría, Gustavo Martínez

Percentage of Work completed in this month (%). 8

Accumulative Percentage of work completed (%). 40

Summary of Progress on Project in this month by task as listed in the work schedule (attach additional sheets, if necessary):

1. We have completed bi-weekly grab sampling at the five stations of the sub-watersheds Quebrada Cercada, Cerro Gordo, Quebrada Cerrote, Quebrada Chamorro, and Guaba within the RGA watershed. To date we have completed sampling for the following dates for the year 2003: 20 January, 4 February, 18 February, 4 March, 18 March, 2 April, 22 April, 29 April, 12 May, 28 May, 10 June, 24 June, 8 July, 18 August, 2 September, 16 September, 30 September, 14 October, 28 October, 11 November, 2 December, and 16 December. A total of 36 sampling events have been performed over a 582 day period. In addition two transects, involving five sampling points each, to assess sources of bacteria to streamwater column have been performed.
2. All of suspended sediment analysis has been completed. All of the bacterial and suspended sediment analyses have been completed. Chlorophyll a values have been completed. Dissolved NH_4^+-N and NO_3^--N analysis are in progress. Nearly 80% of the dissolved P, total P, and total Kjeldahl N analysis have been completed.
3. Two ISCO 3000 Automatic Storm Event Samplers have been installed at Cercada and Cerro Gordo subwatershed in Añasco. Storm event sampling has been performed from August to December 2003. Seventeen storm event were collected in Cercada watershed from 16 september 2003 to 14 December 2003. The events lasted from 30 minutes to a maximum of two hours.

Summary statistics of hydrologic flow per event and concentrations are presented below: `

	Flow	Suspended sediments	Total P	Dissolved P	TKN
	ft^3		mg/L		
Mean	3516	1376	0.080	0.051	3.40
Stdev	3531	1318	0.027	0.021	1.80
Range		86.40 - 5065	0.040 – 0.109	0.010 – 0.078	2.72 – 7.08

The number of data points (n) for flow, suspended sediments, total P, dissolved P, and TKN are 17, 17, 6, 6, 6, respectively.

Summary statistics of sediment, phosphorus, and nitrogen loads are given below:

	Suspended sediments	Total P	Dissolved P	TKN
		kg		
Mean	235.1	0.007	0.004	0.59
Stdev	543.8	00.005	0.002	1.08
Sum	3997.5	0.056	0.029	4.67

Status (Please check were appropriate)

Project Status (x)

_x___On Schedule ____Delayed ____Suspended ____Cancelled ____Completed