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ENLACE Caño Martín Peña: A Restoration and Resiliency Project

An opportunity to transform the San Juan Metropolitan Area

Testimony by:

Lyvia N. Rodríguez Del Valle, Executive Director

Corporación del Proyecto ENLACE del Caño Martín Peña

Hearing: "Response and Recovery to Environmental Concerns from the 2017 Hurricane Season"

Tuesday, November 14, 2017 at 10:00 AM

Subcommittee on Environment

Executive Summary

Prior to María, the communities along the eastern half of the Caño Martín Peña, a tidal channel within the San Juan Bay Estuary in Puerto Rico, faced public health and safety challenges directly associated to the environmental degradation of this ecosystem. The Caño is currently clogged, and the adjacent communities lack basic infrastructure, thus heavy rainfalls translated into floods with highly polluted water. Studies have documented the public health and safety consequences stemming from frequent floods. Hurricanes Irma and María exacerbated these conditions. Over 1,000 homes suffered significant damages.

The ENLACE Caño Martín Peña Project presents a unique opportunity to increase Puerto Rico's resiliency to disasters, investing in the ecosystem restoration of the Caño and in sound infrastructure and related acquisitions and relocations / housing. It will generate new economic development opportunities for Puerto Rico, while reducing the vulnerability of critical infrastructure, such as the Luis Muñoz Marín International Airport. It will also transform the city, by providing a new inland waterfront, and recovering its environmental assets. The ENLACE Project is a model of equitable development, resiliency, and participatory democracy. The *Corporación del Proyecto ENLACE del Caño Martín Peña* (ENLACE), which is a government corporation, works together with the organized community through the grassroots G-8, with an internationally re known community land trust, and with over 100 partners from the private and public sectors and 400 volunteers to implement the ENLACE Project.

There is a comprehensive development plan, policy and an institutional framework, as well as a feasibility report and an NEPA compliant environmental impact statement for the ecosystem restoration piece, elaborated under the Water Resources Development Act of 2007. ENLACE, a government corporation that is the non Federal sponsor, was the author of this report, adopted by Assistant Secretary of the Army for Civil Works. The US Army Corps of Engineers works on the design. The ecosystem restoration project is ready to move into construction. Other components of the ENLACE Project are shovel ready.

ENLACE has leveraged over \$100 million and other resources from local, state, and to a lesser extent, the federal government, local and US foundations, and private partners towards implementing the comprehensive development plan. At a time of severe political, economic, fiscal, and financial challenges, Puerto Rico's capacity to further invest in the ENLACE Project is extremely limited. Support from the US federal government is crucial. Congress is urged to pursue the inclusion of this project and all of its components in any upcoming disaster recovery bill for Puerto Rico.

Testimony

The Caño Martín Peña is a 3.75 mile long tidal channel located at the heart of the San Juan Bay Estuary, which is part of EPA's National Estuary Program for its national significance. It stretches across San Juan, connecting the San Juan Bay to the west, home Puerto Rico's busiest port, to the inland San José lagoon to the east, vital for the Luis Muñoz Marín International Airport storm water management.

Before Hurricanes Irma and María, the Caño was already in critical condition. From a 200 to 400 feet wide navigable channel, today the Caño is blocked. In the 1930s, after two hurricanes and in the midst of an economic depression, in part due to the collapse of the sugarcane monoculture, peasants migrated to San Juan. The wetlands along the Caño, then at the outskirts of the city, became home to informal settlements. Five generations later, and after decades of neglect and marginalization, 25,000 US citizens in Puerto Rico's most densely populated area are continuously at risk of disease and severe flooding with wastewater. The eight communities¹ that survived eviction and gentrification suffer the consequences of environmental degradation.

A third of the communities lack a sewer system, whereas the storm water system has collapsed. With heavy rainfalls, raw sewage streams into people's homes through the showers and toilets, from the streets, and the Caño itself. The effects on the environment are also severe. As water and sediments stagnate, the San José lagoon, critical for the appropriate functioning of the airport's storm water management, has significantly lost depth and its area is reduced. Floods are no longer local. They affect critical infrastructure and other upscale neighborhoods in San Juan.

Before Irma and María, the Caño was also a source of inspiration, creative policy making, and participatory democracy. As a result of over 700 community participation activities between 2002 and 2004, the ENLACE Caño Martín Peña Project emerged as an innovative environmental justice and social transformation initiative that pursues a livable, inclusive and resilient city through the ecosystem restoration of the estuarine channel, affordable and safe housing, adequate infrastructure, and quality

¹ These communities are Barrio Obrero (Oeste and San Ciprián), Barrio Obrero Marina, Buena Vista Santurce, Parada 27, Península de Cantera, Israel Bitumul, Buena Vista Hato Rey, Las Monjas, and Parada 27. All, but the Península de Cantera, are part of the Caño Martín Peña Special Planning District.

public spaces. Building upon the capacities of its ~25,000 residents, the organized communities, their partners and the institutions they created were already working on the implementation a comprehensive development plan that is the backbone of transforming the city, generating equitable social and economic development opportunities for Puerto Rico.

Key components of this plan include infrastructure, such as storm water and wastewater sewer systems and potable water distribution systems; the acquisition and demolition of structures and relocation of eligible occupants; and, dredging the Caño to restore the flow of water between the San Juan Bay and the eastern Estuary. To date, 3 of 8 critical infrastructure projects have been completed, over 600 families have been relocated into safe and decent housing, and the Caño Martín Peña Ecosystem Restoration Project authorized under the Water Resources Development Act of 2007 is in the preconstruction, engineering, and design stage, ready to go into construction.

Once completed, the ecosystem restoration of the Caño will restore the flow of water between the San Juan Bay and the San Jose lagoon, uplifting over 6,600 acres of the San Juan Bay Estuary and increasing biodiversity and essential fish habitats. Puerto Rico will be able to take advantage of a navigable Caño and its new waterfronts, reconnecting points of historical, cultural, and tourist interest throughout the Metropolitan Area. Moreover, health conditions for over 15,000+ persons affected by frequent floods with raw sewage and mosquito transmitted diseases (dengue fever, zika, chikungunya) are expected to improve. Partial estimates point that the project will benefit the economy by \$587 million, whereas avoided costs include estimated losses of \$700 + million during a 100 year recurrence flood event. Over 4,000 jobs will be created only during construction of the ecosystem restoration project.

The institutional design to implement the ENLACE Project has also gained recognition, and has proven to be effective during times of crisis. The pioneering PR Law 489 of September 24, 2004, as amended (Law 489-2004), which resulted from the grassroots participatory planning process, created the government corporation *Corporación del Proyecto ENLACE del Caño Martín Peña* (ENLACE), that implements the comprehensive development plan. It was designed to ensure long term stability despite changes in governments, and a key, protagonic role for the communities and the private sector in

obtaining and overseeing the resources implement the ENLACE Project. In 2015, ENLACE became one of the few non Federal sponsors to successfully complete a Feasibility Report and Environmental Impact Statement that complies with the federal standards and approved by the Assistant Secretary of the Army for Civil Works. Currently, ENLACE works with the US EPA in the Caño Martín Peña Urban Waters Federal Partnership. Over 100 private sector partners and 400 volunteers work with ENLACE.

Law 489-2004 also created the *Fideicomiso de la Tierra del Caño Martín Peña (Fideicomiso)*, a private, not for profit community land trust. The Fideicomiso was designed to prevent gentrification as an unintended consequence of the Caño Martín Peña Ecosystem Restoration Project. Instead of displacing the poor, it regularizes land tenure of approximately 1500 families living in informal settlements through collective land ownership and individual surface rights. Coupled with promoting private investment and reinvesting future increases in land value in the community, the Fideicomiso is key for redevelopment that guarantees long term housing affordability. During the planning process, community leaders formed the G-8, Inc., a community based non-profit that unites 12 grassroots organizations, to be an effective partner in revitalization. Residents take pride in their efforts, their strategic place in the heart of San Juan, and the great potential of their comprehensive plan.

Hurricanes Irma and María

After hurricanes Irma and María, as has happened with every previous storm, the conditions of the Caño worsened. These storms affected Puerto Rico's poor and vulnerable communities in a distinct way. The communities along the Caño were severely flooded with wastewater for several days. Irma had already blocked many of the outlets of the storm water system into the Caño. With María, over 50% of the trees along the eastern half of Martin Peña fell, further blocking the Caño. The frequency of floods has increased. We have documented floods even on a sunny day, or after a 15 minute rainfall. People live in fear of the rain, in a tropical island.

Around 1,000 homes had their roofs completely or partially blown away, 75 of which were destroyed. Many families lost most of their material possessions, while others lost their sources of income. As in most of Puerto Rico, today the communities along the Caño do not have power, and

although there is access to water, there are concerns regarding its safety. Communications are still limited. A recent report from Rolling Stone magazine called this a disaster within a disaster.

Right after hurricane Maria, the neighbors did everything they could to help themselves and each other. In less than a day, they had removed fallen trees, cleared the streets from debris, and started to reconstruct at least a portion of the roofs with the materials they were able to recover. Since María, the Fideicomiso, G-8, and ENLACE have been at the forefront of disaster relief and recovery efforts in support of the communities. We have been requesting, receiving and distributing donations of supplies, food and water, tarps; as well as coordinating and facilitating external aid. During the first month after María, we recruited close to 500 external volunteers, removed 122 truckloads of vegetative material, cleaned the flooded homes of the elderly and sick, made referrals of families in need to community health centers, provided over 800 tarps, assisted over 400 families with FEMA individual assistance applications, worked to ensure over 500 blue roof applications were processed, distributed around 5,000 hot meals, 1,500 canned food bags, over 800 mosquito nets, 4,000 mosquito repellents as well as cash to 150 families, and coordinated cultural activities. Three community centers have now solar power, two of which provide free Internet access to residents. Over 40 organizations have donated supplies. The 15 years of community organizing and partnership building in Puerto Rico and abroad proved to be critical for the communities facing a disaster that overwhelmed the government's capacity to respond. So have the relationships built with the federal and local institutions.

Despite these efforts, there are still significant health concerns directly related to the environmental degradation of the Caño and the effects of the hurricanes. Previous health² and safety issues have heightened. Currently, we are dealing with a rat infestation due to the presence of debris in the streets, and to the disturbance of the Caño, where they used to remain. This increases the risk of

² Increased flooding conditions and the lack of infrastructure has led to a prevalence of 31% cases of gastrointestinal diseases in the District, as compared to 22% in Puerto Rico. District residents exposed to flood waters had twice the likelihood of developing gastrointestinal diseases than their neighbors not exposed to flood waters. See 2012 Roubert, Mayra. Prevalence of Gastrointestinal Symptoms among Residents of Caño Martín Peña Communities. Ponce School of Medicine and Health Sciences. Another study documented that children ages 5-7 had higher asthma and skin allergies prevalence than other children in comparable age groups in Puerto Rico. The sample reflected a strong trend that the closer to the CMP children live, the higher the prevalence of such diseases.

leptospirosis, a disease that can be fatal. Caymans, an exotic species that has been present at the Caño for several years, are now approaching residential areas. We fear mosquito borne diseases might return to epidemic levels. The prevalence of gastrointestinal and allergic diseases in the Caño is already significantly higher when compared to Puerto Rico, due to the contact with highly polluted waters. There is also risk of increased asthma and other respiratory diseases, as a result of mold and the use of generators.

As we continue to work on health related issues, such as vector control, as well as relief. We are also starting to shift our work towards recovery. To move the project forward, be able to recuperate the Caño Martin Peña, and reach the goals of long term resiliency and just and equitable development, investment of multiple sources is needed. The key elements of the Comprehensive Development and Land Use Plan that will lead to the ecosystem restoration of the Caño entail a total estimated investment of \$800 million, of which \$275 million are needed for housing and redevelopment, \$325 million for infrastructure, including green infrastructure strategies and power microgrids; and \$200 million for the dredging of the Caño, water plazas, landscape, and maintenance. According to the programming, some of the relocations and acquisitions as well as infrastructure projects must occur prior to and parallel to the dredging. Some of these projects are currently shovel ready.

ENLACE has leveraged over \$100 million and other resources from local, state, and to a lesser extent, the federal government, local and US foundations, and private partners towards implementing the comprehensive development plan. Under WRDA 2007, Congress authorized \$150 million for the ecosystem restoration federal project, which according to the Feasibility Report and the most recent estimates, currently amounts to \$215 million. Of these, \$140 million is the federal share and \$75 million is the local cost share. Under ordinary processes, shall there be enough new starts for ecosystem restoration projects in the FY'19 budget, the Assistant Secretary of the Army for Civil Works could include phase one for construction in the upcoming workplan.

On December 2016, the Bipartisan Congressional Task Force on Economic Growth of Puerto Rico created under the Puerto Rico Oversight, Management, and Economic Recovery Act (PROMESA),

included in its report that “the project to restore Caño Martín Peña can provide a significant return on investment for the federal government in terms of improving the economy, protecting public health, and restoring the natural environment in some of Puerto Rico’s most distressed communities. The Task Force recommends that the U.S. Army Corps of Engineers and the non-federal sponsor ENLACE finalize the Project Partnership Agreement (PPA) for the project as soon as feasible; that Congress consider appropriating funding to construct this project; and that Congress consider relaxing the cost-sharing obligations of the non-federal sponsor or otherwise taking steps to ensure that the government of Puerto Rico’s fiscal crisis does not result in forward progress on this project being halted.”

At a time of severe political, economic, fiscal, and financial challenges, Puerto Rico's capacity to further invest in this Project is extremely limited. Support from the US federal government is crucial. That is why I urge Congress to pursue the inclusion of this project and all of its components in any upcoming disaster recovery bill for Puerto Rico. The ENLACE Project is a model of equitable development, resiliency, and participatory democracy.

This project is necessary and should be a priority due to its serious repercussions in the San Juan Bay Estuary, public health and safety, and for the opportunities it presents for Puerto Rico’s long term resiliency and sound economic development. Further, it presents an opportunity for an emblematic, model of sound development that benefits all sectors of society, with well documented benefits, a plan, programming, and the institutions and overall support to implement it. Any funding related to Martín Peña should promote on site rehabilitation rather than displacement and gentrification.

No person should live fearing the rain, when there is a solution at hand. The community has done everything in its power, and now there is a window of opportunity to make their project become a reality.

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Inquiries

For further information and support documents, please contact Lyvia Rodriguez Del Valle at lrodriguez@martinpena.org or at (787)729-1594 and (787)548-4973.

Additional materials:

Documents:

Dossier: Transforming the City (2014): <http://cano3punto7.org/nuevo/pdf/transforming.pdf>

Dossier: Fideicomiso de la Tierra del Caño Martín Peña (2016):

https://issuu.com/canomartinpena/docs/dossier_ft_final_oct2016

Health Impact Assessment of the Environmental Restoration of the Caño Martín Peña

https://issuu.com/canomartinpena/docs/hia_cmp

Feasibility Report and Environmental Impact Statement of the Caño Martín Peña Ecosystem Restoration Project:

<http://dragadomartinpena.org/>

Videos:

Agua Mala (2012): <https://www.youtube.com/watch?v=rPPbFM-Rvok>

https://www.youtube.com/watch?v=_naav6Ro3eo

World Habitat Award: Fideicomiso de la Tierra (5 mins): <https://www.youtube.com/watch?v=mNbjXzgnR88>

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<https://insideclimatenews.org/news/04102017/puerto-rico-health-crisis-hurricane-maria-poverty-water-power-epidemic-risk-photos>