

URBAN WATERS FEDERAL PARTNERSHIP PILOTS: NOMINATION FORM

GENERAL:

Proposed pilot name: ENLACE Caño Martín Peña Project: A Project of Social Justice, Environmental Restoration and Access to Urban Waters

- **Federal agencies active at the proposed locality:** US Army Corps of Engineers (USACE), US Fish and Wildlife, NOAA – National Marine Fisheries Service and EPA.
- **Other federal programs or initiatives that are planned or underway at this locality:** Department of Housing and Urban Development, Department of Transportation, Department of Education, Department of Energy, Department of Agriculture (USDA) – Urban Forestry, Small Business Administration U.S. Department of Energy (DOE), U.S. Geological Survey (USGS), and the U.S. Department of Commerce
- **Indicate EPA's existing level of involvement as Lead or Participant:** EPA R2 has been actively involved in the restoration efforts of the Martín Peña Channel since the San Juan Bay Estuary was designated as an Estuary of National Significance in 1992 and the San Juan Bay Estuary Program was established. Recently, Judith A. Enck, EPA Region 2 Administrator, announced the creation of a Federal Partnership for the Martín Peña Channel with the goal of identifying federal resources to further the restoration of the channel and the comprehensive development of the surrounding Special Planning District. In addition, Ms. Enck's participation in the President's Task for Status and Economic Development of Puerto Rico has brought the focus on the Martín Peña Channel Project into the spotlight of other federal agencies which are key players in this effort. On May 25, 2010, the SJBEP's Executive Director and the Director of the *Corporación del Proyecto ENLACE del Caño Martín Peña* (ENLACE Project) gave a presentation at the President's Task Force meeting in Washington, DC. During the presentation they requested the Federal Government engage as an active partner in the comprehensive development initiative of the ENLACE Martín Peña Channel Project which is critical to the restoration of the San Juan Bay Estuary ecosystem and showcases environmental justice issues to the surrounding communities.
- **Primary Regional Contact:** Evelyn Huertas, SJBEP Regional Coordinator & Program Manager (787) 977-5852, huertas.evelyn@epa.gov
- **Contacts from other program offices supporting this proposed pilot:** Terry M. Wesley, Regional Environmental Justice Coordinator, (212) 637-5027, wesley.terry@epa.gov

OVERVIEW OF LOCATION & LOCAL WATERBODY:



The Martín Peña Channel (MPC) is a tidal channel located at the heart of the San Juan Bay National Estuary. The communities adjacent to the MPC are located within five minutes of the Hato Rey Golden Mile, Puerto Rico's main financial district. The

MPC is approximately 3.75 miles (6 km) long and ranges in width from 6 feet (2 m) to over 400 feet (122 m). It is very shallow with an average depth of 4 feet (1.2 m). In the 1980s the western half of the channel was dredged to approximately 400 feet wide and 10 feet (3 m) deep. This western portion is now surrounded by mangroves and has a concrete boardwalk along one of its banks. In contrast, the eastern half of the MPC has been reduced to about 2 or 3 feet wide and its depth has been reduced to a few inches in some areas. Furthermore, some areas of the channel are obstructed nearly 100% therefore, disrupting the water flushing and circulation of the entire San Juan Bay Estuary system.

During the first half of the 20th century, impoverished people from rural areas of Puerto Rico who moved to San Juan built their houses in the mangrove wetlands bordering the MPC. Squatters continued building houses throughout the subsequent years without any support from the government in the planning of the infrastructure necessary to support these communities. For decades residents have used refuse and debris as fill material to build foundations for their homes. Non residents have used the MPC as a dumpsite, disposing of construction material on the banks. Household garbage, discarded furniture and appliances, plastics, car batteries and tires, and other toxic materials may be observed often in the channel. Along the banks, mangroves, upland, and wetland species are found interspersed with substandard dwellings that lack adequate infrastructure.



Over 3,000 structures discharge raw sewage to the MPC through direct pipelines, ditches, and a precarious storm water system, contributing to the environmental degradation of the channel and the San Juan Bay Estuary. For over 40 years, a combined sewer system which collected wastewaters from the Financial District office buildings and residential condos used to discharge over 1,000,000 gals/day of raw sewage into the MPC in dry weather. Fecal coliform concentrations in the channel's waters range from 270,000 to 2,000,000 colonies/100 ml, while the Environmental Quality Board (EQB) water quality standard is 200 colonies/100 ml. Mercury, lead, and PCBs have been detected in concentrations of concern. Frequent flooding constantly exposes the residents to the sewage polluted waters threatening the public health and damaging property. Skin rashes and respiratory conditions have been reported. Posts for power lines have been installed in unstable soils, including a 115 KW power line which crosses the MPC and the communities north. Public safety would be at serious risk and hundreds of residential structures could be left without power should a hurricane or an earthquake affect the area. The current street configuration does not allow for appropriate access of emergency rescue services.

In 1992, the San Juan Bay Estuary was designated an Estuary of National Importance and became part of the National Estuary Program. The MPC's hydrodynamics, water and sediment quality, dredging alternatives, and point sources were studied during the early years of the San Juan Bay Estuary Program (SJBEP) to gather information for the development of a Comprehensive Conservation and Management Plan (CCMP). Eight of the nine priority actions identified in the CCMP are related to the restoration of the MPC's water quality. This is the most important and critical environmental concern in the estuary. However, the environmental restoration of the MPC depends on solving social, housing, and infrastructure problems in the area. The SJBEP was instrumental in raising awareness among government officials, communities, users, and the general public about how the restoration of the MPC

could have a positive impact on the whole San Juan Metropolitan area in terms of recreation, transportation, and economy.

In 2002, The Puerto Rico Planning Board designated the MPC and the neighboring communities as a Special Planning District. In 2004, this special project managed by the Department of Public Works was transformed into a public corporation created by law known as the *Corporación del Proyecto ENLACE del Caño Martín Peña* (ENLACE). Representatives from eight surrounding communities and the private sector are members of the Board of Directors. ENLACE undertook an enormous task of developing the Land Use and Comprehensive Development Plan of the Caño Martín Peña Special Planning District (the “Plan”) through an intense community participation process. The Plan, which received the Paul Davidoff Award for Social Change and Diversity by the American Planning Board, was approved and signed by the Governor of Puerto Rico in 2007. The Plan proposes initiatives to resolve critical social, economic, urban, and environmental issues directly affecting the 27,000 inhabitants of the District’s eight communities who live in inadequate conditions within the 500 acres along the MPC. Key infrastructure, land use, relocation, and housing issues are addressed in the Plan and support the development of a mass transit public policy and the SJBE’s CCMP. The Plan incorporates dredging the MPC to reduce flooding hazards, promote biodiversity, and environmentally restore the SJBE. The implementation of the Plan, as well as the CCMP, will allow for waterway connections among strategic locations, an opportunity for economic development and a new waterfront for the SJ Metropolitan Area. Social capital development strategies include new approaches when dealing with violence, drug addiction, education and other issues that affect Puerto Rico.

Community concerns: The eight communities adjacent to this important natural resource are now suffering from the precarious infrastructure and housing conditions of improvised community settlements, as well as the contaminated condition of the MPC. During the past forty years, the environmental condition of the MPC has been extensively studied. However, most of the initiatives conceived to rehabilitate the MPC and the estuary overlooked the symbiosis between environmental degradation and poverty. In the past, multiple land use proposals by both the government and the private sector have included community displacement as a common denominator. Land speculation threatens the existence of these communities because of their strategic location, very close to the banking district and in the center of San Juan. Most residents of the designated relocation areas do not want leave their neighborhoods..

The communities have successfully engaged in the development of the Plan and in affecting change to the legislation. The involvement of local organizations is making its implementation feasible. It is very important for the residents that contributions to the advancement of the ENLACE Martín Peña Project, as they call their comprehensive development initiative, are consistent with the Plan and with the instruments designed for its implementation. Before the ENLACE Project and the comprehensive planning process, the dredging was seen by residents as a threat to the stability of the neighborhoods. The uncertainty regarding household relocation and unwanted gentrification became the spark for mobilization and community organizing, which resulted in strengthened grassroots institutions. Dialogue between groups and individuals produced tangible results. The communities, which have organized themselves as the “G-8, Inc.”, want to be part of the solution, prevent gentrification, guarantee affordable housing in the long term, address public health issues related to flooding, have access to housing relocation alternatives within their communities, guarantee access to the MPC through water

plazas once it is dredged, and benefit from the investment made in their communities as a way to promote entrepreneurship. Economic development and education are important concerns. Residents want continued participation in the decision making process and in the implementation strategies.

The environmental problems faced by these communities have been largely ignored by the government for many decades. Although during the past few years important steps have been taken in the right direction. Communities are concerned with the lack of sufficient funding for the main infrastructure that public works required for the environmental restoration of the MPC.

1. COMMUNITY NEED FOR ASSISTANCE:

There are eight inner city communities (squatter settlements) adjacent to the MCP with a population of 27,000 inhabitants. The MPC area is densely populated (28,000 persons/sq. mi.) The project area contains few large developable land parcels. More than half of its residents built their homes on government owned land and 48% of the housing units are occupied by renters. In terms of the education level, 48% of the population reached the ninth grade. The average income is below normal with 55% of households income below \$10,000/year and 65% of them living under poverty level. The official unemployment rate is 25%.

The MPC environmental restoration project, through its dredging and other infrastructure works, depends on the substantial rehabilitation of the existing homes and the development of new housing for residents that are requiring relocation. These homes must ensure that all residents have safe, decent and affordable housing. Because families have built their own housing throughout the years, there is a strong sense of belonging to the community. In accordance, public policy was designed to emphasize that whenever possible, housing opportunities within the communities must be provided for those families wishing to remain in the area.

2. GOVERNMENT AND NON-GOVERNMENT ENTITIES:

The Commonwealth of Puerto Rico enacted Law 489, also known as the Law of the Comprehensive Development of the MPC Special Planning District, in September 24, 2004,. Law 489 resulted from a participatory planning process. The bill was drafted with a bottom-up approach. It was approved unanimously in the Legislature, with support of all political parties. Law 489 includes the public policy related to the MPC and the Special Planning District, and creates numerous policy instruments to make the Plan's implementation feasible.

The participative planning process has resulted in the development of novel implementation strategies for the transformation of the social and urban sectors. Three major organizations are at the forefront in this process.

- First, the ENLACE Project is a redevelopment corporation created under Law 489 to bring together the community, the public, and private sectors and implement the Comprehensive Development and Land Use Plan for the MPC Special Planning District. It is designed to keep the long term policy beyond four-year government administrations and to keep partisan politics

aside. Out of the 13 members of its Board of Directors, six are named by the Mayor of San Juan and seven are named by the Governor. Ten of the 13 members are community leaders from the G-8, Inc. (described below) and representatives from the private sector. The Governor has two representatives and the Major has one representative on the Board.

- Second, the Martín Peña Channel Community Land Trust is a not-for-profit organization created also under Law 489 and designed to address land ownership issues in the District such as access to affordable housing, to promote private investment, manage a revolving fund to reinvest in public works in the community, ensure that the community benefits from the increase in land value due to governmental and private investments, and work to avoid involuntary displacement and gentrification. Both mechanisms allow urban reform to occur simultaneously with the strengthening of social capital and economic development.
- Third, the G-8, Inc. was created. For the first time, 12 community based organizations in Barrio Obrero, Barrio Obrero Marina, Buena Vista Santurce, Buena Vista Hato Rey, Península de Cantera, Parada 27, Las Monjas, and Israel-Bitumul have joined efforts and defined a common agenda. The G-8, Inc. is a nonprofit corporation that brings together these organizations and works closely with the ENLACE Project and the Land Trust to ensure widespread citizen involvement in the implementation of the District Plan. The ENLACE Project has built effective and strong partnerships with the organized communities represented by the G-8, Inc., the private sector, and government authorities to prioritize developing an agenda to overcome poverty and attain social and environmental justice.

In addition to the municipal and state government, there are many other Commonwealth partners involved. These include the *Compañía para el Desarrollo de la Península de Cantera*, the Department of Natural and Environmental Resources (DNER), EQB, the Puerto Rico Planning Board, PR Aqueducts and Sewers Authority (PRASA) and PR Electric Power Authority. The *Compañía para el Desarrollo de la Península de Cantera* is a redevelopment authority, predecessor to the ENLACE Project which works with the comprehensive development of the Península de Cantera, one of the communities bordering the MPC.

The ENLACE Project has developed long term, strong partnerships with many local organizations and community groups which are committed to the comprehensive development of the area. This includes the restoration and improvement of access to urban waters and surrounding waterways. The participating organizations include: Banco Popular de Puerto Rico, Santander Bank, Berkan, Méndez & Associates, SMG Puerto Rico, Doubleday, San Juan Bay Estuary Program, Inter American University of Puerto Rico, Sacred Heart University, the Polytechnic University, and the University of Puerto Rico including its School of Law and the School of Social Work. In addition, the ENLACE Project relies on more than 60 organizations and community groups as collaborators.

Financing solutions for housing strategies will require the intervention of municipal, state, and federal agencies, as well as innovative initiatives that incorporate the private sector (profit and non-profit organizations.) Strategies must include new construction homes, special needs housing, rehabilitation and modification of existing structures, commercial sites, rental housing, and public housing. HOPE IV, Section 8, HOME, and low income housing tax credits are among specific programs to be considered.

3. PROJECTS: Ongoing & potential projects/activities (next 2 years).



- **Channel Dredging:** To re-establish the hydraulic connection between the San José Lagoon and the San Juan Bay by dredging the MPC to a width of 150 feet and a depth of 10 feet. This activity is estimated to cost \$150M and the funds have already been authorized by Congress.
- **Public access to waterways:** Along the banks of the MPC, there will be a conservation area for wetlands, mainly mangroves, interrupted by eight waterfront plazas.
- **Filling of artificial depressions at nearby lagoon:** The estimated 700,000 cubic yards of dredge material will be used to fill several depressions at the adjacent San José Lagoon which are currently anoxic. This will increase the environmental benefits of the dredging.
- **Relocation of families:** Over 2,300 families will need to be relocated to implement the Plan. One thousand (1,000) families are located in right-of-way or footprint of the proposed channel. Of these, 300 have already been relocated. Each demolition and relocation is estimated at \$125,000. To support this, 1,300 new public housing units will need to be constructed. The total amount of funds needed to relocate the families could reach \$290M. About 300 families have already been relocated. The Commonwealth Government is determining if they should include a \$20 million dollar commitment in the latest government debt issuance to fund some of these relocation efforts.
- **Wastewater and Drinking Water Infrastructure:** Several sewer lines must be relocated including the Rexach Avenue 66” diameter sewer line and the San José Community 66” diameter sewer line. A complete sewer system is needed in portions of the area. A drinking water line, known as the Borinquen 36” line, must also be relocated. The relocation cost of these lines is estimated at \$35 M. A vacuum sewer system has already been constructed at the Barrio Obrero Marina sector and the costs were over \$6.5M.
- **Construction of Wastewater Trunk Sewer in the Financial District:** EPA has taken several enforcement actions against PRASA related to illegal discharges of wastewater into the MPC. In 2007 PRASA pled guilty to a 15 count indictment that charged violations of the CWA in the MPC, among others violations. One of the conditions of probation was that PRASA prepare the design of the sewer system for the Financial District in Hato Rey (currently a combined sewer). The design was completed at a cost of \$3.5M. In addition, as part of the settlement conditions of a civil case regarding CWA violations, PRASA agreed to construct the sewer system. Construction, which will have a 5-year duration, is scheduled to start in 2016. In the meantime, all the dry weather flow has been diverted to the Puerto Nuevo Regional Wastewater Treatment Plant. During wet weather, only a portion is discharged into the MPC, receiving disinfection by chlorination before being discharged.

- **Relocation of the Barbosa Bridge:** The relocation of the Barbosa Avenue Bridge was necessary to allow enough height for the dredge to go under when dredging activities begin. This reconstruction of this bridge has already been completed at a cost of \$35M.
- **Improvement of socio-economic conditions:** A business incubator was developed and several new businesses have been developed in the area, including an ecotourism small enterprise and a small recycling community business owned by community residents.
- **Other Infrastructure Projects:** In addition to relocating/constructing new wastewater and drinking water lines, new streets, storm water sewer systems, and electric power lines, among other utilities, must be constructed.
- **Total Project Cost:** The total cost of the project is estimated in \$744M. The Government of Puerto Rico has invested approximately \$70M in the area during the past five years, including the relocation of the Barbosa Bridge (\$35M), relocation of 150 households, the Barrio Obrero Marina Vacuum Sewer System, as well as other housing projects. Another \$25M was recently assigned to this project. \$150M was authorized for the channel dredging under the Water Resources Development Act of 2007 requiring 40% state matching funds. The Government of Puerto Rico has set aside \$1.5M for the Dredging Feasibility Study for which a contractor has been selected.

The ultimate goal of dredging the MPC is to restore the health of the ecosystem while attaining social and environmental justice. Social and environmental justice are the driving forces behind the ENLACE Project's day-to-day efforts. The benefits of implementing the Plan go beyond the MPC and its surrounding eight communities. As recognized by researchers and the media, it is probably the most important comprehensive development initiative currently underway in Puerto Rico.

Some of the ongoing activities, as well as activities to be carried out during the next two years, include:

- Feasibility Report for the environmental restoration of the MPC. This activity is led by the USACE, together with the ENLACE PROJECT. Several federal and Puerto Rico government agencies, universities, and not-for-profit organizations, including EPA and the SJBEP, participate in the Technical Committee. The communities are part of the process through the G-8, Inc. A draft feasibility report is expected to be completed on June 2011, pending congressional appropriations for FY2011. \$150 M for the environmental restoration of the MPC was authorized by Congress through the Water Resources Development Act of 2007, conditioned to the Secretary of the Army's approval of the Report.
- Removal of aquatic vegetation on the easternmost segment of the MPC that is close to the San José Lagoon.
- Acquisition and demolition of 70 structures located in the relocation area adjacent to the MPC. Relocation of an additional 22 families is underway. Further relocation is possible pending funding. There are 150 housing units available for sale or rent in the Special Planning District, which present relocation alternatives. However, ENLACE Project does not have the funding to buy the units.
- Infill housing in Barrio Obrero. ENLACE PROJECT is currently buying 63 parcels, 36 of which are candidates for a scattered housing project of 110 units. This project is in the predevelopment phase, and requires funding for development. ENLACE PROJECT has funding to rehabilitate 30 housing

units that will be offered to families living in the relocation area along the MPC. The land will be part of the Caño Martín Peña Community Land Trust.

- Mixed use development in the Quisqueya Avenue - ENLACE PROJECT is buying a 3-acre lot. Predevelopment studies are being carried out but financing is a constant challenge. The project will include 80 housing units as relocation alternatives and will be developed together with the Caño Martín Peña Community Land Trust.
- Environmental upgrading of existing homes for energetic and water consumption efficiency.
- Incubation of 40 new micro businesses and stabilization of existing businesses. The ENLACE PROJECT has a small micro loan revolving fund.
- Environmental awareness projects including a fifth edition of the Caño Reggaeton Contest (geared towards elementary school children) and the publication of the oral history project results, among many others.
- Development of design guidelines for the water plazas that will be constructed along the MPC once it is dredged, as a means to foster healthy interaction between the community and the natural environment.
- Relocation of the 66” diameter San José trunk line – The ENLACE PROJECT will be designing the project; funding for construction is pending.
- Social development activities include violence prevention through conflict management and sports, (Community Basketball), assistance to local schools, a literacy program, among many others.
- Activities to support grassroots organizations and leadership development - A wide array of activities are underway and planned for the next two years.

Some of the initiatives that ENLACE PROJECT has carried out to address environmental issues include:

- Completion of over 18 technical studies necessary to comply with the environmental regulations as well as coordination of efforts to finance the dredging of the MPC. The ENLACE Project is working with the US Army Corps of Engineers in the Feasibility Report as per the 2007 Water Resources Development Act.
- Two surface debris clean-up activities which resulted in the removal of over 885 tons of debris and the recuperation of over 1,500 pounds of recyclable material. Over 500 volunteers and government employees participated in these activities. Over 500 elementary school students visited the channel area during the clean-ups and participated in the recycling efforts.
- The construction of the first vacuum sewer system in Puerto Rico, and the first sewer system in communities along the MPC built since the 1970’s. The project cost was over \$6.5M and was financed by the Government Development Bank, the Puerto Rico Highway and Transportation Authority and the ENLACE Project. Area communities along the MPC Barrio Obrero Marina lacked a sewer system resulting in untreated wastewater was reaching the MPC through the storm water system.
- One-on-one orientation to the approximately 600 households that will be relocated to obtain the right of way for the dredging project. As a result of understanding the unhealthy state of the MPC, residents have understood the need for its dredging and have become the Project’s strongest allies to prevent further colonization of the degraded MPC. Almost 300 household relocations have been completed in the District by the ENLACE Project and other organizations.

- Several environmental awareness activities, such as:
 - The *Caño Reggaeton* Contest and *De Teatro por el Caño* raised environmental awareness in elementary and intermediate school children as participants write and sing original lyrics or write and perform plays about environmental issues. The *Caño Reggaeton* Contest and the theater competitions impacted over 3,000 students from 17 public and private schools during its four years. These activities have prevented children from going into the polluted MPC chasing after turtles.
 - The Book *Cuentos del Caño* is an interactive children's book written and designed to raise children's awareness about the history of their communities and the importance and potential beauty of their surrounding natural environment. 2,000 copies were donated by Editorial Santillana. In 2007, story-telling activities were performed at approximately 2,000 elementary schools by over 100 volunteers.
 - The elaboration of two murals about the MPC in public schools developed by students under the guidance of renowned artists as part of an agreement with the Inter American University of Puerto Rico. A third mural of environmental content was done on a bridge above the MPC with a donation from the Toyota Foundation, among others.
 - An oral history project developed with the SJBEP and the Inter American University.
 - Training to teachers of local schools on the MPC's environmental issues.
 - Two micro businesses have been incubated in coordination with the SJBEP and the Inter American University. The ecotourism venture *Excursiones ECO* is led by a young community member and *Martín Peña Recicla* (Martín Peña Recycles) is a community project aimed at decreasing the amount of trash generated, raising awareness about the importance of recycling, and collecting recyclable materials while generating an alternate form of income for the community of Barrio Obrero Marina.
- Development of educational material such as three videos, six editions of the newsletter *Boletín Informativo*, comics, among others.
- Conferences and guided tours.

ADDITIONAL INFORMATION:

The biggest hurdle to overcome in order to move forward to achieve the goals of the ENLACE Project and the SJBEP's CCMP is to guarantee that this project remains a priority in times of reduced budgets. The improvement of the water flow would lead to environmental improvement of the Martín Peña

Channel and would reconnect the eight communities adjacent to it to their long history of interaction with the land and water. The dredging of the Martín Peña Channel will also improve the quality of life and living conditions of the communities that will be relocated by this action. People will be relocated to areas free from the environmental and health hazards associated with the polluted channel. The new location should provide protection against recurrent street flooding. Also, families will have access to better housing facilities and basic infrastructure like sewage systems and garbage collection. The dredging of the Martín Peña Channel will restore the hydrodynamics of the system and the elimination of the pollution sources will cause a significant improvement in the quality of the waters and sediments. Abundance and diversity of fauna and flora species should also increase. Also, new opportunities will be available for recreational activities such as bird watching, rowing and sightseeing.

The implementation of the ENLACE Project Plan and the restoration of the Martín Peña Channel will open up the whole San Juan Bay Estuary for the enjoyment of all citizens while becoming an example of how empowered communities can work together with state and local agencies and the private sector in improving their quality of life and while restoring an invaluable urban water body.