

**COST SUMMARY**  
**SMALL PROJECT DREDGING WITH DISPOSAL IN BAY - SCENARIO 1**  
**(21 CY Clamshell Dredge, with Scows, 22 N. Miles)**

Mobilization and Demobilization

\$ **84,000**

Dredge	Transport	Placem
37,280	46,720	

Operating Costs

1	Clamshell Dredge	1.00	Months @ \$	268,211	268,211
0	Hyd. Unloader	1.00	Months @ \$	434,486	0
0	Booster Pump	1.00	Months @ \$	144,040	0
2	Towing Tug	1.00	Months @ \$	224,232	448,464
1	Tending Tug	1.00	Months @ \$	80,840	80,840
1	Survey/Crewboat	1.00	Months @ \$	43,039	43,039
4	Dump Scows	1.00	Months @ \$	6,250	25,000
0	Shore Crew	1.00	Months @ \$	140,555	0
1	Superv/Engrg	1.00	Months @ \$	84,540	84,540

268,211		
	448,464	
80,840		
43,039		
	25,000	
38,296	46,244	

Total Operating Costs

\$ **950,094**

430,386	519,708	
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Ownership Costs

1	Clamshell Dredge	1.00	Months @ \$	171,079	171,079
0	Hyd. Unloader	1.00	Months @ \$	82,280	0
0	Booster Pump	1.00	Months @ \$	16,255	0
2	Towing Tug	1.00	Months @ \$	65,706	131,412
1	Tending Tug	1.00	Months @ \$	12,248	12,248
1	Survey/Crewboat	1.00	Months @ \$	8,252	8,252
4	Dump Scows	1.00	Months @ \$	36,994	147,976

171,079		
	131,412	
12,248		
8,252		
	147,976	

Total Ownership Costs

\$ **470,967**

191,579	279,388	
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Market Factor @ **50%**

**235,484**

95,790	139,694	
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Overhead @ **15%**

Total Direct Costs

\$ **1,185,578**

526,176	659,402	
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**177,837**

78,926	98,910	
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Sub Total

\$ **1,363,415**

605,102	758,312	
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**136,342**

60,510	75,831	
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**204,512**

90,765	113,747	
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Sub Total

\$ **1,704,269**

756,377	947,890	
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**8,521**

3,782	4,739	
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Total Dredge Price

\$ **1,712,790**

760,159	952,630	
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1,712,790 Dredge Price \$

= **3.93** \$/CY

1.74	2.18	0.00
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436,000 Pay Cubic Yards/ Month

84,000 Mobilization Price \$

= **8.40** \$/CY

10,000 Total Pay Cubic Yards

**COST SUMMARY**  
**SMALL PROJECT DREDGING WITH DISPOSAL IN BAY - SCENARIO 2**  
**(21 CY Clamshell Dredge, with Scows, 5 N. Miles)**

				Dredge	Transport	Placement	
Mobilization and Demobilization				\$ 84,000	50,198	33,802	0
<b>Operating Costs</b>							
1	Clamshell Dredge	1.00	Months @ \$ 268,211	268,211			
0	Hyd. Unloader	1.00	Months @ \$ 434,486	0			0
0	Booster Pump	1.00	Months @ \$ 144,040	0			0
1	Towing Tug	1.00	Months @ \$ 224,232	224,232		224,232	
1	Tending Tug	1.00	Months @ \$ 80,840	80,840			80,840
1	Survey/Crewboat	1.00	Months @ \$ 43,039	43,039			43,039
3	Dump Scows	1.00	Months @ \$ 6,250	18,750		18,750	
0	Shore Crew	1.00	Months @ \$ 140,555	0			0
1	Superv/Engrg	1.00	Months @ \$ 84,540	84,540		32,345	0
	<b>Total Operating Costs</b>			\$ 719,612	444,285	275,327	0
<b>Ownership Costs</b>							
1	Clamshell Dredge	1.00	Months @ \$ 171,079	171,079			171,079
0	Hyd. Unloader	1.00	Months @ \$ 82,280	0			0
0	Booster Pump	1.00	Months @ \$ 16,255	0			0
1	Towing Tug	1.00	Months @ \$ 65,706	65,706		65,706	
1	Tending Tug	1.00	Months @ \$ 12,248	12,248			12,248
1	Survey/Crewboat	1.00	Months @ \$ 8,252	8,252			8,252
3	Dump Scows	1.00	Months @ \$ 36,994	110,982		110,982	
	<b>Total Ownership Costs</b>			\$ 368,267	191,579	176,688	0
Market Factor @	50%			184,134	95,790	88,344	0
	<b>Total Direct Costs</b>			\$ 903,746	540,074	363,671	0
Overhead @	15%			135,562	81,011	54,551	0
	<b>Sub Total</b>			\$ 1,039,308	621,085	418,222	0
Contingency @	10%			103,931	62,109	41,822	0
Profit @	15%			155,896	93,163	62,733	0
	<b>Sub Total</b>			\$ 1,299,135	776,356	522,778	0
Bond @	0.5%			6,496	3,882	2,614	0
	<b>Total Dredge Price</b>			\$ 1,305,631	780,238	525,392	0
	1,305,631 Dredge Price \$						
	436,000 Pay Cubic Yards/ Month			= 2.99 \$/CY	1.79	1.21	0.00
	84,000 Mobilization Price \$						
	50,000 Total Pay Cubic Yards			= 1.68 \$/CY			



**COST SUMMARY**  
**SMALL PROJECT DREDGING WITH DISPOSAL IN OCEAN - SCENARIO 1**  
**(21 CY Clamshell Dredge, with Scows, 80 N. Miles)**

				Dredge	Transport	Place
Mobilization and Demobilization				\$ 84,000	18,392	65,608
<b>Operating Costs</b>						
1	Clamshell Dredge	1.00	Months @ \$ 268,211	268,211	268,211	
0	Hyd. Unloader	1.00	Months @ \$ 434,486	0		
0	Booster Pump	1.00	Months @ \$ 144,040	0		
6	Towing Tug	1.00	Months @ \$ 224,232	1,345,392	1,345,392	
1	Tending Tug	1.00	Months @ \$ 80,840	80,840	80,840	
1	Survey/Crewboat	1.00	Months @ \$ 43,039	43,039	43,039	
8	Dump Scows	1.00	Months @ \$ 6,250	50,000	50,000	
0	Shore Crew	1.00	Months @ \$ 140,555	0		
1	Superv/Engrg	1.00	Months @ \$ 84,540	84,540	84,540	
<b>Total Operating Costs</b>				\$ 1,872,022	410,634	1,461,388
<b>Ownership Costs</b>						
1	Clamshell Dredge	1.00	Months @ \$ 171,079	171,079	171,079	
0	Hyd. Unloader	1.00	Months @ \$ 82,280	0		
0	Booster Pump	1.00	Months @ \$ 16,255	0		
6	Towing Tug	1.00	Months @ \$ 65,706	394,236	394,236	
1	Tending Tug	1.00	Months @ \$ 12,248	12,248	12,248	
1	Survey/Crewboat	1.00	Months @ \$ 8,252	8,252	8,252	
8	Dump Scows	1.00	Months @ \$ 36,994	295,952	295,952	
<b>Total Ownership Costs</b>				\$ 881,767	191,579	690,188
Market Factor @	50%			440,884	95,790	345,094
<b>Total Direct Costs</b>				\$ 2,312,906	506,424	1,806,482
Overhead @	15%			346,936	75,964	270,972
<b>Sub Total</b>				\$ 2,659,842	582,387	2,077,454
Contingency @	10%			265,984	58,239	207,745
Profit @	15%			398,976	87,358	311,618
<b>Sub Total</b>				\$ 3,324,802	727,984	2,596,818
Bond @	0.5%			16,624	3,640	12,984
<b>Total Dredge Price</b>				\$ 3,341,426	731,624	2,609,802
3,341,426 Dredge Price \$				= 7.66 \$/CY	1.68	5.99
436,000 Pay Cubic Yards/ Month						
84,000 Mobilization Price \$				= 8.40 \$/CY		
10,000 Total Pay Cubic Yards						

**COST SUMMARY**  
**SMALL PROJECT DREDGING WITH DISPOSAL IN OCEAN - SCENARIO 2**  
 (21 CY Clamshell Dredge, with Scows, 62 N. Miles)

				Dredge	Transport	Placement	
<b>Mobilization and Demobilization</b>				\$ 84,000	21,058	62,942	0
<b>Operating Costs</b>							
1 Clamshell Dredge	1.00	Months @ \$	268,211	268,211	268,211		0
0 Hyd. Unloader	1.00	Months @ \$	434,486	0			0
0 Booster Pump	1.00	Months @ \$	144,040	0			0
5 Towing Tug	1.00	Months @ \$	224,232	1,121,160	1,121,160		
1 Tending Tug	1.00	Months @ \$	80,840	80,840			
1 Survey/Crewboat	1.00	Months @ \$	43,039	43,039	43,039		
7 Dump Scows	1.00	Months @ \$	6,250	43,750		43,750	
0 Shore Crew	1.00	Months @ \$	140,555	0			0
1 Superv/Engrg	1.00	Months @ \$	84,540	84,540	21,289	63,251	0
<b>Total Operating Costs</b>				\$ 1,641,540	413,379	1,228,161	0
<b>Ownership Costs</b>							
1 Clamshell Dredge	1.00	Months @ \$	171,079	171,079	171,079		
0 Hyd. Unloader	1.00	Months @ \$	82,280	0			0
0 Booster Pump	1.00	Months @ \$	16,255	0			0
5 Towing Tug	1.00	Months @ \$	65,706	328,530	328,530		
1 Tending Tug	1.00	Months @ \$	12,248	12,248			
1 Survey/Crewboat	1.00	Months @ \$	8,252	8,252	8,252		
7 Dump Scows	1.00	Months @ \$	36,994	258,958		258,958	
<b>Total Ownership Costs</b>				\$ 779,067	191,579	587,488	0
Market Factor @	50%			389,534	95,790	293,744	0
<b>Total Direct Costs</b>				\$ 2,031,074	509,169	1,521,905	0
Overhead @	15%			304,661	76,375	228,286	0
<b>Sub Total</b>				\$ 2,335,735	585,544	1,750,191	0
Contingency @	10%			233,574	58,554	175,019	0
Profit @	15%			350,360	87,832	262,529	0
<b>Sub Total</b>				\$ 2,919,669	731,930	2,187,738	0
Bond @	0.5%			14,598	3,660	10,939	0
<b>Total Dredge Price</b>				\$ 2,934,267	735,590	2,198,677	0
2,934,267 Dredge Price \$							
----- =				6.73	1.69	5.04	0.00
436,000 Pay Cubic Yards/ Month							
84,000 Mobilization Price \$							
----- =				1.68			
50,000 Total Pay Cubic Yards							



**COST SUMMARY**  
**SMALL PROJECT DREDGING WITH DISPOSAL AT TIDAL WETLANDS - SCENARIO 1**  
 (21 CY Clamshell Dredge, with Lightly Loaded Scows, 43 N. Miles)

				Dredge	Transport	Placem
<b>Mobilization and Demobilization</b>				\$ 84,000	37,280	46,720
<b>Operating Costs</b>						
1	Clamshell Dredge	1.00	Months @ \$ 268,211	268,211		
0	Hyd. Unloader	1.00	Months @ \$ 434,486	0		
0	Booster Pump	1.00	Months @ \$ 144,040	0		
5	Towing Tug	1.00	Months @ \$ 224,232	1,121,160		
1	Tending Tug	1.00	Months @ \$ 80,840	80,840	1,121,160	
1	Survey/Crewboat	1.00	Months @ \$ 43,039	43,039	80,840	
7	Dump Scows	1.00	Months @ \$ 6,250	43,750	43,039	
0	Shore Crew	1.00	Months @ \$ 140,555	0	43,750	
1	Superv/Engrg	1.00	Months @ \$ 52,631	52,631	13,254	39,377
<b>Total Operating Costs</b>				\$ 1,609,631	405,344	1,204,287
<b>Ownership Costs</b>						
1	Clamshell Dredge	1.00	Months @ \$ 171,079	171,079		
0	Hyd. Unloader	1.00	Months @ \$ 82,280	0		
0	Booster Pump	1.00	Months @ \$ 16,255	0		
5	Towing Tug	1.00	Months @ \$ 65,706	328,530		
1	Tending Tug	1.00	Months @ \$ 12,248	12,248	328,530	
1	Survey/Crewboat	1.00	Months @ \$ 8,252	8,252	12,248	
7	Dump Scows	1.00	Months @ \$ 36,994	258,958	8,252	
<b>Total Ownership Costs</b>				\$ 779,067	191,579	587,488
<b>Market Factor @ 50%</b>				389,534	95,790	293,744
<b>Overhead @ 15%</b>						
<b>Contingency @ 10%</b>						
<b>Profit @ 15%</b>						
<b>Bond @ 0.5%</b>						
<b>Total Direct Costs</b>				\$ 1,999,165	501,133	1,498,031
				299,875	75,170	224,705
<b>Sub Total</b>				\$ 2,299,040	576,303	1,722,736
				229,904	57,630	172,274
				344,856	86,445	258,410
<b>Sub Total</b>				\$ 2,873,800	720,379	2,153,420
				14,369	3,602	10,767
<b>Total Dredge Price</b>				\$ 2,888,169	723,981	2,164,187
					1.66	4.96

$$\frac{84,000 \text{ Mobilization Price } \$}{10,000 \text{ Total Pay Cubic Yards}} = 8.40 \text{ } \$/\text{CY}$$