Cost, Logistical and Funding Considerations for Upland Disposal of Dredged Material in SF Bay

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SVP, West Coast Regional Manager
Outline

1. Recent History of the two largest Federal O&M projects (Oakland & Richmond)
2. The Logistics of Mobilizing an Unloader to the Bay Area (Time & Money)
3. Dredge Pricing Considerations
4. Dredge Funding Considerations
5. Suggestions for the Region
### Post Hamilton History of Oakland and Richmond Federal O&M

<table>
<thead>
<tr>
<th>YR</th>
<th>YDS</th>
<th>Mil $</th>
<th>$/cy</th>
<th>Bid</th>
<th>YDS</th>
<th>Mil $</th>
<th>$/cy</th>
<th>Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>10’</td>
<td>600k / 1.3m</td>
<td>$12.7</td>
<td>$20.44</td>
<td>Ham vs. Dods</td>
<td>600k</td>
<td>$14.5</td>
<td>$22.79</td>
<td>Ham/11 vs. Dods/11</td>
</tr>
<tr>
<td>11’</td>
<td>840k / 1.2m</td>
<td>$21.2</td>
<td>$17.12</td>
<td>Dods vs. Upl–11</td>
<td>600k</td>
<td>$11.1</td>
<td>$18.39</td>
<td>SBA–Dods</td>
</tr>
<tr>
<td>12’</td>
<td>925k</td>
<td>$17.5</td>
<td>$18.93</td>
<td>Dods vs. Upl–11</td>
<td>320k</td>
<td>$8.6</td>
<td>$27.05</td>
<td>SBA–Dods vs. Upl</td>
</tr>
<tr>
<td>13’</td>
<td>460k</td>
<td>$11.3</td>
<td>$24.54</td>
<td>Upl/Dods/11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14’</td>
<td>158k</td>
<td>$4.5</td>
<td>$28.70</td>
<td>Upl</td>
<td>268k</td>
<td>$7.8</td>
<td>$29.02</td>
<td>SBA–Dods vs. Upl</td>
</tr>
<tr>
<td>14’</td>
<td>316k</td>
<td>$10.0</td>
<td>$31.61</td>
<td>Upl</td>
<td></td>
<td></td>
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Since Hamilton, in alternate bid schedules, Dods low every time, even with up to 38% SF–11 in upland bid alternate. Hamilton unloading was funded separately.
### Logistics of Unloader Mobilization

**Time & Money**

<table>
<thead>
<tr>
<th>Unloader Size</th>
<th>Investment</th>
<th>Lead Time</th>
<th>Production Capacity.cy/hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>$3–$6 mil</td>
<td>12 mo</td>
<td>500 cy/hr</td>
</tr>
<tr>
<td>Medium</td>
<td>$5–15 mil</td>
<td>14 mo</td>
<td>1,500 cy/hr</td>
</tr>
<tr>
<td>Large</td>
<td>$10–20 mil</td>
<td>18 mo</td>
<td>4,000cy/hr</td>
</tr>
</tbody>
</table>

*Unload Time Impacts Dredge System Throughput*
Capital Cost Recovery + Daily Operating Cost

• Daily Cost Divided By System Throughput

• Average Production

Unit Cost

• = $/Cy

Capital Cost Recovery—How many projects, years, cubic yards?
Federal O&M Funding Considerations

- SF-11 $8-$12/Cy
- SFDODS $20-$25/Cy
- Upland $30-$35/Cy

• Federal Navigation Mission at Lowest Cost = Max SF11 with Balance to SFDODS
• No Upland
Suggestions for the Region

1. Come to Resolution on Disposal of Federal O&M Material Upland at Increased Cost vs. Ocean

2. Commit to a Long Term Disposal Scheme for Federal O&M, providing equipment requirement certainty

3. Bundle Work to Maximize Volume per Mobilization

4. Stop Fracturing the Already Small West Coast Dredging Market with Small Business Set-asides and paying 20%-30% premium with limited funding.

Ex. Redwood City Low Bid $12.3 mil, Manson quote $8.2 Richmond Results Similar +/- 20% SBA premium