



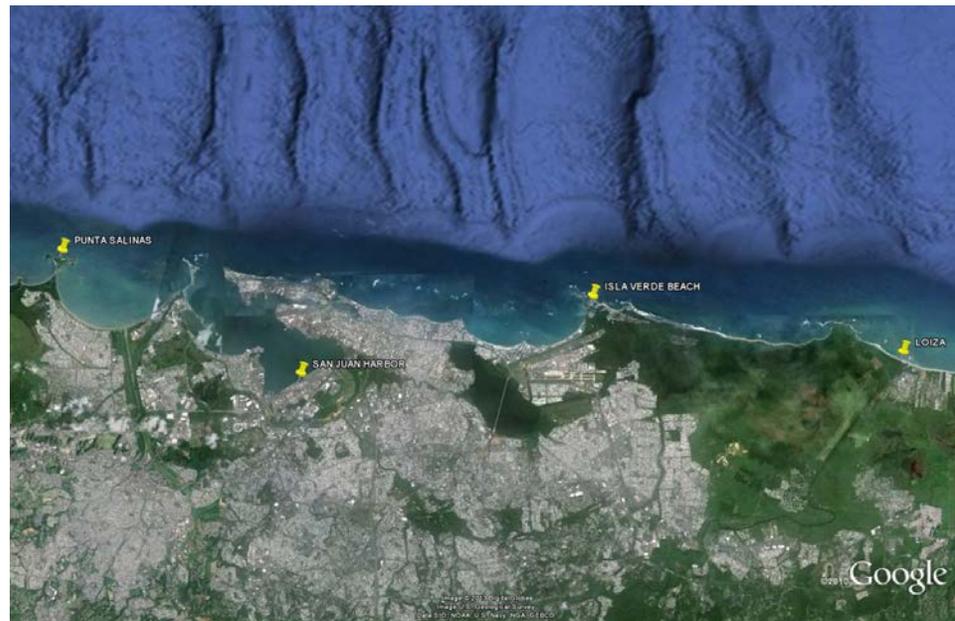
## Puerto Rico RSM, North Coast – San Juan Harbor Region

### Description

Puerto Rico falls within the AOR of Jacksonville District (SAJ). In the past, navigation and shore protection projects in Puerto Rico have been constructed and managed in a project-centric fashion, not considering the entire coastal system. The Puerto Rico Department of Natural and Environmental Resources (DNER) and academia in Puerto Rico are interested in addressing coastal erosion issues surrounding the deep draft San Juan Harbor Federal Navigation Project. FY14 work established a relationship between DNER, University of Puerto Rico (UPR), SAJ, and resource agencies. A conceptual sediment budget was developed and preliminary RSM strategies outlined by the stakeholder group. In FY15 SAJ proposes to:

- 1) Focus collaboration with resource agencies to address concerns over potential impacts to reefs from beach/nearshore placement of sand.
- 2) Coordinate with stakeholders to collect data and overcome challenges outlined in Task 1 and ultimately obtain permits to place sand on eroded shorelines, including beneficial use.
- 3) Use existing and new data to refine FY14 conceptual sediment budget and RSM strategies.
- 4) Explore EWN concepts in the region related to fringing reefs.

The RSM North Coast Region extends from Loiza in the east to Punta Salinas in the west. The coastline consists of pocket beaches with rocky headlands and are protected to a variable degree by a fringing reef system. This region contains two of the erosional area of local interest (Isla Verde Beach and Loiza) and the deep draft San Juan Harbor Federal Navigation Project in San Juan, P.R.





# Regional Sediment Management Program Jacksonville District (SAJ):



## Puerto Rico RSM, North Coast – San Juan Harbor Region

### Issue/Challenge To Address

Navigation and coastal projects in Puerto Rico have been managed in a project-centric fashion without consideration of the entire coastal system. Such practices have led to increased erosive pressure on the coast and loss of valuable sediment for beaches and coastal ecosystems.

### Successes Lessons Learned

In FY14, SAJ established a stakeholder group that jointly developed a conceptual sediment budget for the region. The budget led to discussions on preliminary RSM strategies, identifying accretional areas where sand could be backpassed or bypassed to erosional areas. The budget and strategies will be refined in FY15. Group discussions led to a Sea Grant proposal for funds to complete resource surveys in the study area as a baseline for future work (funds still pending).

### Expected Products

- Refined conceptual sediment budget and RSM/EWN strategies document
- Stakeholder data collection plan
- Stakeholder meeting
- Presentation at Annual RSM-EWN In Progress Review and meeting

### Stakeholders/Users

Stakeholder relationships established in FY14 include DNER, UPR, Sea Grant, NOAA, and the National Marine Fisheries Service (NMFS). FY15 efforts will focus on bringing more resource agencies to the table that would be involved with permitting beneficial use placement of dredged material.

### Projected Benefits

The emerging coastal program in Puerto Rico will benefit from starting with a holistic management strategy. Data sharing between agencies and programs will save time and funding. Beneficial use strategies for dredged material from San Juan Harbor could benefit the navigation business line as well as the region.

### Leveraging Opportunities

Opportunities exist to leverage RSM funding with San Juan Harbor Navigation project funds (GI, CG and O&M) as well as potential for partnering with DNER and University of Puerto Rico (UPR). Particularly, DNER is funding UPR to collect profile surveys on the north coast. SAJ is well placed to request UPR efforts focus on the San Juan RSM area.

Section 22 funding has been received for FY14/15 to evaluate dredging of a small boat harbor in Rincon (Figure 1) and beneficial use of the dredged sand. This project has many of the same environmental concerns as the San Juan Harbor RSM study. Work with resource agencies will be leveraged to address mutual concerns regarding turbidity, sedimentation, and reef impacts.

### Points of Contact

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