Additional Unloaders for SF Bay






1. **Why are we talking about unloaders?**

2. **How a contractor prices dredging**

3. **Conclusions**

Hydraulic Unloaders

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Intended Take-Aways

1. The system is set up to achieve the O&M navigation dredging mission at the lowest cost

2. As long as lower cost options exist, unloaders and upland disposal will not happen unless contractually mandated. The existence of another unloader in the bay area will not change this.

3. Dredge Prices are predictable and can be influenced by Owners






Major SF O&M Dredging Price History Since Hamilton

	Oakland O&M				Richmond Inner O&M			
YR	YDS	Mil $	$/cy	Bid	YDS	Mil $	$/cy	Bid
10'	600k / 1.3m	$12.7	$20.44	Ham vs. Dods	600k	$14.5	$22.79	Ham/11 vs. Dods/11
11'	840k / 1.2m	$21.2	$17.12	Dods vs. Upl-11	600k	$11.1	$18.39	SBA-Dods
12'	925k	$17.5	$18.93	Dods vs. Upl-11	320k	$8.6	$27.05	SBA-Dods vs. Upl
13'	460k	$11.3	$24.54	Upl/Dods/11				
14'	158k	$4.5	$28.70	Upl	268k	$7.8	$29.02	SBA-Dods vs. Upl
14'	316k	$10.0	$31.61	Upl				






How a Contractor Prices Dredging

1. Anticipated Contractor Costs

- Mobilization Expense
- **Capital Cost Recovery**
  - **Capital Investment Recovery Period**
  - **Anticipated Utilization (Operating Days per Year)**
- Other Daily Costs (Labor / Fuel/ Maint & Wear/ Overheads)
- Fully Allocated Cost Divided by Estimated Production = Unit Price

2. Perceived Risk

- Production Variation
- Re-Work
- Unanticipated Non-Recoverable Costs (Delays, Third Party)

3. Market Conditions

- The Level of Competition
  - The location and availability of competitor equipment
  - The Estimated Cost for the Competition

Impact of Expected Utilization on Price

	Scenaio 1- Positive Outlook		Scenario 2- Uncertain Outlook	
Capital Equipment Newbuild Cost	$35,000,000		$35,000,000	
Capital Recovery Period	20 yr		5 yr	
Cost of Money	7%		7%	
Annual Capital Cost	$2,600,000		$6,600,000	
Anticipated Average Annual Op Days	200		120	
Daily Capital Cost Allocation	**$13,000**	12%	**$55,000**	35%
Labor	$25,000	24%	$25,000	16%
Fuel, Maint & Wear	$35,000	33%	$35,000	22%
Field Overhead	$10,000	9%	$10,000	6%
Home Office Overhead	$12,450	12%	$18,750	12%
Profit	$10,000	9%	$14,000	9%
Total Daily Cost	**$105,450**	**100%**	**$157,750**	**100%**
Expected Production	**7,500 cys/day**		**7,500 cys/day**	
Unit Price	**$14**	**150%**	**$21**	






To Drive Down the Cost of a Dredging Program:

1. **Consolidate your equipment type requirements** so you end up having enough work (by equipment type) to give contractors an expectation of reasonable annual utilization.

2. **Provide as much long term certainty as possible on the type of equipment needed.** This will help facilitate contractor investment in new equipment (i.e. more efficient tools and/or more bidders)

3. **Bundle Work to Maximize the Yardage Dug per Mobilization**

4. **Ensure your Project Design and Permit Expectations are Achievable within Standard Industry Equipment and Practices**

To Drive Up the Cost of a Dredging Program:

Routinely Change Dredging Equipment and Disposal Equipment Requirements (i.e. large ABS dump barges, smaller inbay dump barges, upland unloaders, electric equipment, long pipelines / no pipeline.)

Force work into time of year windows, resulting in a spike in equipment required and then a long periods of no utilization opportunities

Fracture and already small market by carving out major pieces of work as small business set-asides






Take-Aways on Influencing Dredge Prices

- **Owners and Stakeholders Can Influence Prices**
- **Confidence in the Out-year Requirements Facilitates the Investment that Leads to Greater Efficiency and Competition**
- **Windows are Expensive** (by limiting avg ann operating days)
- **Promote clarity in achievable, measurable, enforceable and necessary Requirements**
- **Uncertainty is Expensive**

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