

FY14 RSM-EWN IPR

Jacksonville District, Fate of Fines POC: Jase Ousley

BLUF: The goal of the Fate of Fines study is to get more sand out of our sediment sources and beneficially use more of our O&M material.

Description/Challenges

- Originated with the SAND Study
- The ‘Sand Rule,’ State jurisdiction of fill areas, and reasonable assurance
- Statistically significant data set

Objectives

- Quantify total fines loss
- Coordinate findings with the State and regulating agencies
- Benefit O&M by allowing in situ material with higher than 20% fines for placement in the nearshore, or 10% fines on the beach, and reserving ODMDS and DMMA capacity.
- Benefit SPP by allowing increased numbers of fines from the B/A which will increase the amount of sand available for beach renourishment.

SAND Study (Table 6. Compatibility data for projects showing the borrow source and post-fill composite statistics)

Project/Year	Fill Volume	Sediment source	Source composite stats			Post-fill beach composite stats		
			Mean mm	Sorting phi	% passing #230	Mean mm	Sorting phi	% passing #230
Duval SPP, 2005	710,000 cy	Duval B/A "Area A"	0.25	1.15	3.4	0.25	0.85	0.70
Tampa Harbor O&M, Egmont Key, 2005	1.3 mcy	Egmont Channel and Mullet Key Cut	0.35	1.58	25	0.27	1.21	2.5
Ft. Pierce SPP, 2007	517,000 cy	Capron Shoal	0.43	0.97	1.8	0.80	1.34	0.10
IWW O&M, St Augustine Inlet, 2008	122,848 cy	IWW, St. Augustine Inlet	0.28	1.94	2.57	0.28	0.84	0.41
Lee Co. SPP, Captiva Island, 2008	98,270 cy	Borrow Site VI	0.40	1.04	0.87	0.51	1.34	0.53
IWW, Matanzas Inlet, 2009	288,847 cy	IWW, Matanzas Inlet	0.18	0.64	3.15	0.24	0.42	0.29
John's Pass O&M, 2010	250,000 cy	John's Pass Entrance Channel, Shoal east of channel	0.24, 0.16	0.73, 0.56	0.88, 1.89	0.22	1.07	0.21
Treasure Is Long Key SPP, 2010	180,000 cy	Blind Pass Entrance Channel	0.24	1.58	1.71	0.18	0.89	0.21
Duval SPP, 2011	689,015 cy	Duval B/A "A + A2"	0.17-0.26	-	1.70	0.25	0.87	1.18
IWW O&M, Bakers Haulover Inlet, 2011	33,000 cy	IWW, Bakers Haulover Inlet	0.28	1.30	6.48	0.67	0.72	0.20
Sand Key SPP, 2012	1.2 mcy	Borrow Area L	0.18	0.86	3.04	0.28	1.37	0.58



SPP: Shore Protection Project, O&M: Operation and Maintenance, IWW: Intracoastal Waterway, cy: cubic yards, mcy: million cubic yards

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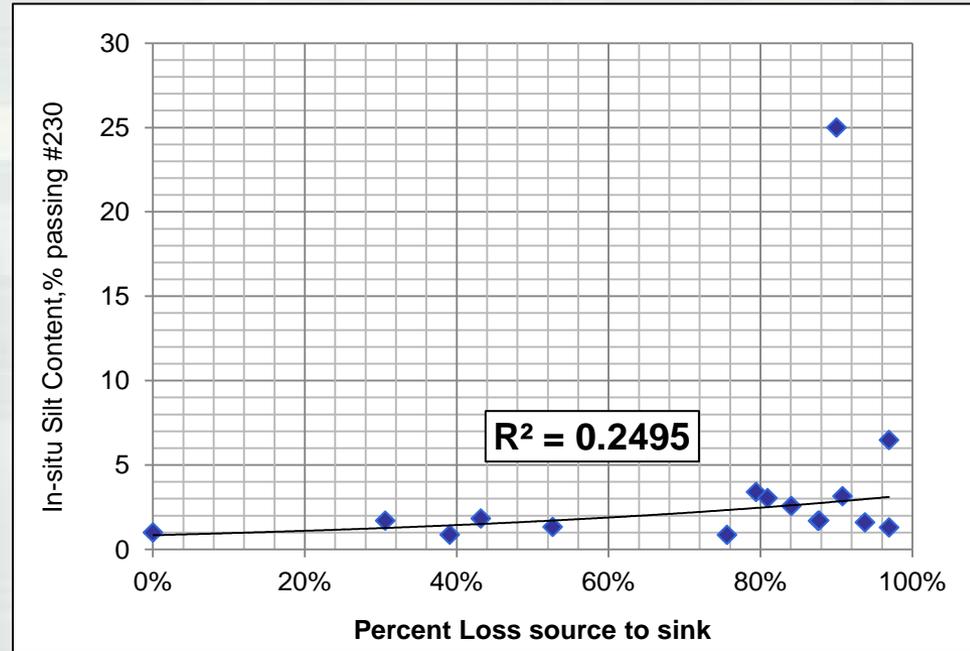


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Approach

- Historical Data
- Sample ongoing projects
- More comprehensive sampling to increase data density



Deliverables

Present findings at FSBPA/other tech conferences

FY15

Technical Note

FY15



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Accomplishments/Benefits/Lessons Learned/Actions-construction

143 historical projects at the State

FY14 projects sampled:

- Delray Beach SPP
- Hobe Sound O&M
- IWW Jupiter O&M
- Bal Harbor O&M
- North Boca SPP
- Ft. Pierce SPP
- Gasparilla SPP
- Ocean Ridge SPP
- Longboat Key SPP



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District PDT Members

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Matt Schrader
Mike Neves

Leveraging/Collaborative Opportunities

FY15 projects scheduled:

- Pinellas County (Long Key/Treasure Island)
- Palm Beach County (North Boca Raton)
- Sarasota Co (Venice)
- Palm Beach County Jupiter Carlin
- Jax Harbor O&M
- Kings Bay O&M
- Palm Beach Harbor O&M

Stakeholders and Partners

Florida DEP
Dredging Industry



Ship to Shore etc...

- Overflow
- Turbidity
- Where fines go and impacts

