



# Dredging Costs Analysis & Dredging Price Index

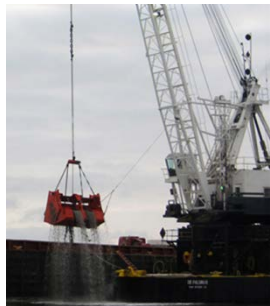
Dredging Innovations Group (DIG)

U.S. ARMY CORPS OF ENGINEERS

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## Problem

The US Army Corps of Engineers (USACE) annually dredges several hundred million cubic yards of sediment at a cost well over one billion dollars. Much of this work is performed by commercial dredging contractors who competitively bid for and are awarded dredging contracts. Bid offers from the private sector are evaluated against government cost estimates during this selection process. Other dredging work is performed by the Government owned dredging fleet. Given the large scale of these projects, even small improvements in cost effectiveness or process efficiency can result in considerable total savings. Realizing these improvements can be important for creating a resilient future in which USACE is able to “do more with less.”



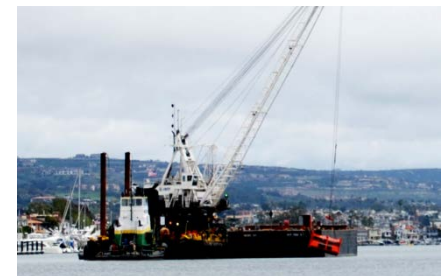
## Study Description

To further discussions centering on USACE dredging cost effectiveness and process improvements, this study undertakes several types of quantitative and qualitative analyses to provide insights from historical dredging cost data and dredging experts' observations and recommendations. Specifically, this study summarizes interviews with USACE and industry dredging practitioners and reports results of various statistical analyses performed on historical data from the USACE Navigation Data Center's Dredging Information System (DIS) related to dredging quantities, prices, locations, equipment types, placement site types, etc. These analyses focus on identifying and summarizing trends from past dredging events that can serve as benchmarks for forecasting future costs or identifying areas of potential

improvement.

## Products

This study resulted in three publications. One technical note titled *Dredging Cost and Process Insights from Interviews with USACE and Industry* summarizes qualitative observations and recommendations from interviews with dozens of dredging practitioners to identify current barriers to cost effectiveness and process efficiency and recommend strategies for improvement. A longer technical report titled *Dredging Cost Analysis: Historical Trends and Future Implications* shares the details of all of the statistical analyses performed with the DIS data, and an accompanying technical note titled *Summary of Dredging Cost Analysis: Historical Trends and Future Implications* summarizes the main findings of the longer technical report in a brief form suitable for a general audience.



## Summary

The interviews technical note summarizes over sixty observations and recommendations along the themes of competition in industry, contracting processes, cost drivers, industry involvement, and inter-district cooperation, especially focusing on summarizing effective strategies from one district or region that could be applied more broadly across USACE. The dredging cost analysis technical note and report summarize over a hundred pages of findings along the themes of identifying cost curves best fit to different types of dredging equipment or placement sites based on historical data, forecasting potential savings that could be captured by combining nearby projects for efficiency based on these cost curves, evaluating the predictive accuracy of government initial estimates of dredging contract costs, comparing differences between winning bid and government estimate for the most commonly used industry

*Addressing complex dredging challenges and building institutional capacity  
for long-term mission sustainability.*



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organizations, performing a sensitivity analysis of the USACE CEDEP dredging cost estimation program, comparing costs of emergency vs. non-emergency dredging events identified in the DIS database, and highlighting apparent dredging cost drivers.

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