

# Río Loco Update FY 2013

By Mario Rodríguez,  
NRCS Resource Conservationist

During fiscal year 2013, the Río Loco / Guánica Bay Special Project experienced great challenges. Among others, this initiative experienced climate changes, problems with the availability of resources, changes in local government, including officials in charge of the permits filing process, all making this project one of major challenges and tests. However, NRCS and its conservation partners successfully managed the installation of almost 80 percent of the structural conservation practices planned to manage runoff and improve water quality. The initiative for the restoration and protection of Guánica Bay's coral reefs is developing and taking shape thanks to the efforts and support of our partners in conservation.



Installing Irrigation Water Conveyance (Photo: M. Rodríguez, NRCS).

### Points Of Interest:

- New Partnerships like "Mesa Redonda de Café" have been created.
- \$438,197 in active conservation has been allocated for shade coffee since the Guánica Initiative started in 2010.
- The Guánica Initiative allocated \$1,635,793 for Water Quality and Runoff control in Guánica Valley.
- All conservation practices are funded through the NRCS Environmental Quality Incentives Program (EQIP) and the PR Department of Agriculture (PRDA).

## Upper Watershed Initiative (Shade Coffee)

- ◇ US Fish and Wildlife Service (USFWS) is partnering with NRCS on this initiative.
- ◇ USFWS is in charge of site evaluation and recommendations for forestry and wildlife.
- ◇ \$438,197 in active conservation has been allocated for shade coffee since the Initiative began in 2010.
- ◇ 769 acres have been contracted as part of the shade coffee initiative, part of the Guánica Bay Watershed project.
- ◇ 30 farms have converted their cropping systems to Shade Coffee.
- ◇ Over \$320,875 in implementation cost/share payments have been paid for reforestation and conser-

vation practices to participants that changed their cropping system from conventional to conservation - shade coffee.

- ◇ New partnerships like "Mesa Redonda de Café" have been created to encourage and disseminate information and technology regarding Shade Coffee production.



Ripe coffee ready for harvest (Photo: M. Rodríguez, NRCS).

### Structural Practices Certified Completed in FY 2013

- ⇒ 6600 linear feet of Irrigation Water Conveyance.
- ⇒ 3 Irrigation Water Reservoirs for an added total of 10.6 M gallons of clean water from Loco Dam.
- ⇒ 2 Sediment and Runoff Control Basins with an added total capacity of over 7.2 M gallons of runoff water
- ⇒ 5530 Linear feet of Open Channels diverting runoff water from Santa Rita Farm into sediment basin.

## Lower Watershed Initiative (Water Quality Runoff Control)

- ◇ The Guánica Initiative allocated \$1,635,793 for Water Quality and Runoff control in Guánica Valley.
- ◇ As of today, over \$537,595 has been paid out for conservation practice implementation.
- ◇ The Southwest Soil and Water Conservation District (SWCD) is in charge of the conservation practices implementation and supervision of the Río Loco / Guánica Bay Initiative.
- ◇ The existing deep well irrigation system was replaced with a surface water irrigation conveyance from Loco Dam, reducing the amount of water extracted from the aquifer.
- ◇ Since 2010, the Southwest SWCD has administered the

implementation of Río Loco—Guánica runoff control structural practices along the agricultural valley in Guánica Bay Watershed.

- ◇ The construction of another new sediment control basin with a capacity of 4.0 M gallons of runoff water will begin in the next stage in the first quarter of FY 2014.
- ◇ Over 3,350 linear feet of Open Channels will be added to Maria Antonia Farm to divert runoff water out of farm fields, beginning in the first quarter of FY 2014.
- ◇ All conservation practices are funded through the NRCS Environmental Quality Incentives Program (EQIP) and the PR Department of Agriculture (PRDA).

- ◇ One more new irrigation water reservoir will be constructed and two existing reservoirs will be reshaped adding about 10 M gallons of clean water for irrigation to the farming valley, relieving irrigation pressure on the available water in the aquifer and recharging it at the same time.



Río Loco (Photo: M. Rodríguez, NRCS).



Gabions protected Open Channel Outlet (Photo M. Rodríguez, NRCS).



## UNITED STATES DEPARTMENT OF AGRICULTURE

**Natural Resources Conservation Service**  
2200 Pedro Albizu Campos Ave, Suite 23  
Mayagüez, PR 00680

Phone: 787-831-3416 x.116  
Fax: 787-831-3315  
E-mail: [mario.rodriguez@pr.usda.gov](mailto:mario.rodriguez@pr.usda.gov)

### Helping People Help the Land



*Sediment Control Basin B completed in FY 2013 (Photo: M. Rodríguez, NRCS).*

The USDA Natural Resources Conservation Service (NRCS) is a natural resources and environmental agency of the U.S. Department of Agriculture. NRCS in the Caribbean Area provides services to Puerto Rico and the U.S. Virgin Islands. NRCS manages and administers several programs and initiatives, and works in partnership with 17 Soil Conservation Districts in Puerto Rico and one in the U.S. Virgin Islands. NRCS provides technical assistance, free of cost, to land users to solve their natural resources challenges and assist them in maintaining and improving their economic viability.

**MISSION:** To provide leadership and administer programs to help conserve, improve, and sustain our natural resources and environment.

**VISION:** A team dedicated to customer needs in harmony with the natural resources.

**POLICY STATEMENT:** We are committed to consistently fulfill our customers expectations in regards to their diversity.



*Irrigation Water Conveyance pipeline valves installed as part of the Río Loco water quality initiative (Photo: M. Rodríguez, NRCS).*

### Guánica Bay Watershed Special Initiative — Background

The Guánica Bay/Río Loco (GB/RL) watershed is located in the southwestern corner of Puerto Rico, approximately 20 miles west of the city of Ponce and 100 miles southwest of San Juan. Due to human alteration, the watershed is approximately 151 square miles and discharges to Guánica Bay near the town of Guánica.

The GB/RL watershed includes the urbanized areas of Yauco and a portion of the Lajas Valley agricultural region. The GB/RL is one of the major riparian discharge points in the southwest coast.

This watershed is highly manipulated. It has been artificially increased in drainage area by a series of inter-basin or inter-watershed water transfers, five reservoirs and two hydroelectric plants.

This project, operated by Puerto Rico Electric Power Authority (PREPA), was completed in order to increase and regulate potable water from the high elevation watersheds of the central cordillera (mountain region) for use by the local populations in Yauco, Guánica and the Lajas Valley for irrigation of crops and flood control. So while Guánica Bay receives water directly only from the Río Loco ("Crazy River"), the actual total drainage area encompasses much

more than just the Loco watershed. This includes the five smaller basins and associated reservoirs: Yahuecas Lake, Guayo Lake, Priedo Lake, Lucchetti Dam, and Loco Dam.

Guánica Bay is essentially drained by both the Río Loco, which receives flow from the four reservoirs north and upstream of it, as well as by historic Guánica lagoon. In its initial phase, the purpose of the project is to apply conservation practices in both the upper and lower parts of the watershed specifically to address soil erosion, water quality and quantity and wildlife habitat in agricultural lands to benefit the environment and the coral reefs in this part of the Island.



*Pineapple fields are often appreciated along Southwest Puerto Rico valley (Photo: M. Rodríguez, NRCS).*



*Hydro-seeding one of the Sediment Control Basin 1 (Photo: M. Rodríguez, NRCS).*



*Verdum Reservoir, one of the existing reservoirs to be reshaped (Photo: M. Rodríguez, NRCS).*



*The beaches of southwestern Puerto Rico are known for their white sands and clear waters (Photo: M. Rodríguez, NRCS).*



*Sediment Basin B completed in May 2013. It will receive runoff water from Maria Antonia Farm, Guánica, and has a water holding capacity of approximately 3.5 million gallons (Photo: M. Rodríguez, NRCS).*