

Morris J. Berman Restoration Projects

Annual Report



August 2009



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On January 7, 1994, the barge Morris J. Berman ran aground on a reef off Punta Escambrón, releasing approximately 925,000 gallons of fuel oil into waters near San Juan, Puerto Rico. The oil spread along the north coast of Puerto Rico, injuring resources along the shoreline and impairing their use for an extended period.



Berman grounding site and spill area.

The National Oceanic and Atmospheric Administration (NOAA), the National Park Service (NPS), and Puerto Rico Department of Natural and Environmental Resources (PRDNER) are the natural resource Trustees for this spill. A settlement agreement reached on December 28, 2000, among the Trustees and the parties responsible for the spill resolved claims for natural resource damages. The settlement included payment of nearly \$10 million to the Trustees for compensatory restoration projects in three injury categories: grounding-related reef injuries, lost recreational beach use, and lost visitor use of national historic site resources.

To meet their responsibilities to plan and implement restoration using settlement funds, the Trustees prepared a Restoration Plan/Environmental Assessment, which proposed restoration projects to address the injuries. After receiving input during a public comment period and two public meetings, several restoration projects were selected. These projects are described below under the category of injury they address.

Additional information on the projects is available in the Restoration Plan and Environmental Assessment, which may be found at <http://www.darrp.noaa.gov/berman> and <http://parkplanning.nps.gov>.

Projects to Restore Reef Resources

Three projects were selected to restore reef habitat and other reef resources injured by the barge grounding and subsequent oil spill.

Condado Coral Trail Project (Lead Agency: NOAA)

Project Status

The Coral Reef Trail Project in Condado Lagoon provides compensation for lost resources associated with the injured eolianite reef. After a baseline benthic survey of the site was conducted during the summer of 2008, the restoration project, led by the San Juan Bay Estuary Partnership, was completed in the fall of 2008. The San Juan Bay Estuary Partnership, working with HJR Reefscaping, placed 30 prefabricated cement reef-replication modules (known as Taino reef modules) at designated sites within the Condado Lagoon to create reef habitat similar to that lost as a result of the grounding.

The Condado Coral Reef Trail now consists of three underwater educational trails, each consisting of 10 Taino reef modules. These trails are located in front of the public beach between the Dos Hermanos Bridge and the breakwater that separates the Condado Lagoon from the Atlantic Ocean.

A dedication event celebrating the completion of the project was hosted by the San Juan Bay Estuary Partnership at Punta Escambrón on April 8, 2009. Periodic monitoring will track fish utilization and coral recruitment to the reef modules. The comprehensive outreach and educational component of the Coral Reef Trail Project provides students and the public with an opportunity to learn about coral reefs and natural resource restoration.



Thirty Taino reef modules were placed in Condado Lagoon to create reef habitat similar to that lost as a result of the grounding.



The Condado Coral Project partners, including the San Juan Bay Estuary Partnership, the Puerto Rico Department of Natural and Environmental Resources, EPA, NOAA, and HJR Reefscaping celebrated project completion at a dedication event on April 8, 2009.

Funding

Approved project budget:	\$66,000
Funds allocated in FY 2007:	\$0
Funds allocated in FY 2008:	\$66,000
Funds allocated in FY 2009:	\$0
Funds allocated to date:	\$66,000
Funds spent to date:	\$66,000 Project Complete

Condado Seagrass Restoration (Lead Agency: NOAA)

Project Status

The purpose of the Condado Seagrass Restoration Project was to restore seagrass habitat within the lagoon system. The project would use dredged marine sediments from San Juan Harbor to fill dredge holes within Condado Lagoon, approximately 1 mile southeast of the barge grounding site. Once these depressions were filled to grade and leveled, sunlight would be able to reach the seafloor and seagrass recovery could proceed naturally.

Due to issues with the planned joint funding process, it was not possible to implement this project. Consequently, the Trustees reallocated the funds slated for the seagrass project for use in acquiring additional land within the San Miguel Natural Reserve. This alternative use of funds was considered and documented in the Final Restoration Plan in the event the Condado Seagrass Project was not feasible. The land acquisition effort (described below) was successfully completed in December 2008.

Funding

Approved project budget:	\$750,000
Funds allocated in FY 2007:	\$0
Funds allocated in FY 2008:	\$750,000 (to Land Acquisition Project described below)
Funds allocated in FY 2009:	\$0
Funds allocated to date:	\$750,000
Funds spent to date:	\$750,000



Location of the Coral Reef Trail Project and the (aborted) Seagrass Restoration Project in Condado Lagoon, San Juan, Puerto Rico.

Projects to Restore Lost Recreational Beach Use and Lost Reef Services

Land Acquisition (Lead Agencies: PRDNER and NOAA)

Project Status

The Trustees evaluated numerous restoration projects intended to provide equitable compensation to the public for the lost reef services and lost recreational beach use caused by the grounding of the barge. With extensive input from the public, through a public comment period and two public hearings, the Trustees determined that acquiring lands for conservation purposes would best compensate the public for the injuries and losses sustained.

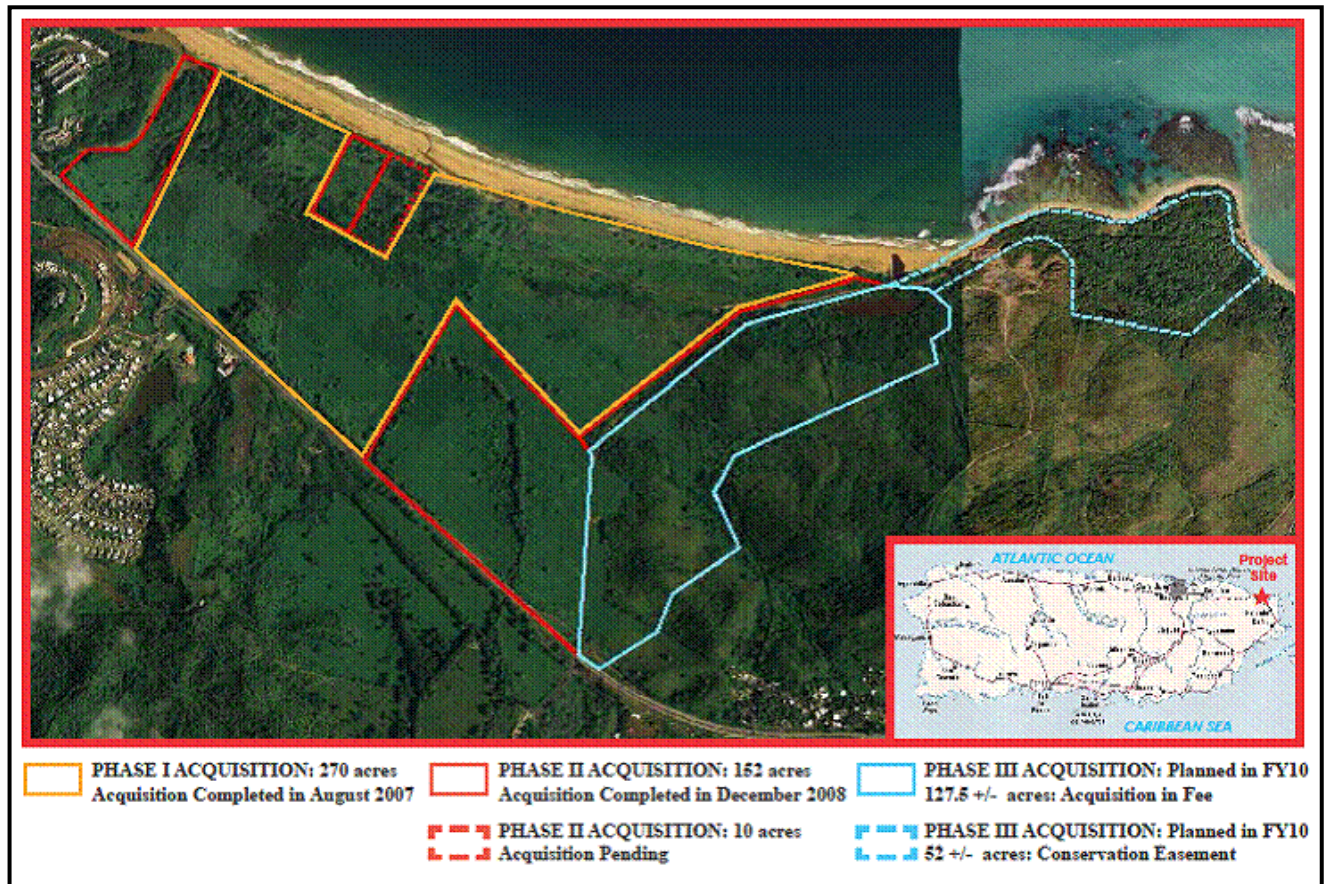
Several potential sites were evaluated, after which the Trustees selected a 270-acre privately-owned shoreline property. In August 2007, the Trust for Public Land (TPL) acquired a 270-acre parcel of land (Phase I) using \$5.6 million in Berman settlement funds allocated to compensate the public for the lost reef resources and grounding-related reef injuries. Titled the San Miguel Natural Reserve, this land is a part of Puerto Rico's Northeast Ecological Corridor. It is a mosaic of coastal habitats including near-shore coral reefs, more than a mile of beachfront, intertidal areas, wetlands, coastal dry forests, and mangroves.

The reserve is home to 16 federally listed threatened and endangered species, including the endangered leatherback turtle, which nests there. The land will be managed as a natural reserve under the Puerto Rico Department of Natural and Environmental Resources, and the public will have access to the site for low-impact recreational activities.



The San Miguel Natural Reserve is on the northeast coast of Puerto Rico and is managed by the Puerto Rico Department of Natural and Environmental Resources.

In December 2008, using \$2.6 million in Berman settlement funds allocated for projects to compensate the public for lost recreational beach use and the \$750,000 reallocated from the Condado Seagrass Restoration Project, TPL added 152 acres to the San Miguel Natural Reserve. Phase II of the Land Acquisition Project protects and conserves a wide variety of important coastal habitats including intertidal and emergent wetlands, coastal dry forests, mangrove habitat, and riverine habitat at the confluence of rivers. The conservation importance of the sea turtle nesting beaches found on these two parcels of land are identified in Recovery Plans for both Leatherback and Hawksbill sea turtles (National Marine Fisheries Service [NMFS] 1992, NMFS 1993).



The San Miguel Natural Reserve comprises 422 acres of protected coastal lands. Phase I and Phase II parcels were acquired with settlement funds to compensate the public for injured natural resources and lost recreational use of the beaches impacted by the spill.

The combined 422-acres of land acquired by TPL was transferred to the Puerto Rico Department of the Natural and Environmental Resources as a natural reserve. Completion of these land acquisition efforts coincided with the 15th anniversary of the Barge Berman grounding and spill, and compensates the public for the lost recreational beach use and reef injuries. Having the Phase I and Phase II parcels connected provides protection of more than a mile of important coastal habitat. It is hoped that this effort will help leverage future land acquisition efforts.

Funding

Approved Reef Restoration Account budget for project:	\$5,600,000
Approved Beach Restoration Account budget for project:	\$2,600,000
Transfer from Seagrass Restoration Project:	<u>\$750,000</u>
Total Project Budget:	\$8,950,000
Funds allocated in FY 2007:	\$8,200,000
Funds allocated in FY 2008:	\$750,000
Funds allocated in FY 2009:	\$0
Funds allocated to date:	\$8,950,000
Funds spent to date:	\$8,950,000 Project Complete

Projects to Compensate for Lost Visitor Use of San Juan National Historic Site

The oil spill and grounding caused a reduction in visitor services at San Juan National Historic Site for approximately six weeks. More than 123,000 visitors to the El Morro and San Cristobal forts were affected. Approximately \$1.8 million (including \$1,493,604 in the settlement plus interest accrued in the NRDAR Fund) is available for projects to address lost visitor use of the historic site. The three restoration projects selected are described below.

Improve and Extend the Coastal Promenade at El Morro (Lead Agency: NPS)

Project Status

This project at the El Morro Coastal Promenade (or “Paseo”) involves several subprojects: (1) extending the Promenade from its current terminus at the Water Battery eastward to connect with an existing stairway accessing the upper levels of the fort; (2) completing the overlook at the Water Battery; and (3) applying a non-slip treatment to the existing walkway. The estimated cost of these projects is \$1,375,000. Of the projects selected to compensate for lost visitor use of the San Juan National Historic Site (NHS), this project has the highest priority and, therefore, will be completed first. Funds remaining after this project is completed will be allocated to the projects listed below.

Designs for subprojects 1 (Promenade extension) and 2 (completing the overlook) were completed by AJC Architects in September 2008. The cost of that design contract was \$149,623.93. San Juan NHS intends to manage and perform the construction for subprojects 1 and 2, as well as for subproject 3 (existing walkway resurfacing), which will be completed last. In June 2009, work began on the trail that will connect the Paseo with the Phase III extension. This trail is being funded through a separate fee program account. Having received the final permit from the Corp of Engineers, a September 2009 startup date is anticipated. San Juan NHS is also in the process of procuring a contract to install rip rap for the new walkway. That contract is expected to be issued by October 1. San Juan NHS has constructed approximately 25 of the more than 100 light bollards needed, replaced all trash cans, and will soon replace existing water fountains along the existing Paseo. This work was part of the resurfacing and upgrades to the existing Paseo needed to meet current requirements.



El Morro Historic Site is at the tip of the San Juan Peninsula. The Water Battery and terminus of the pre-project Promenade are in foreground.

Funding

Approved project budget:	\$1,376,054
Funds allocated in FY 2007:	\$200,000
Funds allocated in FY 2008:	\$0
Funds allocated in FY 2009:	\$600,000
Funds allocated to date:	\$800,000
Funds spent to date:	\$265,826

Restoration of El Morro Water Battery (Lead Agency: NPS)

Project Status

This project will stabilize and preserve the interior and exterior surfaces of the historic Water Battery area as well as adjacent exterior walls facing the shoreline. It will correct unsafe conditions resulting from hundreds of years of deterioration caused by the tropical climate and wind and wave erosion. The estimated cost of the project, which will be completed by park staff, is \$140,000.

On July 29, 2009, when \$100,000 was transferred into a SAJU account, NPS masons had already begun securing the area, installing scaffolding, and removing vegetation. The Water Battery Project is now well underway and expected to be completed before February 2010. The removal of vegetation has revealed a significant amount of damage to the walls, including a few large holes, where stones are missing.

Funding

Approved project budget:	\$140,000
Funds allocated in FY 2007:	\$0
Funds allocated in FY 2008:	\$0
Funds allocated in FY 2009:	\$100,000
Funds allocated to date:	\$100,000
Funds spent to date:	\$0



El Morro Water Battery and walls to be restored. The existing Promenade (“Paseo”) is shown in the foreground.

Clean and Stabilize Exterior Walls of El Morro (Lead Agency: NPS)

Project Status

This project involves cleaning, stabilizing, and restoring approximately 25,000 square feet of the exterior walls of El Morro adjacent to the Water Battery. The estimated cost of the project is \$350,000. This project is scheduled to begin in 2009 or 2010 after completion of the Promenade improvement/extension.

Funding

Approved project budget:	\$350,000
Funds allocated in FY 2007:	\$0
Funds allocated in FY 2008:	\$0
Funds allocated in FY 2009:	\$0
Funds obligated to date:	\$0
Funds spent to date:	\$0

Funding for all projects at San Juan NHS

Total settlement amount:	\$1,493,604
Funds allocated in FY07:	\$200,000
Funds allocated in FY08:	\$0
Funds allocated in FY09:	\$700,000
Funds allocated to date:	\$900,000
Funds spent to date:	\$265,826