



Evaluation of Turbidity Compliance Issues in the State of Florida Associated with Federal Navigation Projects

Description

Mobile and Jacksonville Districts propose to coordinate with the Florida Department of Environmental Protection (FDEP) and other agencies to establish realistic turbidity thresholds based on project data. Realistic thresholds should allow for increased potential to beneficially use dredged material and decrease dredge shut-down times associated with exceeding the thresholds.

Issue/Challenge to Address

Turbidity monitoring measurements are required for both dredging and placement operations. Meeting turbidity compliance requirements for dredging usually does not present significant issues. Meeting compliance requirements at the placement/discharge areas, however, can be problematic and may result in temporary shut downs of dredging activities. State turbidity requirements appear to have been developed arbitrarily without any real science or engineering justifications. Under normal conditions, to meet compliance conditions, turbidity levels must be no greater than 29 NTU's above background levels. If activities occur within an Aquatic Preserve, compliance levels must be 0 NTU's above background. The purpose of turbidity monitoring is to ensure that FDEP is upholding the water quality standards and also minimize impacts to resources due to turbidity generated by a project. However, with all the data that has been gathered historically, there are no adaptive project/site specific turbidity conditions being developed. Conditions in the permit must be adhered to without supporting documentation otherwise a project is deemed out-of-compliance causing potential shutdown of operations. Realistic turbidity thresholds should allow for increased potential to beneficially use dredged material and reduce costs by decreasing upland and offshore disposal and decreasing dredge shut-down times associated with exceeding set thresholds.

Successes Lessons Learned

Lessons learned will be documented during as a result of collaboration through this proposal.

Expected Products

- Technical Note to document collaboration and findings between Mobile and Jacksonville District
- MFR documenting outcomes and recommendations from meeting with FDEP
- A recommended joint strategy to implement realistic turbidity permit conditions

Stakeholders/Users

FDEP

Projected Benefits

The joint District effort will address state-wide turbidity issues constraining beach and nearshore placement efforts associated with coastal navigation projects. Knowledge from the effort could be applied in other coastal areas around the nation where turbidity has been identified as problematic when considering beneficial use opportunities. It is reasonable to assume that given the similarities between many coastal navigation projects involving beach placement activities for both SAJ and SAM that the information gleaned from the actual turbidity monitoring data throughout the State would apply towards evaluating and addressing turbidity issues. Based on this collaborative effort, results of



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information derived from real world turbidity monitoring and development of useful predictive tools, realistic turbidity thresholds may be established.

Leveraging Opportunities

This effort offers opportunities as a joint effort between Mobile and Jacksonville Districts to address state-wide turbidity issues constraining beach and nearshore placement efforts associated with coastal navigation projects. The RSM approach for demonstrating this type of disposal practice provides the ability to coordinate and collaborate; integrate numerous tools, technology, and data; leverage funding; and enhance partnerships.

Points of Contact

Sirisha Rayaprolu (Jacksonville District); Larry Parson (Mobile District)

Participating Partners

POCs are TBD but would include Florida Department of Environmental Protection; Project sponsors; Turbidity monitoring Industry stakeholders