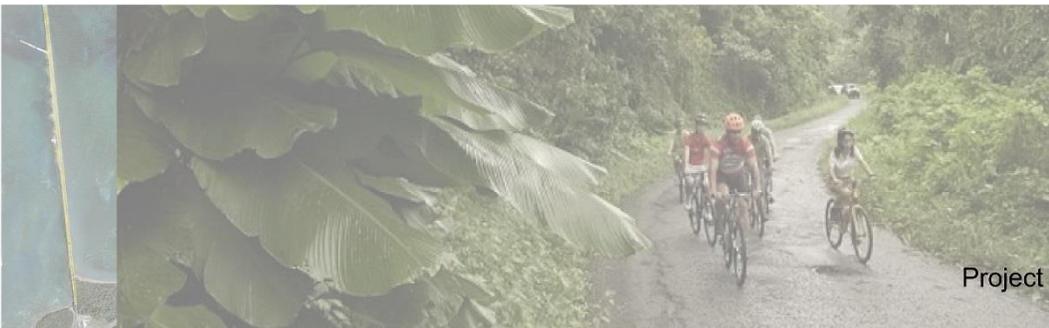
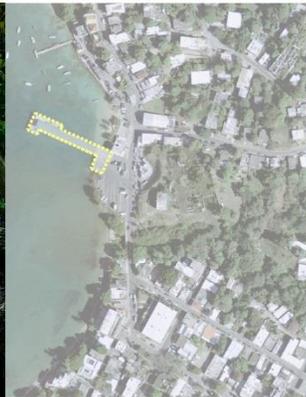




Eastern Puerto Rico Regional, Multimodal Transportation Plan

Leveraging Roosevelt Roads to Connect the Islands
of Vieques and Culebra to Jobs and Services



Project Website: bit.ly/1fqCBx8

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April 24, 2014

The Honorable Anthony Foxx
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: TIGER VI Discretionary Grant Proposal - Eastern Puerto Rico Regional Multimodal Transportation Plan

Dear Secretary Foxx:

We are excited to submit this application for \$640,000 in TIGER VI discretionary grant funding, in support of the \$800,000 Eastern Puerto Rico Regional Multimodal Transportation Plan.

The external funding from the U.S. DOT TIGER VI Discretionary Grant will allow the Government of the Commonwealth of Puerto Rico to initiate the proposed planning project object of this grant application. Its main scope is to build upon multiple conceptual transportation alternatives in order to advance them to more specific planning and design stages and make them viable for capital improvement projects. These projects will be refocused to provide safe, resilient connections to the people of the secluded island-municipalities of Vieques and Culebra, to the jobs and services hubs of Roosevelt Roads Naval Station, Ceiba, Humacao, Naguabo and Fajardo. It will also provide new, environmentally-friendly transportation options for nature-loving tourists to easily and safely get to these US-flagged Caribbean island-municipalities.

With that in mind, the elements identified in the proposal are consistent with TIGER VI mission and goals. The Puerto Rico Infrastructure Financing Authority and its collaborative partners, the Land Redevelopment Authority for Roosevelt Roads Naval Station and the Department of Economic Development and Commerce, are committing \$160,000 in non-federal funds toward the project. These funds are approved for this purpose and available for obligation immediately upon award of a TIGER grant.

Thank you for this opportunity to apply. If you have any questions, do not hesitate to call me direct.

Sincerely,

Grace M. Santana-Balado, Esq.
Executive Director

PO Box 41207
San Juan, PR 00940-1207
Telephone (787) 763-5757
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Acronyms and Abbreviations

Acronyms

• AFI	Puerto Rico’s Infrastructure Financing Authority
• ATM	Puerto Rico’s Marine Transportation Authority
• CO ₂	Carbon dioxide
• DNER	Department of Natural and Environmental Resources
• DoD	US Department of Defense
• BRAC	US Department of Defense’s Base Realignment and Closure
• EPA	Environmental Protection Agency
• INTENE	Northeast Technology Initiative, Inc.
• LRA	Local Redevelopment Authority for Roosevelt Roads
• NGO	Non-Government Organization
• PR	Commonwealth of Puerto Rico
• PRCCC	Puerto Rico Climate Change Council
• PRDEDC	Puerto Rico Department of Economic Development and Commerce
• NSRR	Former Roosevelt Roads Navy Base
• TIGER	Transportation Investment Generating Economic Recovery
• UNWTO	United Nations World Tourism Organization
• US	United States of America

Abbreviations

• Commonwealth	Commonwealth of Puerto Rico
• Island-municipalities	the Puerto Rican islands of Vieques and Culebra
• Km	kilometers
• Lbs.	pounds
• m	meter
• mi	mile
• nm	nautical mile
• PLAN	Eastern Puerto Rico Regional, Multimodal Transportation Plan

Notes

Use of the term “ferry”. The term “ferry” is used indistinctively in Puerto Rico to refer to both passenger boats and freight/cars ferry services. Such mentions in this document refer to this combined service (passenger-only, cargo, and passenger + cars ferry vessels).

Submittal Website. Digital material referenced in this narrative and related to the TIGER grant application can be found in the following link:

<http://www.bgfpr.com/2013/Grants/TIGERGRANTS2014/TG2014EasternMultimodal.html>

US Department of Transportation TIGER Discretionary Grants

Project Title: Eastern Puerto Rico Regional, Multimodal Transportation Plan; Leveraging Roosevelt Roads to connect the islands of Vieques and Culebra to Jobs and Services

Location: Puerto Rico (Vieques, Culebra and Ceiba-Naguabo)

Type of Application: Planning – Regional Plan – Rural Area

Eligible Applicant: U.S. Territory (Congressional District “PR-all”)

Applicant Organization Name: PR Infrastructure Financing Authority (grantee); Roosevelt Roads Local Redevelopment Authority (co-sponsor)

TIGER funding being applied for: \$640,000.00 (80% of the total project cost)

Additional Project Information: bit.ly/1fqCBx8

Synopsis

For decades, the US territory of Puerto Rico has had one of the worst poverty and unemployment levels of all jurisdictions within the United States. Within Puerto Rico, the eastern municipalities of Ceiba and Naguabo and in particular the islands of Vieques and Culebra have consistently reflected even worse indicators. Given these facts, it is fair to say that Vieques, Culebra and parts of eastern Puerto Rico are among the United States’ poorest and most economically distressed regions.

Vieques and Culebra are populated island-municipalities that are physically isolated from the rest of the municipalities; their residents (US citizens) depend on a single maritime route and expensive air transportation to obtain essential goods and services. On the other end, Ceiba and Naguabo are in need of better surface connections between their urban centers and the new economic development –thus job creation- opportunities that are being created on Ceiba’s former Naval Station Roosevelt Roads. The proposed plan will address the fact that the overall transportation infrastructure in the study region is in a state of disrepair and susceptible to the effects of climate change.

The proposed regional planning project subject of this TIGER grant application aims to develop a regional, multimodal transportation plan linking Vieques-Culebra to Roosevelt Roads in order to (i) create new opportunities for mobility of people and cargo (via a new maritime route) between Vieques, Culebra and the rest of Puerto Rico; (ii) connect the economically-disadvantaged residents of Vieques and Culebra to the economic activities (and basic services) planned for Roosevelt Roads; (iii) enhance multimodal connections in Vieques and Culebra and between these island-municipalities to the East of Puerto Rico for residents and visitors; and (iv) repair and enhance Roosevelt Roads’ surface connections with neighboring urban centers of Ceiba and Naguabo.

The main goal of the proposed plan is to build upon existing conceptual transportation proposals in order to move them to more advanced planning/design stages and make them viable for capital improvement projects.

I. Project Description

BACKGROUND

During the past decades, various municipalities in the Eastern Region of Puerto Rico (PR) have experienced an economic and land use transformation from being military facilities to potential tourism destinations. However, transportation inefficiencies have affected their competitiveness, impacting the movement of residents, freight, including goods necessary for daily and economic activities, as well as visitors and tourists.

The municipalities of Vieques and Culebra (the “island-municipalities”) are populated islands located at the East of PR. Both are physically isolated from the rest of the main island, and their residents depend on a single maritime transportation route to and from Fajardo to obtain essential goods and services (e.g. health and educational services).

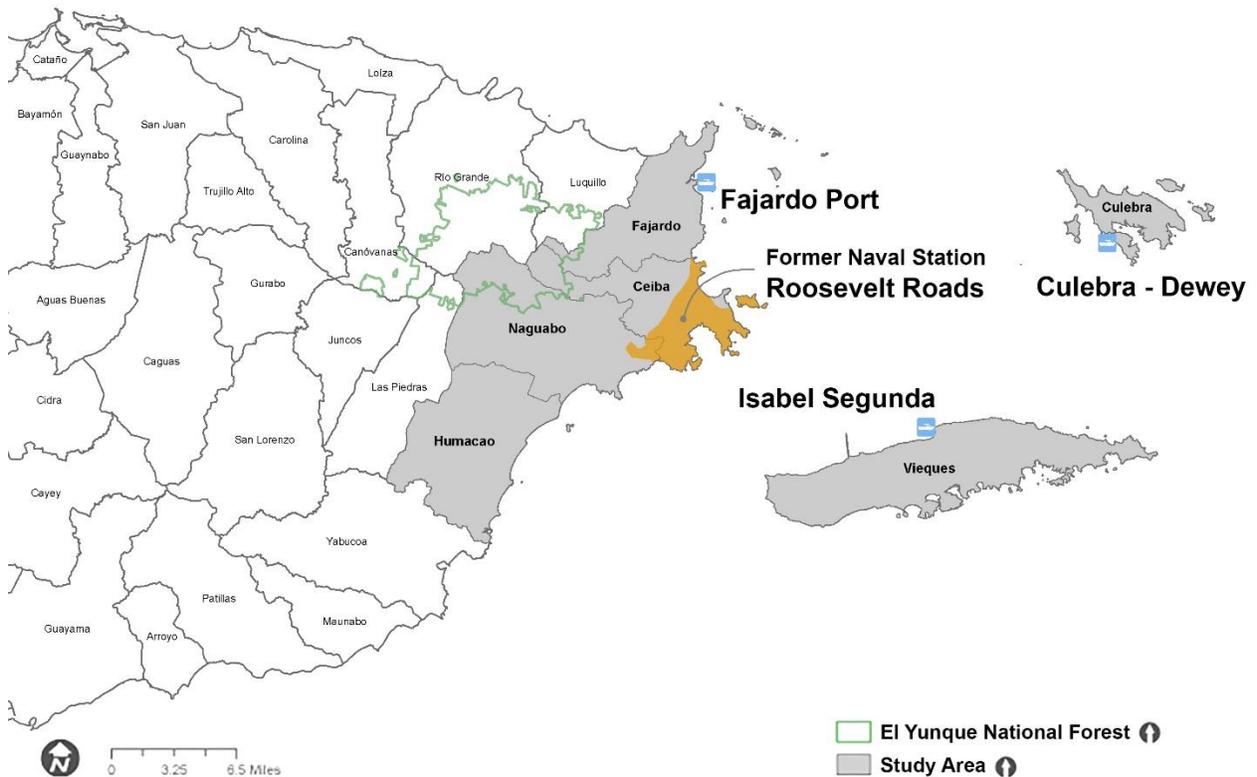


Figure 1 Proposed Planning Region

Between 1902 and 1975, the US Navy used the island of Culebra for their military practices. Since 1995, the US Corps of Engineers (USACE) has been working on cleaning remaining undetonated ordinances in that island. In Vieques, the US Navy began military practices in the 1940s, and continued all the way to 2003, occupying 22,773 acres (70%) of the island. In 2005, portions of Vieques were included in the National Priority List (NPL) as a Superfund Site. After the end of military practices, tourism has become the main economic activity in both islands.

Planning Region:

Puerto Rico's Eastern Region

Primary area:

Roosevelt Roads (Ceiba and Naguabo), Vieques and Culebra

Secondary area:

Fajardo, Humacao

The municipalities of Ceiba and Naguabo are located at the foothills of El Yunque National Forest in the East coast of Puerto Rico. They house the former 8,720-acre naval station of Roosevelt Roads (NSRR). The US Navy closed it in 2004 and transferred 3,409 acres to the Local Redevelopment Authority (LRA), 1,646 to the PR Ports Authority (airport) and 3,409 acres (40%) were set aside for conservation. The strategic location of NSRR, Vieques and Culebra in the Caribbean offers an opportunity to promote the development of the Region as a premier nature tourism destination in the United States' Caribbean jurisdiction.

NSRR's lands have high economic, ecological, and tourism potential which, as part of the US Navy's BRAC program, prompted the Commonwealth of Puerto Rico (the "Commonwealth") to approve a Master Plan for their use in 2012. The Master Plan was developed to promote economic activities that improve the disadvantaged economic situation of the Eastern Puerto Rico residents, who are facing high poverty and unemployment levels. The Planning Region (see Figure 1) under study is an *Economically Distressed Area* given its lower per-capita income and higher unemployment rate. It

can also attain such designation due to the closure of military bases in Roosevelt Roads and Vieques. The vast majority of the subject Planning Region is considered rural (Figure 2).

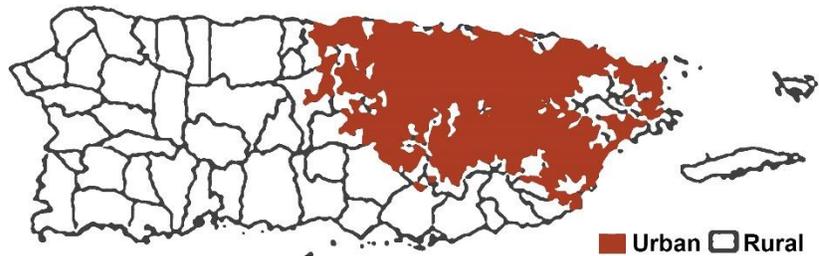


Figure 2 Impact region: San Juan/Fajardo urbanized area

TRANSPORTATION CHALLENGES

The optimal functioning of a multimodal transportation system is essential for the sustainable development of these economically distressed municipalities. Indeed, the Vieques Sustainability Task Force has recognized that "the lack of reliable ferry service is a major obstacle for sustainable economic development in Vieques".¹ This lack of transportation options also makes the population of both island-municipalities highly vulnerable to external events such as natural disasters.

¹ Vieques Sustainability Task Force Briefing Memo on Development Planning and Priorities. As part of the President's Task Force on Puerto Rico, the EPA has established the Vieques Sustainability Task Force to coordinate Federal and local efforts in two main areas: (1) the Vieques's Superfund remediation and clean-up and (2) the development of a sustainable economy in this Island by promoting job creation for the benefits of its residents. This Task Force is focusing on the coordination, promotion of projects that include: innovative technology for cleanup; guidance of Superfund cleanup priorities; energy efficiency and clean renewable energy on the island; green tourism; increased protection of Mosquito Bay (a bioluminescent bay); waste reduction, recycling and composting programs; use of electric vehicles; improvements in mass transit; and greater access to health care and environmental education (VSTF, 2012 Source: <http://www.cbuilding.org/vstf>).

Currently, there is a sole affordable surface transportation option between the island of Puerto Rico and Vieques and Culebra, through the port of Fajardo. In 2013, 1,192,642 passengers were carried on the maritime routes between Fajardo and the two island-municipalities, for an average of 3,267 passengers per day (ATM, 2014).

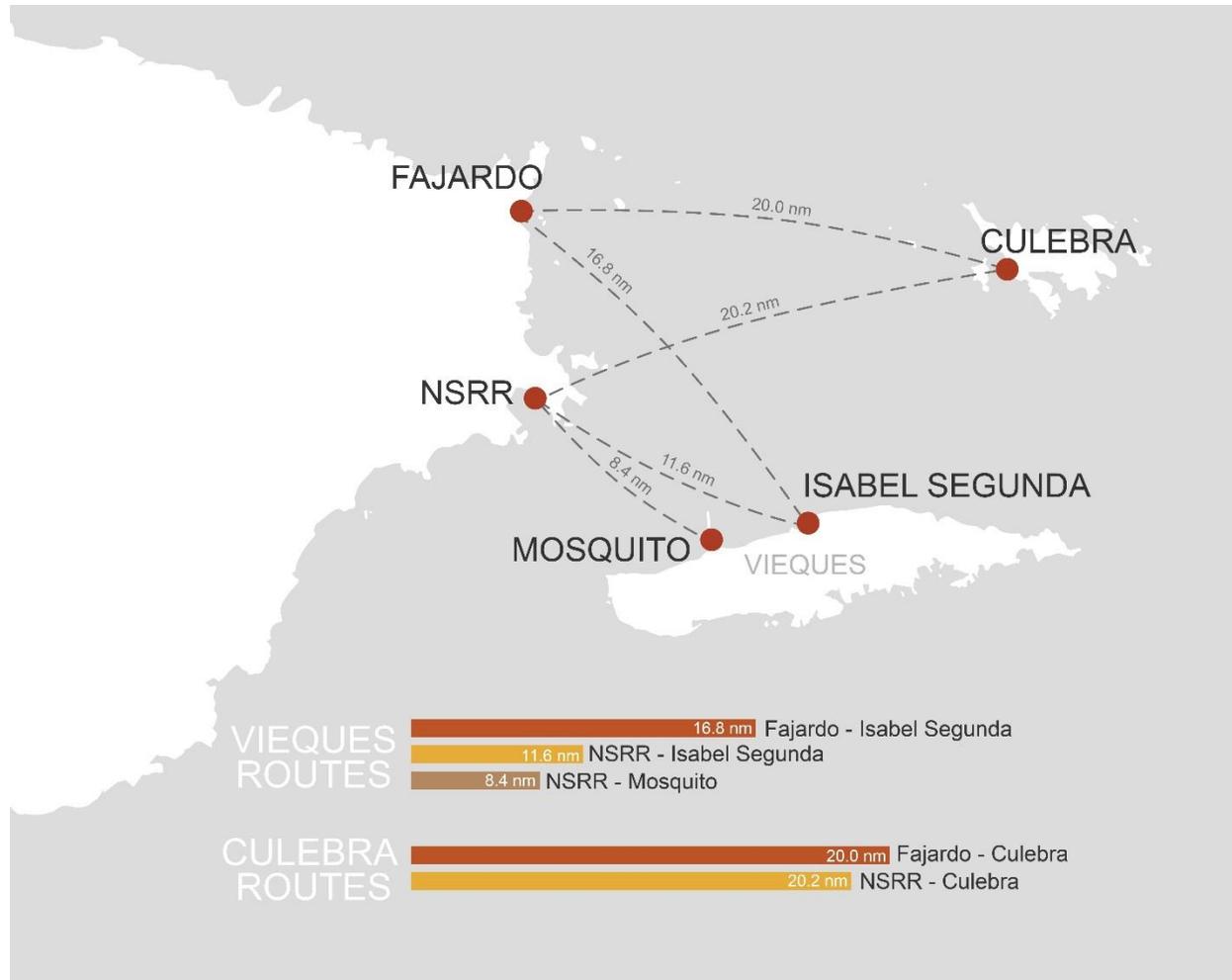


Figure 3 Options for maritime routes between Puerto Rico and Vieques - Culebra

The Vieques-Fajardo maritime route’s distance is about 17 nautical miles and the trip takes about one hour and a half.² In 2013, 656,887 people used the boat/ferry service to commute between Vieques and Fajardo. However, there is an opportunity to diversify mobility options by developing a short maritime route between Vieques and the former military base NSRR. Travel time between the Isabel Segunda Pier in northern Vieques and the existing port facilities in NSRR can be reduced to 35 minutes. This time could be reduced even more, to 25 minutes, if the route is established between NSRR and the Mosquito Pier, which is located in the western part of Vieques.

² Departamento de Desarrollo Económico y Comercio. (2011). Plan Maestro para el desarrollo sostenible de Vieques y Culebra. Segundo Informe.

Between Culebra and Fajardo, approximately 1,468 people commuted daily on year 2013 (ATM,2014). If an additional route were established between NSRR and Culebra it would maintain the same distance as from Fajardo (about 20nm). Although the travel time would not necessarily be reduced, this route would provide a secure alternative for residents, visitors, and cargo. An additional maritime route could also improve the livelihood and general life quality of residents and visitors, besides reducing their vulnerability during extreme weather conditions.

An additional surface transportation route between the island-municipalities and NSRR (see Figure 3) will also create previously inexistent connectivity opportunities with the towns of Ceiba, Naguabo and Humacao, which are important sources of services and goods in Eastern Puerto Rico and were not easily accessible via Fajardo.

Terrestrial mobility in the island-municipalities is also deficient. Currently, Vieques and Culebra lack an efficient and multimodal public transportation system. People from both islands are highly dependent on private cars. In 2010, there were 6,647 registered cars in Vieques and 1,159 in Culebra, which is almost one car per resident. Also, there's only one gas station in Culebra and two in Vieques. During festivity weekends, when the island-municipalities are crowded with tourists, the gas stations could be easily depleted. The same scenario happens when the only boat/ferry service (run by a public agency) is canceled due to weather or mechanical conditions and the gasoline trucks cannot get to these two islands on schedule.

There are also geographical constraints posed by being islands, which would make a higher concentration of private vehicles unattainable. Currently, there's insufficient supply of rental cars for tourists during high season. The only mass transportation option in both island-municipalities is the *públicos* –authorized private drivers that carry passengers through a fixed route- which are scarce and, in addition, are a constant target of complaints from residents due to their prioritization tourists over locals. This situation also affects tourism since *públicos* operate only on regular working hours (no nighttime working hours) greatly affecting the mobility of tourists.

In light of these situations, public transportation and internal mobility diversification would be preferred options. This would reduce emissions and environmental impacts, such as erosion and non-point sources of pollution, which would be the result of adding new roads to substitute impassable ones.

Of note is the fact that NSRR is ideal for creating a network of bike lanes; its port is located about 5 miles from the town of Ceiba and less than 10 miles from the town of Naguabo. And as a possible tourist attraction (thus a new job creator), bikers can experience a visit to El Yunque National Forest, then enjoying a 13-mile downhill bike ride to NSRR where they could take a commuter boat to Vieques to keep biking. The same bicycle-friendly conditions happen in Vieques (21mi x 4mi) and Culebra (7mi x 5 mi), whose ports are located within pedaling range of their main tourist attractions.

There is also a need to improve mobility and diversify transportation options in NSRR, in order to connect the former naval station with service hubs and other centers of economic activity in PR's Eastern region, especially those located in Fajardo and Humacao, which are essential for residents and merchants in Vieques and Culebra. To address these needs, the proposed

planning/design project (the “PLAN”) aims to develop a multimodal transportation plan in Puerto Rico’s Eastern Region in order to:

- Connect Vieques and Culebra residents to the economic activities planned for NSRR, in order to foster their economic mobility;
- Diversify the mobility opportunities of US citizens living, visiting and/or moving cargo between Vieques, Culebra and the rest of Puerto Rico by creating a second hub (the NSRR port);
- Enhance multimodal connections in Vieques and Culebra and between NSRR and the municipalities of Ceiba, Naguabo, Fajardo and Humacao for residents and visitors.

Presently, the Commonwealth has the intention of requesting proposals from private operators to establish a ferry route between Roosevelt Roads’ Pier 2 (Figure 4) and Isabel Segunda in Vieques on an interim, short-term mode before the proposed regional plan is completed. This effort looks to provide quick, temporary relief to some of the needs of Vieques in particular; but since no formal planning has been done due to the lack of funding, some shortcomings are expected, which may include (i) lack of interest from operators given the absence of a market study, pricing guidelines and route planning, (ii) expensive rates proposed by operators to cover unknowns such as repairs to poor port infrastructure, and (iii) short-lived operation due to incorrect traffic assumptions from operators. However, this short-term remedy will not interfere with the overall multimodal planning effort proposed within the PLAN.

PROPOSED PLANNING PROJECT

During the past years, the Commonwealth has developed various plans to foster economic development based on sustainable tourism, all of which presented conceptual proposals to improve multimodal transportation. Unfortunately, harsh fiscal conditions have made difficult to move forward these key transportation infrastructure initiatives that are essential to promote economic development and investments in the area.

The proposed planning study is titled “*Eastern Puerto Rico Regional, Multimodal Transportation Plan; Leveraging Roosevelt Roads to Connect the Islands of Vieques and Culebra to Jobs and Services*”; its main scope is to build upon these multiple conceptual transportation proposals in order to advance them to more specific planning and design stages and make them viable for capital improvement projects. These projects will be refocused to provide safe, resilient connections to the people of the secluded island-municipalities to the jobs and services hubs of NSRR, Ceiba, Humacao, Naguabo and Fajardo. It will also provide new, environmentally-friendly transportation options for nature-loving tourists to easily and safely get to these US-flagged Caribbean islands (thus improving the islands’ economy).

This PLAN will have the following three components:



Assessment

The first PLAN component will be to compile the previous studies in the Planning Region to assess their data and conclusions. With the previously available data in hand, the next step is to prepare an assessment of the transportation needs of the Planning Region's residents. It will include a stakeholder's assessment as well as an infrastructure assessment.

Stakeholders Assessment

Public participation is an essential component of any transportation planning process. It ensures that decisions are based on the public's needs and preferences. The planning development process must provide for an open exchange of information and ideas among the public, community residents, visitors and tourists, government entities, business representatives and any other identified stakeholder. In the initial phase, a public involvement plan will be developed and implemented in order to assess the needs, desirability, opportunities and challenges –among other things- of the following:

Shorter maritime route. Developing a shorter maritime route by improving existing port facilities in either Mosquito pier or Isabel Segunda in Vieques, based on residents and visitors' needs and expectations, as well as cargo needs³. The Mosquito pier already has some basic facilities, such as parking and waiting area, but presents concerns for passengers due to its distance from the urban center (Isabel Segunda). An alternative could be to dedicate this pier exclusively to the movement of cargo, which would then reduce traffic congestion in Isabel Segunda.

Main Island mobility. Identifying the transportation needs of residents and visitors coming from Vieques and Culebra once they arrive at the main Island, considering all the services and economic activity hubs in the Eastern Region.

Other data. Obtaining any other necessary information not contained in the previous planning efforts.

Infrastructure Assessment

This second assessment component will consist of various tasks, among them:

Assessment of existing ports infrastructure. Assess port facilities in NSRR, Vieques and Culebra to determine their physical condition and vulnerability to extreme weather and climate change. In NSRR, perform a survey and assess the environmental conditions, given the current clean-up

³ This information will result from key informant interviews to stakeholders such as: government officials, NGO, community leaders, private entities such as business, hotels, and transportation providers among other stakeholders. Community meetings, workshops, among other participation strategies deemed necessary.

work being done there by the US Navy. In Vieques, the Mosquito pier facilities will be evaluated versus the Isabel Segunda port to identify which of the two can be the most suitable for the establishment of a short route between NSRR and Vieques. In Culebra, other options to evaluate include the municipal dock in Ensenada.



Figure 4 NSRR Pier 2



Figure 5 Culebra Ferry Pier⁴



Figure 6 Vieques' Mosquito Pier



Figure 7 Vieques' Isabel Segunda Pier

Complete Streets. Evaluate the conditions of the major existing roads in NSRR (see Figure 8) in order to transform them into Complete Streets. The Roosevelt Roads Redevelopment Infrastructure Master Plan (2012)⁵ recommended evaluating the rehabilitation of NSRR's main corridors as "Complete Streets", including separate bike lanes. NSRR is composed of a network of approximately 110 miles (177 km) of main and secondary roads, avenues and local streets. Currently, three main roads (Main Road-Tarawa Road, Towway Drive, and Forrestal Drive) are used as multimodal routes by cyclists, cars and cargo vehicles.⁶ However, these roads lack sidewalks, adequate signage and lightning, which are essential for a transportation system that provides a safe and efficient movement of people and goods within and through the site. The

⁴ Photo credit: <http://islandwomanculebra.blogspot.com/2013/10/tiny-homes-tuesday.html>

⁵ <http://www.lafrr.com/Developer-investor>

⁶ Local Redevelopment Authority. (2013). New Access Plan to Roosevelt Roads. Press Statement.

main purpose of converting NSRR's main roads into complete streets is to promote convenient access and mobility to pedestrians, cyclists, people using public transport, drivers of motor vehicles, and in general people of all ages and physical conditions.

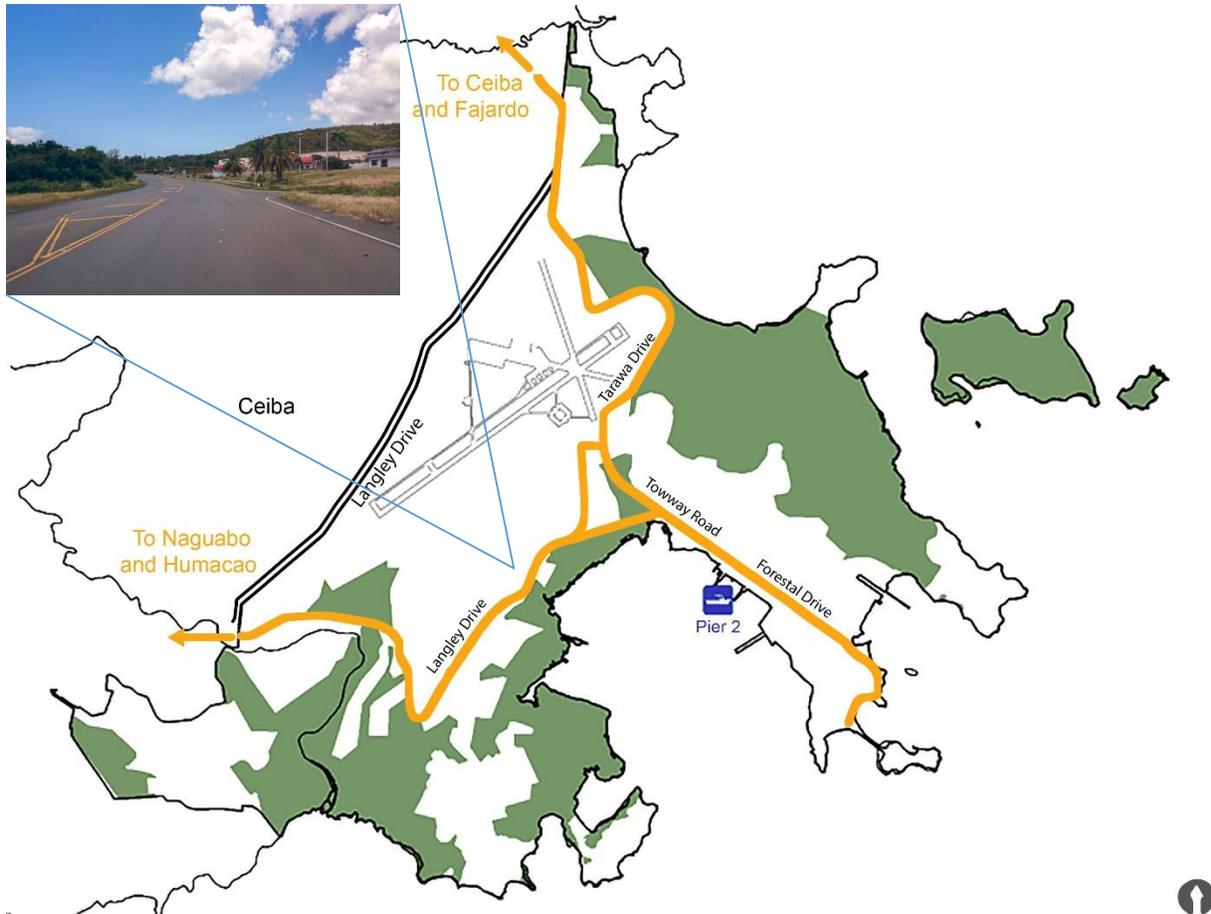


Figure 8 NSRR Main Roads to be considered for complete streets conversion

Other initiatives.

- Collect and evaluate the conceptual multimodal projects proposed in previous plans connecting Vieques and Culebra's port facilities to their urban centers, main settlements and tourist attractions. Special attention will be given to recommendations that can be furthered into viable projects in a short timeframe.
- Assess the conditions of surface routes connecting the NSRR with El Yunque National Forest to explore the possibility of adding multimodal components to this connection.
- Evaluate the multimodal connection needs between NSRR and the urban and economic centers of Ceiba, Naguabo, Humacao and Fajardo.

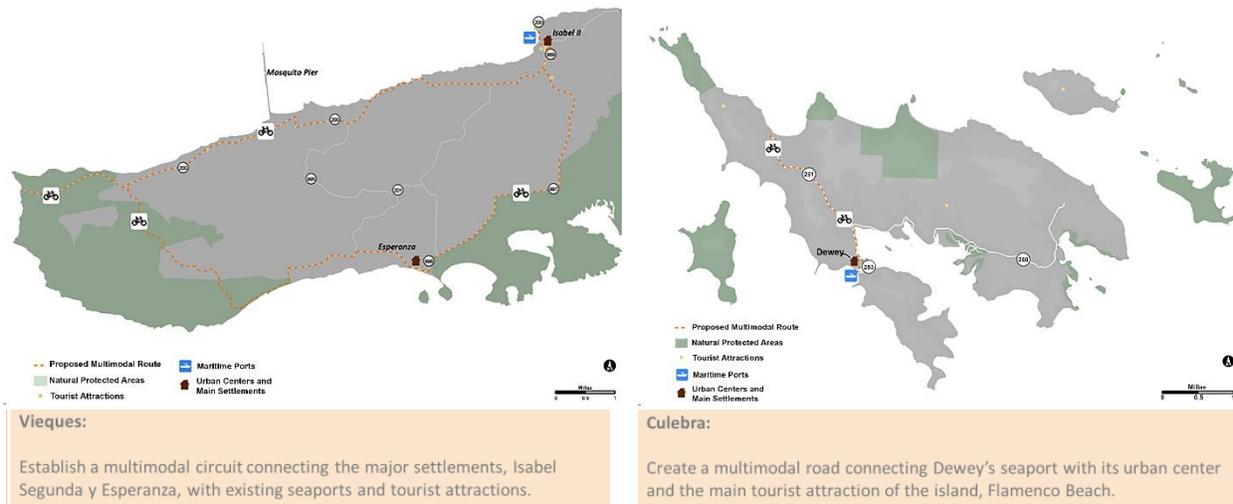


Figure 9 Multimodal opportunities in Vieques and Culebra

Design and Recommendations

Prepare various schematic design alternatives based on the completed stakeholder and infrastructure assessments. Each alternative must include a cost estimate and an analysis of its associated risks (including from extreme weather and climate change). Design alternatives must present a safe, resilient and environmentally-friendly solution to the PLAN's objectives (i.e. improve access to economic development to the disadvantaged residents of Vieques and Culebra). Design solutions must harmonize with the delicate natural environment of NSRR and the island-municipalities by managing stormwater, limiting CO2 emissions, and avoiding greenfield developments.

Schematic design scenarios will be identified as part of the assessments' findings but might include the following:

- Establishing a shorter maritime route (for passengers and freight) between NSRR to Vieques and to Culebra;
- Improving the port facilities in NSRR, Vieques, and Culebra, in order to make these more competitive, secure and resilient;
- Creating multimodal routes within the Planning Area (see Figure 10) that reduce dependence on cars and foster health, including from NSRR to:
 - Naguabo's urban center, and from here to El Yunque National Forest
 - Ceiba's urban center
 - Humacao's centers of economic activity
 - Fajardo's centers of economic activity
- Rehabilitating NSRR main corridors as Complete Streets and connecting this area with the Region's urban and economic service centers through multimodal routes; and
- Recommending additional potential transportation strategies.

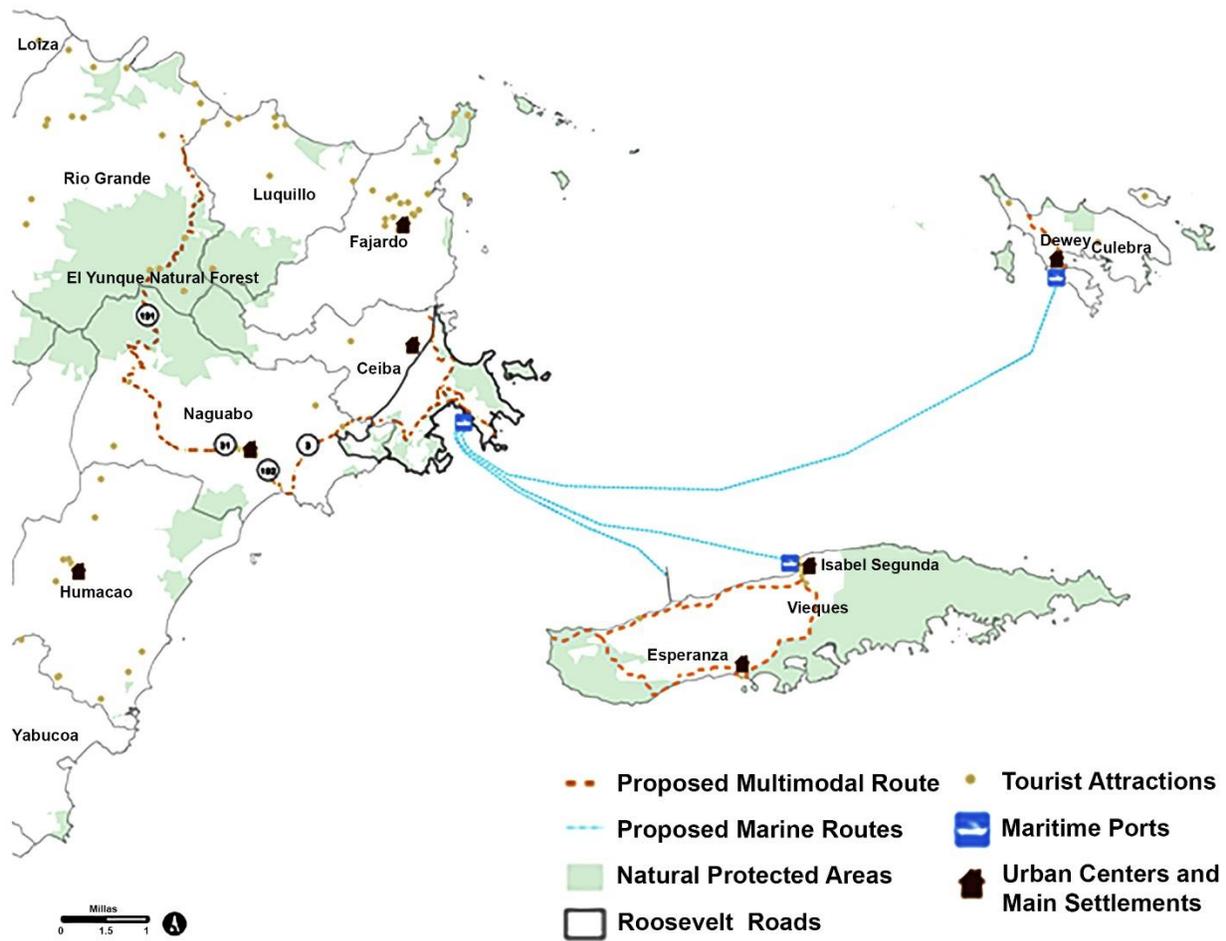


Figure 10 Multimodal opportunities

Financial Strategy

The selected project schematics will be advanced to a phase where its financials can be properly determined. This PLAN component is essential in order to determine the long-term economic sustainability of the proposed solutions. Among the component’s main tasks are:

- Determine the overall development budgets (construction + soft costs) for all proposed projects.
- Analyze and make recommendations on funding needs.
- Design innovative funding and procurement strategies that could convert the PLAN’s objectives to feasible projects.

II. Project Parties

This PLAN is being co-promoted by two Commonwealth agencies: the PR Infrastructure Financing Authority (AFI) and the Local Redevelopment Authority for Roosevelt Roads (LRA). AFI will act as project grantee while the LRA will act as partner and co-sponsor.

PUERTO RICO INFRASTRUCTURE FINANCING AUTHORITY

AFI was created, among other things, to provide financial, administrative, consulting, technical advisory, and other types of assistance to other public corporations, governmental instrumentalities, political subdivisions and municipalities that are authorized to develop infrastructure facilities and to establish alternate means for financing infrastructure facilities.

AFI is Puerto Rico's public agency with more expertise in contract management. AFI's Executive Director is also the Director of the Public-Private-Partnership Authority; this synergy will greatly benefit the grant's execution.

LOCAL REDEVELOPMENT AUTHORITY FOR ROOSEVELT ROADS

The LRA was created, among others things, to (i) develop and implement the Reuse & Redevelopment Plan for Roosevelt Roads Naval Station; (ii) direct, supervise, regulate and (iii) maintain the economic development of the land and facilities of the Roosevelt Roads Naval Station; and conduct other activities deemed convenient and pertinent to the purposes of the enabling Act.

Serving as the promoter of economic development within the former naval base Roosevelt Roads, it is in the best interest of the LRA to enhance the connections between Roosevelt Roads and its neighboring communities. Helping Vieques and Culebra directly benefits and accelerates the Roosevelt Roads redevelopment.

OTHER PROJECT PARTIES

To support in the planning process, the LRA and AFI has partnered with the Puerto Rico Department of Economic Development and Commerce, the Puerto Rico Tourism Company, the Vieques and Culebra Commissioner Office, and the Municipalities of Vieques, Culebra, Ceiba and Naguabo.

Lastly, INTENE, a non-government consortia of Puerto Rico's Eastern municipalities will be involved in this effort, providing economic development and job training data and other information.

III. Grant Funds and Sources/Uses of Project Funds

Task	Cost	Remarks
PLANNING	\$ 200,000	Study of existing plans, stockholder assessment, economic viability, Transportation Asset Mgmt Plan, etc.
ENGINEERING	\$ 225,000	Civil & traffic engineering, urban design, architecture, GIS mapping, permitting, other technical consulting
FIELD STUDIES	\$ 200,000	Land topography & as-builts, Phase 1 environmental, traffic flows, title studies, imaging, others
FINANCIALS	\$ 75,000	Projects' economic feasibility, development budgets, funding strategies
CONTRACT MANAGEMENT	\$ 70,000	Overall contract & project management, inter-agency coordination
LEGAL	\$ 30,000	Legal framework for proposed procurement, general project-specific advisory
TOTAL	\$ 800,000	

Table 1 Use of project funds

The total cost of the proposed “Eastern Puerto Rico Regional, Multimodal Transportation Plan” is \$800,000. This cost includes (i) the regional planning and economics consulting fees, (ii) the costs of preliminary engineering design services (including associated field studies), and (iii) the costs associated with the administration of the contract and incidental legal fees.

ORGANIZATION	CASH	IN-KIND	TOTAL
DEDC	X		\$50,000
AFI		X	\$60,000
LRA	X		\$50,000

Table 2 Sources of local funds

The Commonwealth has set apart \$160,000.00, equivalent to 20% of the total cost of the studies. These funds are available for next fiscal year (FY2014) and have not been used or compromised prior to this Grant Application. Unless specified, the matching funds set apart for the PLAN come from the Puerto Rico General Obligations Fund and not from federal sources.

The 20% matching comes from the following agencies:

PRDEDC. The Puerto Rico Department of Economic Development and Commerce (PRDEDC) has set apart \$50,000 to help pay for the planning study.

LRA. The Local Redevelopment Authority for Roosevelt Roads has allocated \$50,000 of its funds to help pay for the engineering studies.

AFI. The PR Infrastructure Financing Authority has allocated \$60,000.00 that

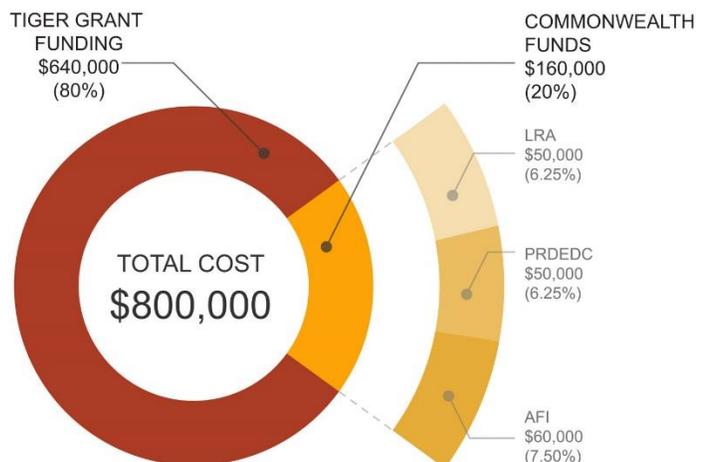


Figure 11 Source of funds

will be used for grant administration, contract management, financial studies and/or incidental legal fees. AFI's own staffers and consultants will perform these services.

The amount of TIGER Planning Grant funding requested is \$640,000 –or 80% of the total cost of the studies- that will be used to complete the planning and engineering fees, which include certain field studies. This matching ratio (80%-20%) exceeds the recommended parameters for rural locations (minimum of 0% matching required).

IV. Selection Criteria

PRIMARY SELECTION CRITERIA

State of Good Repair

The Puerto Rico 2040 Islandwide Long Range Transportation Plan states that Puerto Rico’s “transportation infrastructure ‘health’ is in some jeopardy”. In addition, the economic and fiscal conditions that the Commonwealth is currently facing means that the maintenance of the existing transportation infrastructure will require more resources than are available today. These economic and fiscal constraints require innovative designs that minimize life-cycle costs, as well as innovative finance options to ensure the long term state of good repair of any new transportation infrastructure project.

Besides economic considerations, climate change poses another set of serious threats that could undermine the life cycle of any transportation infrastructure project. The Puerto Rico Climate Change Council’s (PRCCC)⁷ first assessment report on the effects of climate change on Puerto Rico states that the Commonwealth is prone to sea level rise (1m projected rise for year 2100), more frequent flooding, and warmer temperatures, among other impacts.

Regarding transportation infrastructure, the report singles out passenger boat & ferry terminals as being especially vulnerable to the effects of climate change; flooding from sea level rise could result in structural damage to the ferry system or cause the same to become completely submerged and therefore unusable, especially the Fajardo Ferry Terminal which is the single mode of surface transportation to and from Vieques and Culebra.

The report also states that long-term fluctuations in temperature could cause thermal cracking in roads in Puerto Rico. In addition, higher in-service temperature in roadways could increase rutting, thus maintenance, rehabilitation, and reconstruction will be needed earlier in the design life. Climate change effects on transportation infrastructure also include the increased vulnerability of low-lying roadways to flooding, due to precipitation and sea level rise, coastal floods and erosion, more frequent and intense rainstorms, or from overflowing streams and water bodies. Any new transportation infrastructure project in Puerto Rico would require careful considerations of these potential impacts to ensure long-term resilience.

Currently, Vieques is experiencing staff and equipment shortages (in 2011, only one employee from the Puerto Rico Department of Transportation and Public Works (PRDTPW) was assigned to the island to properly maintain its 55 miles of paved and unpaved roads.⁸ Indeed, many

⁷ The PRCCC is an association of more than 150 researchers, scientists, agency representatives, planners and NGO whose task is to assess how changes in temperature, precipitation, sea level and other climate parameters may affect infrastructure and natural resources in Puerto Rico. The PRCCC published the *Puerto Rico’s State of the Climate: Assessing Puerto Rico’s Social Ecological Vulnerabilities in a Changing Climate* in 2013.

⁸ Department of Economic Development and Commerce. (2011). *Vieques and Culebra Sustainable Development Master Plan: An update*.

roads in Vieques and Culebra have been rendered impassable because of erosion and lack of maintenance.

In NSRR a vast majority of the roads were built on the 1940's during the initial Base development.⁹ The Base was originally accessible through four gates, many of which require considerable improvements. Also, even though there is road access to practically all the facilities on the premises, many of these are in poor condition because of abandonment, and are in need of major repairs.¹⁰ The maritime transportation infrastructure in NSRR is over 50 years old, but it is regarded as being in fair condition.¹¹ It includes a fuel mooring pier, 3 cargo/passenger piers, small boats marina, bulkhead facilities for ships docking, boat landing ramps and ports operation buildings. However, impacts stemming from sea level rise due to climate change could render them vulnerable in the future.

The PLAN is centered on enabling a new multimodal transportation alternative for getting in and out of the island-municipalities that would carefully consider and integrate all the aforementioned conditions in the planning and design stages of the project to ensure a state of good repair. Given Roosevelt Roads' and the island-municipalities' transportation infrastructure vulnerabilities to climate change and their insufficient maintenance resources, it is essential for this PLAN to incorporate low life-cycle costs and resilience-enhancing measures for all proposed new construction and improvements to the existing infrastructure.

Considering the existing conditions of the available transportation infrastructure, the PLAN will have to:

- Make recommendations for repairs to existing, vital transportation infrastructure like roads and ports in the areas of Vieques-Culebra and Ceiba-Naguabo;
- Include schematic designs for repairing and improving roads in and out of the ports of Roosevelt Roads, Vieques and Culebra, and repairing and improving the actual boat/ferry dock facilities in Roosevelt Roads, Vieques and Culebra. This would include innovative designs to ensure low-cost construction and long-term maintenance given the fiscal and economic constraints in the Commonwealth;
- Study and recommend alternative ports in Vieques and Culebra that would better manage increased traffic of people and goods and at the same time act as redundant facilities when the main ports are disabled by weather or accident;
- Study and recommend innovative procurement methods for the operation and maintenance of the Ceiba to Vieques-Culebra boat/ferry route; and

⁹ Integra Architects & Engineers. (2012). *Roosevelt Roads Redevelopment Infrastructure Master Plan*. Local Redevelopment Authority.

¹⁰ Ibid.

¹¹ Ibid.

- Incorporate resilience-enhancing measures that reduce the infrastructure’s vulnerability to all conceivable impacts due to extreme weather and climate change, while maintaining accessibility to its servicing population.

To ensure these goals, a transportation asset management plan (TAMP) would be developed, which include seven steps indicated in Figure 12.

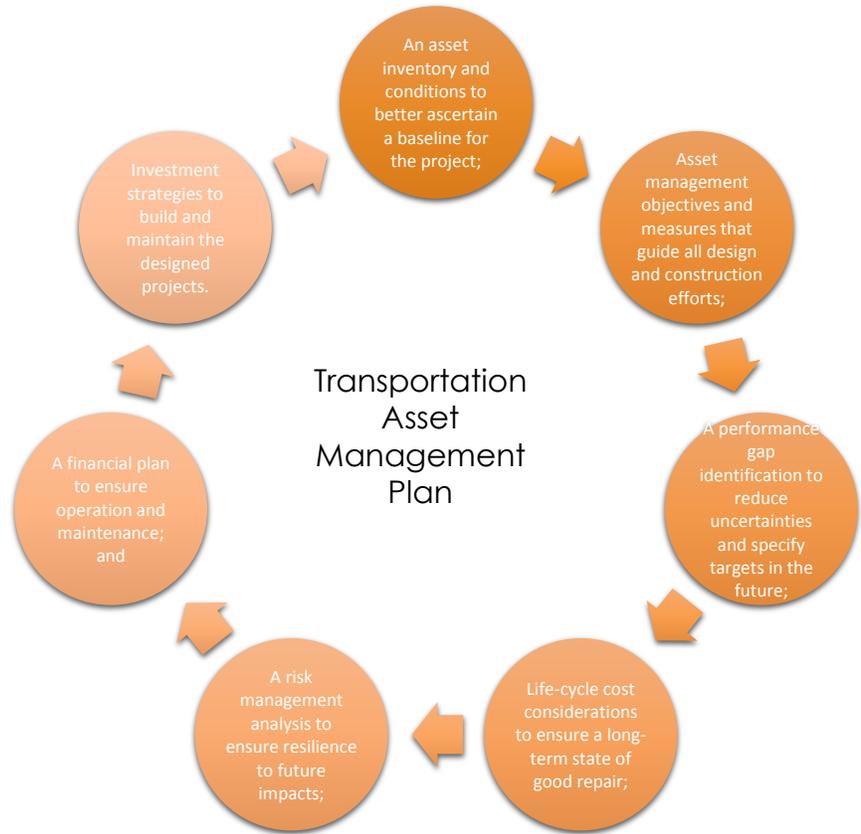


Figure 12 Transportation Asset Management Plan Steps

Economic Competitiveness

Due to the strategic location of Vieques-Culebra-Roosevelt Roads in the Caribbean, there’s an opportunity to promote the development of the region as a premier nature tourism destination in the United States’ Caribbean jurisdiction.

Currently, tourism is the main economic activity in Vieques and Culebra and a major economic development component in the Roosevelt Roads redevelopment roadmap. However, top US hotel companies operating in Puerto Rico, such as Hilton Hotels, Marriott International, Wyndham Hotel Group, Choice, and Carlson-Residor, among many others, have not been able to take advantage of the region’s attractions due in large part to transportation infrastructure limitations. If US-based hotel companies invest in the island-municipalities, the United States’ tourism-related competitiveness and exports will greatly increase. Vieques, Culebra and the US Virgin Islands (USVI) compete against other nations in the Eastern Caribbean, including U.K. (British Virgin Islands, Anguilla, Monserrat), France (Guadeloupe, St. Barthelemy, Martinique), and the Netherlands (St. Maarten, Saba, Aruba, Curazao).

Since 2004, the PRDEDC has developed various economic development plans for the municipalities in the Eastern Region, based on the opportunities and the potential of tourism. After the departure of the U.S. Navy from Vieques in 2004, the Master Plan for the Sustainable Development of Vieques and Culebra was developed (revised in 2011) and includes specific strategies to foster nature tourism and ecotourism as the principal economic activities. Later in

2005, after the US Navy closed NSRR, the PRDEDC also developed a Strategic Plan to integrate residents from Ceiba and Naguabo to the proposed economic activities in NSRR. All these plans identify the need to improve connectivity through an efficient transportation system to make viable the economic development strategies and make the municipalities of the PR Eastern region more competitive.

In 2011, the Commonwealth approved a Master Plan (Zoning Plan) for NSRR, considering the high economic, ecological, and tourism potential of redeveloping its lands. It is estimated that the economic and fiscal impact of the redevelopment of NSRR would produce 29,000 direct, indirect and induced jobs in the construction phase of the first 20-25 years.¹² Fiscal impacts resulting from the increased economic activity are estimated to reach \$280 million from the construction and \$660 million from the operation during the first 20-25 years.¹³ These economic activities would improve the disadvantaged economic situation of residents of the Eastern Region and will open new investment opportunities for US tourism-related companies.

Another transportation connection that will be studied in the PLAN is from the NSRR to El Yunque National Forest via state roads PR-978 and PR-191. This route would link the nature-tourism attractions found in El Yunque rainforest with the visitors of NSRR and the island-municipalities via a multimodal route. This new connection will also provide much-needed relief to the existing, overcrowded entrance to El Yunque (via Luquillo).

Surface transportation between NSRR and the islands of Vieques and Culebra is inexistent and the multimodal connectivity and integration of the Ceiba and Naguabo communities to NSRR is poor. **Transportation deficiencies, particularly boat/ferry delays out of the current port of Fajardo, have affected the movement of tourists and goods needed for economic activities, impacting the island-municipalities' competitiveness and their capacity to attract new investment.** The lack of reliable ferry service is a major obstacle for sustainable economic development in Vieques.¹⁴ For example, in July 2013 (July is the peak tourism season for internal tourism), 67% of the ATM ferry departures were delayed.

As it stands, with all its hardships, lodging in Vieques during FY2012-2013 registered 42,469 room-nights sold, out of 76,353 room-nights available (a 55.6% occupancy rate).¹⁵ This rate contrasts with the rest of Puerto Rico (69.7% in calendar year 2013 according to PRTC) and the rest of the Caribbean (61.7% in 2012¹⁶), which exhibit higher occupancy rates. Increasing the hotel occupancy rates in Vieques and Culebra to the PR average represent important job creation and economic development opportunities.

The lack of reliable passenger and cargo transportation is a key barrier for a sustained economic development in Vieques and Culebra. Tourist activity –thus the economic productivity of land

¹² Chicago Consultants Studio. 2010. Roosevelt Roads Redevelopment Addendum to the 2004 Reuse Plan.

¹³ Ibid.

¹⁴ Vieques Sustainability Task Force Briefing Memo on Development Planning and Priorities.

¹⁵ Puerto Rico Tourism Company (October, 2013). Lodging occupancy report for Vieques. Available at http://cce.estadisticas.gobierno.pr/Documentos/4C7F1497-B13B-43E4-8314-3E1328CA08FB/CT_OcupacionVieques_201310.pdf

¹⁶ KPMG Caribbean Hotel Benchmarking Survey 2013 (<http://www.kpmg.com/dutchcaribbean/en/Documents/2013%20Hotel%20Benchmarking%20Survey%20Final.pdf>)

and labor- could increase in these Economically Distressed Areas if connectivity is improved. This enhanced connectivity would also promote more investment of local and external capital to the region and will allow the mobility of goods and people (both locals and visitors) to future centers of employment in the island-municipalities as well as in NSRR.

The PLAN would take advantage of other proposed or ongoing projects that are slated to be developed in the Region, in order to further their economic impact. Following is a brief summary of key projects that the LRA currently has underway or ready to launch throughout 2014 and 2015. Combined, these projects are expected to generate a steady stream of revenues for the LRA and begin in earnest the redevelopment of Roosevelt Roads to create jobs and drive economic growth in the towns of Ceiba and Naguabo, the eastern region of Puerto Rico and the island municipalities of Vieques and Culebra.

The LRA signed a Memorandum of Understanding (MOU) with the Municipality of Ceiba on January 27, 2014 for the administration, operation and maintenance of “All Hands Beach” at Roosevelt Roads (RR). This is the first beach within RR to be opened to the public. The MOU is for a 5 year lease with an option for renewal for five additional years. The Municipality of Ceiba will assume responsibility for repairing existing bathrooms, concession stand and small amphitheater, as well as repairing and constructing new gazebos; enabling a parking area, providing security and constructing a lifeguard tower. The Municipality estimates that it will invest approximately \$1.5 million in these activities and create approximately 25 direct and indirect jobs.

Also, the LRA Board of Directors approved a proposal made by the Municipality of Ceiba to operate the Commercial Marina on March 24, 2014. The LRA will lease the facility to the Municipality of Ceiba for a four year period, with a renewal option. The Municipality of Ceiba estimates that it will invest approximately \$650,000 and create 30 jobs.

Additionally, the LRA published an RFP on March 13 for small businesses to provide ecotourism services, nature adventure, recreational, and complementary activities at the NSRR, on nine existing structures with combined space of approximately 30,000 square feet. As previously announced, this RFP was launched as part of a broader effort to initiate projects that begin to generate jobs and economic activity prior to the publication of Request for Qualifications (RFQ) for Master Developers slated for the summer of 2014. The LRA estimates that the RFQ process will comprise approximately 3,000 acres of developable lands at Roosevelt Roads. This RFQ, together with other RFP’s scheduled for 2014, will jump start development activities throughout the three parcel areas transferred to the LRA by the U.S. Navy during 2012-2013.

During March 2014, the US Department of Health and Human Services (USHHS) conveyed to the LRA that it would evaluate applications from STAT Medical Group and Caribbean Medical Center by August 1, 2014 for the operation of the hospital at Roosevelt Roads. Both of these organizations are in the process of completing their respective applications for submittal to USHHS by May 15, 2014. It is estimated that total investment to revamp the 100 bedroom hospital will total approximately \$22 million. When fully operational the hospital will create between 150-200 jobs.

Another milestone with potential economic development implications for the LRA and the eastern region of Puerto Rico was the signing by the LRA and Astivenca Shipyards Corporation of an exclusive access, use and negotiating agreement on March 27, 2014 for the development of a shipyard in the dry dock area at our property. Under the terms and conditions approved, Astivenca shall perform a due diligence process during a six (6) month period of analysis, evaluations, testing, inspections, among other, of the designated area to ascertain its suitability for the development of a shipyard in the dry dock area. Upon completion of this evaluation, the LRA and Astivenca may enter into a long-term leasing agreement of the dry dock area. The company estimates that it would invest approximately \$25 million and create 300 permanent and 1,500 indirect jobs to build, repair and maintain shipping vessels.

Also, the Puerto Rico National Guard Youth Challenge Program (NGYCP) will establish an operation at the former Roosevelt Roads high school during the summer-winter of 2015. Approximately 500 students will take part in the program annually, funded in part through a federal grant and local funds. The P.R. National Guard estimates that Youth Challenge will create approximately 100 direct jobs. The average cost per Challenge student is \$16,800. This youth education program operates under the authority and oversight of the Assistant Secretary of Defense for Reserve Affairs, administered through the Chief, National Guard Bureau, and executed by the Adjutants General of the States and Territories. The program operates at 33 sites in 27 states and Puerto Rico. The goal of the NGYCP is to improve the education, life skills, and employment potential of America's high school dropouts.

Additionally, the Residential Center for Educational Opportunities for the town of Ceiba (CROEC, for its Spanish acronym) will initiate its own academic program on August 2015. CROEC employs alternative teaching methods to top students in the fields of science and math in an environment that supports their transition to college life. Roosevelt Roads has been selected as the site to initiate this program for 200 students with a total investment of approximately \$5 million. The Center estimates that their program will create 55 direct, 45 indirect and 25 induced jobs.

The LRA will also publish a Request for Proposals on May, 2014 to obtain proposals from qualified entities that have the expertise and ability to improve and operate the fuel storage facility at Roosevelt Roads through a leasing agreement. This storage facility is comprised of a fueling pier, eight storage tanks, a pumping facility, a laboratory building and their containing parcels and right of ways. This facility, built following military standards within the last two decades, is built to store more than 34,000,000 gallons of various kinds of fuels.

In addition, there are 8 lodging development projects slated to be completed by December 2016. These projects total 472 new guestrooms and a total investment of \$376 million. They are expected to generate approximately 2,590 jobs during construction and another 600 jobs during the operational stage.

Quality of Life

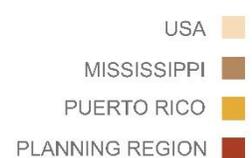
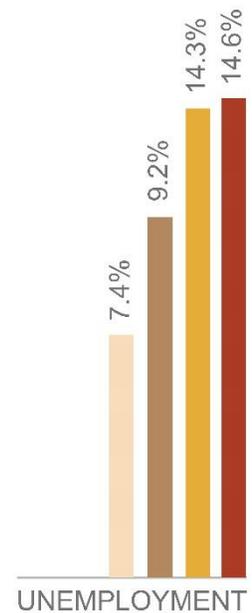
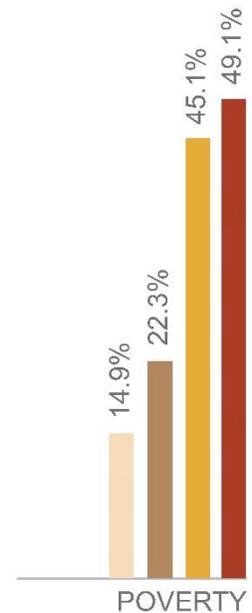
The increased nature-tourism development promoted by an enhanced, safer, robust multimodal transportation network between eastern PR and the island-municipalities, as

described in the previous section, would create much-needed job opportunities within this region. That, in turn, improves economic mobility among the US citizens, residents of Puerto Rico’s island-municipalities while maintaining a healthy environment for them. The World Tourism Organization (WTO) has stated that ecotourism development is key to eradicating poverty and protecting the environment.¹⁷

Poverty in Puerto Rico occurs at significantly higher rates than in the rest of the US.¹⁸ In 2012, the poverty rate of individuals in Puerto Rico (45.1%) was more than three times the Nationwide rate (14.9%) and almost double that of Mississippi (22.3%), which was the State with the highest family poverty rate.¹⁹ Also, the unemployment rate in Puerto Rico greatly exceeds that of the US. While the national unemployment rate is 7.4%, the rate in Puerto Rico is almost twice that figure (14.3%). The subject Planning Region show worse poverty and unemployment rates than the Puerto Rico averages (see Table 3).

Table 3 Poverty and Unemployment levels, PR vs. National levels²⁰

	<i>Poverty</i>	<i>Unemployment</i>	<i>Population</i>
United States	14.9%	7.4%	309,138,711
Puerto Rico	45.1%	14.3%	3,716,727
> Ceiba	41.0%	15.9%	13,726
> Culebra	57.1%	9.1%	1,535
> Naguabo	53.0%	17.4%	26,761
> Vieques	45.3%	16.0%	9,293
Total for the Planning Region	49.1%	14.6%	166,555



The proposed PLAN will improve the quality of life of over 166,000 US citizens living in the proposed Planning Region by promoting the development of safe, reliable, and economical transportation choices that:

- decrease their household transportation costs (by opening the current sole ferry provider to competition);
- reduce their dependence on shipped and expensive fuel in Vieques and Culebra (by improving public transportation and proposing non-motorized means of transportation);

¹⁷ UNWTO. (2013). UN General Assembly: ecotourism key to eradicating poverty and protecting environment. Press release. Retrieved on April 3, 2014 from: [<http://media.unwto.org/press-release/2013-01-03/un-general-assembly-ecotourism-key-eradicating-poverty-and-protecting-envir>

¹⁸USFS. (2009). El Yunque National Forest: Forest Plan Assessment. USDA See: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3794281.pdf

¹⁹ US Census Bureau, 2008-2012 American Community Survey and BLS, 2013.

²⁰ Source: US Census Bureau, 2008-2012 American Community Survey and Bureau of Labor Statistics (BLS), 2013.

- improve the internal mobility diversification within the proposed Planning Region (by adding a ferry route and proposing the construction of bike lanes);
- increase the accessibility to service and economic hubs for residents and visitors (by means of a new surface transportation route from NSRR to the island-municipalities), and that
- promote public health and fitness of US citizens by enabling access to additional healthcare facilities and encouraging the use of bicycles and hiking trails by residents and visitors. The PLAN will also explore the feasibility of incorporating a bike-sharing program focused on linking tourism points of interest with hotels and urban centers.

Currently, people in Vieques and Culebra have to travel off-shore to obtain medical care such as chemotherapy, dialysis, and for complicated childbirths. Emergency situations require that many US citizens that reside in these islands rely on a sole boat/ferry service to reach the main Island and receive these services. Indeed, the Report by the President’s Task Force on Puerto Rico’s Status, recognized health care access as one of the main problems affecting the people of Vieques.²¹ Vieques has a high incidence of people with chronic medical conditions. Thus, by enabling a shorter commuter boat & ferry route between Vieques and NSRR, this population may have faster and safer access to healthcare services in the main island, especially at a new clinic in Ceiba (in the process of construction) and at the former naval hospital located in Roosevelt Roads which is in the process of selecting a new operator.

The PLAN would greatly enhance accessibility from Roosevelt Roads to essential services and economic hubs in Ceiba, Naguabo, Fajardo, and Humacao. This would enable alternative routes for economically disadvantaged populations and senior citizens in these municipalities, as well as in Vieques and Culebra, to access education services (including universities like the Interamerican University Fajardo Campus and the University of Puerto Rico Humacao Campus), and job creators, among many other basic necessities.

In addition, the PLAN would improve access to the proposed, or ongoing, health care and education projects described in the previous section. These include: the hospital at Roosevelt Roads, the Roosevelt Roads high school, and CROEC in Ceiba.

Environmental Sustainability

There are various sustainability elements in the PLAN that will improve environmental conditions and also seek to avoid adverse environmental impacts. A reduction in CO₂ emissions is one of the positive impacts of this PLAN. **A shorter boat/ferry route would drastically reduce CO₂ emissions on each trip. It is estimated that the proposed shorter boat/ferry route would reduce CO₂ emissions to and from Isabel Segunda in Vieques by more than 30% (CO₂ emissions to and from Mosquito Pier would be reduced by 50%).** On the other hand, CO₂ emissions to and from Culebra would be more or less equal (+1%) as shown in Table 4.

²¹ The White House. (2011). Report by the President’s task Force on Puerto Rico’s Status. [http://www.whitehouse.gov/sites/default/files/uploads/Puerto_Rico_Task_Force_Report.pdf]

Table 4 Ferry routes CO2 emissions

Origin	Destination	Distance (n.m.)	CO2 emissions*	Difference with Fajardo Terminal (%)
Fajardo	Vieques (I.Segunda)	16.8	38.14	-
NSRR	Vieques (I.Segunda)	11.6	26.33	-31%
NSRR	Vieques (Mosquito)	8.4	19.07	-50%
Fajardo	Culebra (Dewey)	20.0	45.40	-
NSRR	Culebra (Dewey)	20.2	45.85	1%

* Lbs. per passenger per trip. Source: Carbon Independent

Using the above referenced data of 2.27 pounds of CO2 emissions per person per mile²² for ferry travel and use a ridership of 200,000 passengers per year, then the route of NSRR–Vieques (Mosquito) will save the emission of about 5,902,000 lbs (2,951 tons) of CO2 per year to the atmosphere, just for the passenger boats (freight ferry savings should be larger) when compared with Fajardo–Vieques (Isabel Segunda).

The PLAN will propose the use of “complete street” designs that foster the use of non-motorized transportation options (walking, biking) within Roosevelt Roads, and will also propose multimodal connections to Ceiba, Naguabo and between NSRR and major nodes of economic activity and services in Humacao and Fajardo. These measures will also reduce CO² emissions attributed to cars. In NSRR, the proposed complete streets concept would also provide an environmental friendly mode of access to important natural features that includes mangroves and other wildlife which are important components of the natural tourism concept envisioned for these lands.

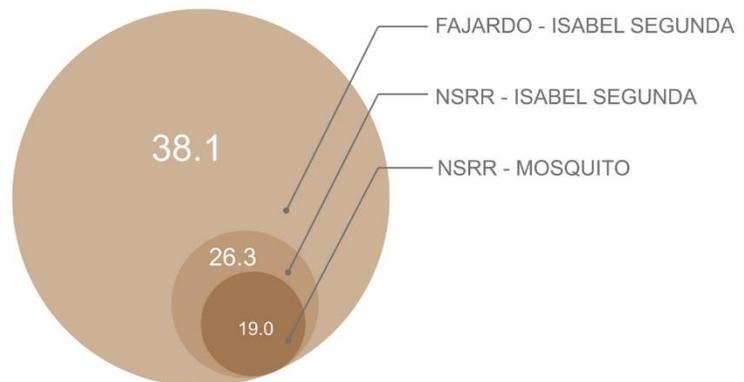


Figure 13 Vieques CO2 Footprint Comparison (lbs. per passenger per trip)

The PLAN will also examine a multimodal access to El Yunque National Forest through PR-191 and to various nature reserves in the Eastern region, promoting new accessible routes to these natural features to the underserved populations and alleviating contamination in the current, overused access roads.

Erosion is a major environmental problem, specifically in Vieques and Culebra, due to their topography and soil characteristics. This has affected coral reefs and marine life, and threatens dependent socioeconomic activities such as tourism and fishing. The proposed multimodal connections –including mass transit, bike and hiking trails- would reduce the need to build new or widen existing roads to meet the expected increase in visitors to the island-municipalities, and would provide transportation options with less impact to the soils. This non-point source of pollution problem will be considered in the design of the multimodal connections proposed in

²² The Carbon Independent (http://carbonindependent.org/sources_ferry.htm)

both island municipalities. Also, an improved multimodal transportation system would provide better access to many of the natural attractions in these two islands, such as the bioluminescent bay in Vieques and the Flamenco beach in Culebra, without compromising their conservation.

Safety

The PLAN will study the impacts of transportation infrastructure that currently lacks many basic safety features. **One example of the safety improvements that the PLAN will lead to are the upgrades to be designed for NSRR’s main roads, which were built over 50 years ago following utilitarian objectives with poor attention to non-military uses such as pedestrian and other non-motorized traffic, high volume of passenger cars, night-time driving, among others.** The ports infrastructure available in NSRR, although built to withstand the abuse of military uses, lacks basic safety measures and is prone to accidents that may cause harm and/or damage the delicate surrounding environment. Other area of concern relates to the ferry ports at Vieques and Culebra, which are located in relatively dense and unplanned areas that lack proper parking, maneuverability and cargo-staging capacity. These island-municipality ports are prone to accidents and more importantly are difficult to evacuate in cases of a catastrophic event or natural disaster.

The proposed PLAN will address the following safety issues:

- The current sole commuter boat & ferry service (run by the public agency ATM) use vessels that are aging and with poor maintenance, thus prone to accidents and mechanical down-time. A public-private partnership may ease the ATM burden by bringing new, safer vessels to the proposed routes.
- Current port facilities at Fajardo, Vieques and Culebra are overcrowded and need safety improvements. Over a million visitors per year use the very limited real estate available, taxing the ageing infrastructure in Vieques, Culebra and Fajardo. A new route with additional ports will ease the load on these existing port facilities.
- Roads in Vieques, Culebra, and Roosevelt Roads lack lighting, signaling, sidewalks and other safety measures, due partially to the military background of these facilities. The PLAN would propose “complete street” treatment for these main corridors. It will also study the feasibility of installing proper signage to guide tourists to the main attractions within the Planning Region, including El Yunque National Forest.
- There is a lack of safe routes for non-motorized users along the PLAN’s corridors. The PLAN will produce schematic designs and construction budgets for new bike lanes and pedestrian trails and sidewalks, bringing the projects closer to realization thus enhancing the safety of cyclists and pedestrians alike.
- Current port facilities present vulnerabilities to climate change (some areas are prone to flooding) and catastrophic weather events. For example, the Isabel Segunda Port in Vieques is susceptible to attracting underwater debris after strong current events that damage the arriving vessels. The PLAN will study and propose resilient solutions for mitigating the effects of climate change in economical, low-maintenance ways.

SECONDARY SELECTION CRITERIA

Innovation

An important feature of the proposed PLAN is that it would seek to apply innovative financing strategies that would make upcoming projects viable and hasten their implementation. In this direction several financing options would be assessed, among them the use of performance-based Public-Private-Partnerships as a procurement method for the commuter boat/ferry routes. Additional options that would be examined include provisions from the Puerto Rico Autonomous Municipalities Act (PR Law 81 of 1991) which allows for the establishment of municipality-owned enterprises, and the Municipal Economic and Tourism Development Incentives Act (PR Law 118 of 2010) which permit the use of Commonwealth revenue from tourism to be used for the development of infrastructure projects in the municipalities that foster environmental conservation and sustainable economic development.

Other innovations would include the use of sustainability rating systems (such as LEED²³ and Envision²⁴ certifications) for new and existing construction improvement projects. Finally, the PLAN will explore the feasibility of incorporating novel transportation systems such as a bike-sharing program focused on linking tourism points of interest with hotels and urban centers in Vieques and Culebra.

Partnership

Jurisdictional and Stakeholder Collaboration

The proposed regional plan will be developed with the collaboration of public, private and not for profit organizations that have different, but overlapping, interests and responsibilities related to the economic development, land use plans and policies, infrastructure, environmental protection, among other topics. The proposed PLAN will be prepared with input from the following entities, among others²⁵:

Commonwealth of Puerto Rico PR Infrastructure Financing Authority Roosevelt Roads Local Redevelopment Authority PR Tourism Company Office of the Vieques and Culebra Commissioner PR Department of Transportation and Public Works PR Department of Economic Development and Commerce	Municipalities Vieques Culebra Ceiba Naguabo
Non-government Organizations Northeast Technology Initiative	Federal Government US Forest Service Vieques Sustainability Taskforce Fish & Wildlife Service

Figure 14 The PLAN's main stakeholders

As previously described, the PLAN will be built out of a robust planning process that has been occurring since 2004 and has incorporated public participation as an essential component.

²³ <http://www.usgbc.org/leed/certification>

²⁴ <http://www.sustainableinfrastructure.org/rating/index.cfm>

²⁵ Northeast Technology Initiative, Inc. (INTENE by its Spanish acronym) is a nonprofit created in 2006 to promote economic and social development of the northeast region of Puerto Rico, by strengthening strategic partnerships between local governments, academia and business sectors.

Examples of public participation in the planning process include the Vieques and Culebra Sustainable Development Master Plan, the Roosevelt Roads Strategic Integration Plan and the Roosevelt Roads Redevelopment Master Plan.

The PLAN also seeks to meet one of the goals established by the Vieques Sustainability Task Force, created by the White House due to its deep interests in the subject of Vieques, which is to *“Advance sustainable economic development and job creation projects on Vieques”*.

Disciplinary Integration

The integration of professionals from various fields is essential for the development of this regional transportation plan. This interdisciplinary approach will prove useful in establishing the scope of the project, while providing the necessary insight to address complex issues. The team of professionals that would participate in the development of the PLAN includes, but is not limited to civil and transportation engineers, architects, urban planners, economists, lawyers, financial advisors and environmental scientists.

V. Project Readiness



Figure 15 PLAN Timeline

STATE AND LOCAL PLANNING

The proposed Eastern Puerto Rico Regional, Multimodal Transportation Plan is projected to take around 15 months to complete (see Figure 15). This shortened timeframe can be attained thanks to the PLAN’s objective of leveraging and capitalizing on projects already studied and included in recent planning documents that have been developed by the Commonwealth, which include important provisions regarding the comprehensive economic development for Puerto Rico’s Eastern Region. The development of these plans underwent extensive public participation and include the following:

- The approved Master Plan for the Redevelopment of the former Naval Station Roosevelt Roads in the municipalities of Ceiba and Naguabo (2012)
- The Puerto Rico 2040 Islandwide Long Range Transportation Plan
- The master plan for the Sustainable Development of Vieques and Culebra
- The Plan for the integration of Ceiba and Naguabo to the former base Roosevelt Roads

The proposed PLAN is a Commonwealth priority given that it would seek to address local priority issues regarding climate change, specifically those infrastructure needs identified in the PRCCC assessment report. In addition, the proposed PLAN would comply with Puerto Rico Executive Order 2013-016, issued by Governor Alejandro García Padilla, which states that infrastructure vulnerability to climate change in the Commonwealth must be assessed and addressed through adaptation planning.

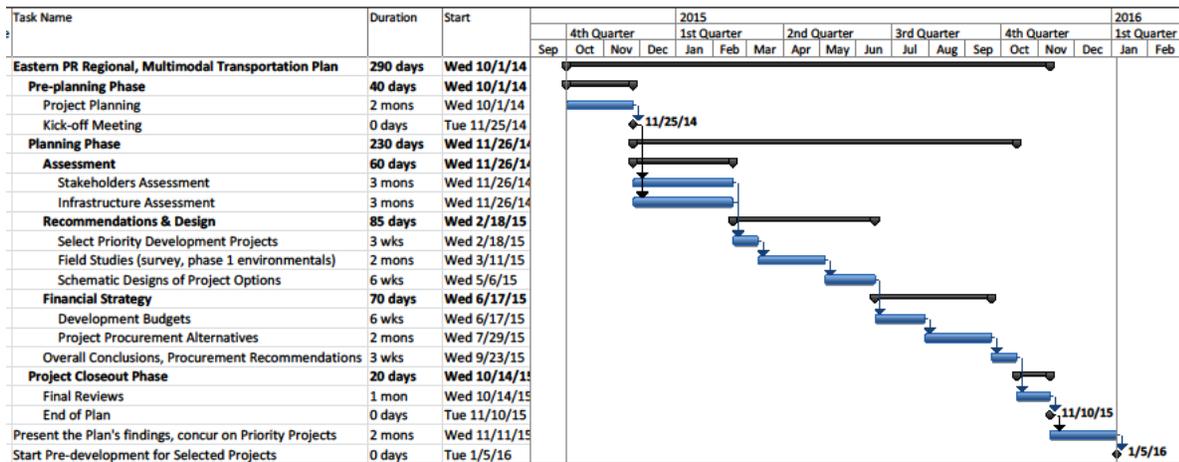
The results of this important PLAN will pave the way for improving the economic mobility of the US citizens living in the Economically Distressed Areas of Vieques, Culebra, Ceiba and Naguabo.

PROJECT SCHEDULE

Assuming the availability of funds, the PLAN is projected to start during the first week of October 2014 and end within Q1 2016 (see Table 5). The Planning/Design Phase of this PLAN will take almost four quarters, while the pre-planning and closeout phases will take the remaining quarter.

This schedule would allow the Commonwealth to be in a position to start the pre-development of one or more specific transportation projects related to this PLAN before the beginning of the 2016 Fiscal Year (which starts July 1st, 2016).

Table 5 Overall project schedule



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