RSM-CX, Incorporation of RSM into SMART Planning

<u>BLUF:</u> This proposal seeks to assist PDTs in overcoming the challenges they face when trying to incorporate RSM into the SMART planning study process by figuring out when to start incorporating RSM philosophies, who the key players are that need to be involved (both within and outside the USACE), and some streamline techniques that may be applied. The expectation is that this proposal's resulting product will be utilized as a user-guide for other PDTs to integrate RSM into

their studies.

Challenge/Objectives

- SMART Planning studies are budget and timeconstrained
- Overcome the philosophy that the base plan is always the "easiest" and "cheapest" option

Approach

- Coordination with PDT on study development
- Coordination with environmental resources agencies





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District/Other USACE PDT Members

- Ashleigh Fountain-RSM Lead
- Paul DeMarco-Environmental Lead on Study
- Dick Powell-Planning Technical Lead on San Juan Harbor study
- Steve Conger-Engineering Technical Lead

Leveraging/Collaborative Opportunities

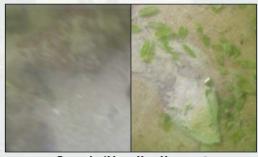
- Utilize existing information in the form of surveys and studies performed by the local agencies, ERDC, past studies, etc.
- non-Federal sponsor and environmental resource agencies for identified RSM initiatives
- Updated DMMP

Stakeholders and Partners

- Sponsor
- National Marine Fisheries Service
- USACE Regulatory
- U.S. Fish and Wildlife Service
- Any other environmental resource agencies



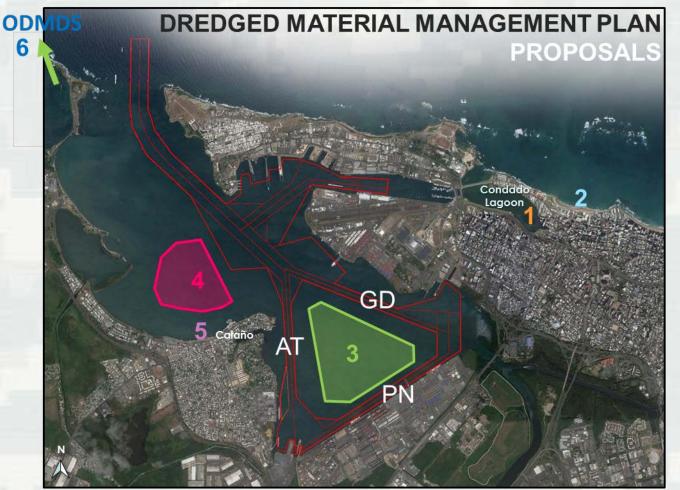
Endangered Species



Corals/Hardbottoms & Essential Fish Habitat (2016 Surveys)







Accomplishments/ Lessons Learned

Early engagement of the PDT

Early coordination with the agencies

ALTERNATIVE 1: Fill Dredge Holes in Condado Lagoon

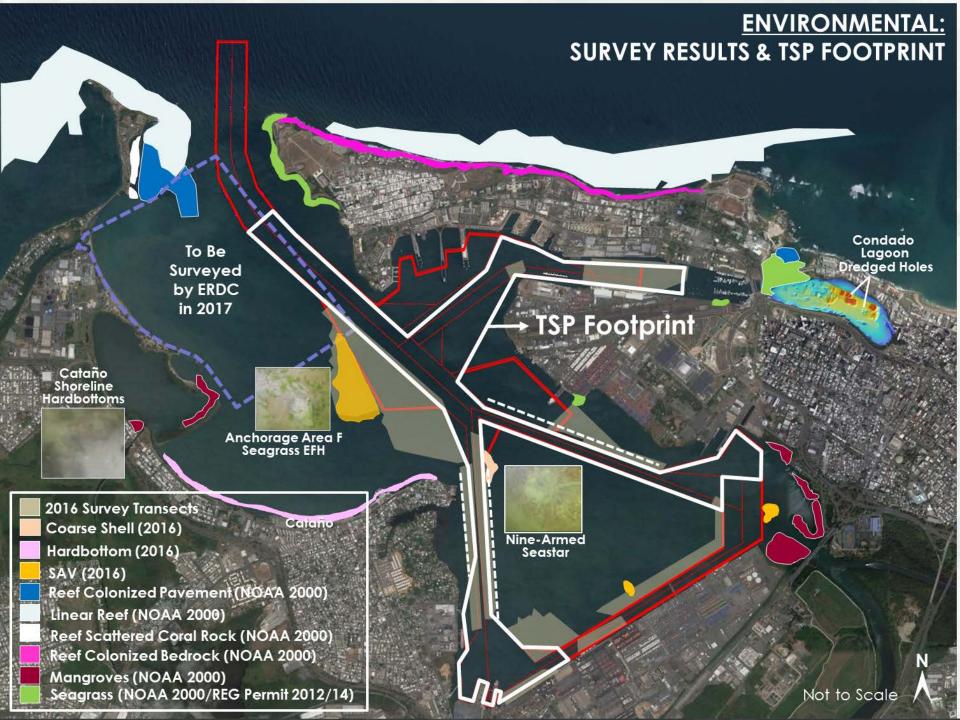
ALTERNATIVE 2: Beach nourishment

ALTERNATIVE 3: DMMA 1: Marsh restoration, oyster beds, mangroves, and essential fish habitat for the triangle area between Army Terminal (AT), Puerto Nuevo (PN), and Graving Dock (GD) channels

ALTERNATIVE 4: DMMA 2: North of Cataño

ALTERNATIVE 5: Cataño living shore-line plan

ALTERNATIVE 6: Ocean Dredged Material Disposal Site (ODMDS)-BASE PLAN



RSM-CX, Incorporation of RSM into SMART Planning What is working?

- If cost-savings is immediately apparent, there's much better buy-in
- Agencies engagement on beneficial use options earlier on

What is not working? Downs? Issues?

- Initial hurdle of incorporation of thinking about the beneficial use of dredged material
- Who's funding the additional work?
- Not a best management practice yet





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How is this project benefiting the USACE and Nation (efficiency, monetary, technical, relationship building, outreach, etc)

- Leveraging available information as a cost-savings to the project
- Resilience in the face of sea-level change with beneficially using dredged material and keeping it in the system
- Ultimate goal of achieving cost-savings by looking at the life-cycle costs including mitigation costs



