Dredging Costs in the Modern Era

Or, so you finally found a way to get your project permitted. Can you afford it?
Examples of Dredging Costs Run Amok
Review Three Projects

- Oakland Deepening
- Richmond, CA Maintenance
- New York/New Jersey
Oakland 3E Deepening

• 4.5 million cy soft and very stiff clays and hard packed sand
• Busy Port
• Hyper Regulatory Environment
• Challenging Disposal Requirements Require Different Spreads of Equipment
Offshore Disposal

- **400K cy Disposed 60 nautical miles offshore.**
- **Large Class Clamshell Dredge(s)**
- **Big Tugs and Dump Scow(s) capable of working offshore environment**
Middle Harbor Disposal

• 1.5 million cy Disposed within the Port of Oakland

• Large Hydraulic Dredge Required to Meet Schedule
Hamilton Wetlands Disposal

- 2.6 million CY
- 14 nautical miles away, will require hydraulic offloader and BIG Boosters
- 35,000 feet pipelines to install and pump through
- Tight Fill Requirements (+/- 0.25 ft)
- Directly Adjacent to High Dollar Residential Areas
Oakland Electrification

• Build Substations
• Purchase Cable
• Build Cable Barges
• Installation
• Operating with Heavy Ship Traffic
Richmond/Oakland Maintenance (2004 - 2006)
As Bid

• 3 years work

• Each year 830,000 cubic yards (2.5 million cy total)

Anticipated Revenue $27 million ($10.80/cy)
Richmond/Oakland Maintenance (2004 - 2006)

Actual

• GL Mobilized the Large Clamshell #53, 2 Biggest Scows in our Fleet, and 3 Tugboats from East Coast

• Pay Quantity 130,000 cubic yards

• Job Terminated after 1 year

• Final Revenue $4.8 million ($37/cy)
NY/NJ Deepening

- Challenging Materials (Granites, Shales, Glacial Tills)
- Upland Disposal for nearly all recent sediments
- Extremely Busy Waterways
NY/NJ Maintenance Dredging

• Previously material disposed of offshore - $3 - $5 per cy (2006)
• Now nearly all needs to be processed with additives
• Final disposal upland
• Total cost $50-$90 per cy on average
NY/NJ Upland Processing

- Admixture 8-10% Portland Cement
- Trucking
- Upland Tipping Fees
Dredge #51
Now Where Do We Go From Here?
Dredge “New York”
HAPPY DREDGING.....