

**APPENDIX D.**  
**DETAILED COST ESTIMATES AND SUPPORTING INFORMATION**

**Table D-1. Summary of Engineer's Estimates<sup>1</sup> for Alternatives 1 to 5. Costs in Millions of Dollars**

<b>Alternative</b>	<b>Area A</b>	<b>Area B</b>	<b>Area C</b>	<b>Total</b>
1	\$4.0	\$2.6	--	<b>\$6.6</b>
2	\$42.6	\$16.0	\$3.3	<b>\$61.8</b>
3	\$69.3	\$55.5	\$5.2	<b>\$130.0</b>
4	\$108.4	\$55.5	\$5.2	<b>\$169.0</b>
5	\$99.8	\$59.0	\$50.4	<b>\$209.3</b>
	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	
5 <sup>2</sup>	\$110.4	\$48.8	\$50.5	<b>\$209.7</b>

**Notes**

1 - Estimated construction costs include a 35% contingency

2 - The cost estimate for phasing Alternative 5 is higher due to the construction of a temporary levee

**Table D-2. Estimated Volumes of Excess Material to Be Stockpiled and Rough Calculation of Possible Stockpile Areas and Number of Truck Loads.**

	Stockpile Volume (CY)				Stockpile Volume (ac-ft)				5-ft High Stockpile Areas (ac) <sup>1</sup>				10-ft High Stockpile Areas (ac) <sup>1</sup>				No. Truck Loads <sup>2</sup>
	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Total
<b>Alternative 1</b>	86,400	-	-	86,400	50	-	-	<b>50</b>	11	-	-	<b>11</b>	6	-	-	<b>6</b>	<b>8,640</b>
<b>Alternative 2</b>	955,900	196,040	89,500	1,241,440	590	120	60	<b>770</b>	120	25	13	<b>158</b>	62	14	7	<b>83</b>	<b>124,144</b>
<b>Alternative 3</b>	1,684,880	963,700	141,000	2,789,580	1,040	600	90	<b>1,730</b>	211	122	19	<b>352</b>	108	63	10	<b>182</b>	<b>278,958</b>
<b>Alternative 4</b>	2,748,440	963,700	141,000	3,853,140	1,700	600	90	<b>2,390</b>	344	122	19	<b>485</b>	176	63	10	<b>249</b>	<b>385,314</b>
<b>Alternative 5</b>	2,665,700	1,218,100	1,347,800	5,231,600	1,650	760	840	<b>3,250</b>	334	155	171	<b>659</b>	170	80	88	<b>338</b>	<b>523,160</b>
	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>		
<b>Alternative 5</b>	2,889,960	923,500	1,344,600	5,158,060	1,790	570	830	<b>3,190</b>	362	116	169	<b>647</b>	185	60	87	<b>332</b>	<b>515,806</b>

**Notes**

1- Assumes circular stockpile with 5:1 (h:v) side slopes.

Area calculation uses insitu volume and does not account for losses, bulking, or compaction.

Table D-3. Summary of Estimated Costs<sup>1</sup> for Disposal Options. Costs in Millions of Dollars

	Alt 1				Alt 2				Alt 3				Alt 4				Alt 5				Alt 5 with Phasing <sup>2</sup>			
	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Area A	Area B	Area C	Total	Phase 1	Phase 2	Phase 3	Total <sup>2</sup>
<b>On-Site Work</b>	\$4.0	\$2.6	--	<b>\$6.6</b>	\$42.6	\$16.0	\$3.3	<b>\$61.8</b>	\$69.3	\$55.5	\$5.2	<b>\$130.0</b>	\$108.4	\$55.5	\$5.2	<b>\$169.0</b>	\$99.8	\$59.0	\$50.4	<b>\$209.3</b>	\$110.4	\$48.8	\$50.5	<b>\$209.7</b>
<b>Disposal Volume (CY)</b>	86,400	0	0	<b>86,400</b>	955,900	196,040	89,500	<b>1,241,440</b>	1,684,880	963,700	141,000	<b>2,789,580</b>	2,748,440	963,700	141,000	<b>3,853,140</b>	2,665,700	1,218,100	1,347,800	<b>5,231,600</b>	2,889,960	923,500	1,344,600	<b>5,158,060</b>
<b>Off-Site Disposal Options</b>																								
<b>Option 1 / 2</b>	<b>Unload Dredged Material at POLA / Disposal at CDF at POLA</b>																							
	\$1.3	--	--	<b>\$1.3</b>	\$14.7	\$3.0	\$1.4	<b>\$19.1</b>	\$26.0	\$14.8	\$2.2	<b>\$43.0</b>	\$42.3	\$14.8	\$2.2	<b>\$59.4</b>	\$41.1	\$18.8	\$20.8	<b>\$81.0</b>	\$44.5	\$14.2	\$20.7	<b>\$81.0</b>
<b>Option 3</b>	<b>Beneficial Use - Landfill Cover</b>																							
	\$4.2	--	--	<b>\$4.2</b>	\$45.9	\$9.4	\$4.3	<b>\$59.7</b>	\$81.0	\$46.3	\$6.8	<b>\$134.1</b>	\$132.1	\$46.3	\$6.8	<b>\$185.2</b>	\$128.1	\$58.5	\$64.8	<b>\$252.6</b>	\$138.9	\$44.4	\$64.6	<b>\$252.6</b>
<b>Option 4</b>	<b>Disposal at Hazardous Waste Landfill<sup>3</sup></b>																							
<b>Option 5</b>	<b>Offshore Disposal (low end of range)</b>																							
	\$1.3	--	--	<b>\$1.3</b>	\$14.7	\$3.0	\$1.4	<b>\$19.1</b>	\$26.0	\$14.8	\$2.2	<b>\$43.0</b>	\$42.3	\$14.8	\$2.2	<b>\$59.4</b>	\$41.1	\$18.8	\$20.8	<b>\$81.0</b>	\$44.5	\$14.2	\$20.7	<b>\$81.0</b>
	<b>Offshore Disposal (high end of range)</b>																							
	\$3.6	--	--	<b>\$3.6</b>	\$39.3	\$8.1	\$3.7	<b>\$51.0</b>	\$69.2	\$39.6	\$5.8	<b>\$114.6</b>	\$112.9	\$39.6	\$5.8	<b>\$158.3</b>	\$109.5	\$50.0	\$55.4	<b>\$216.0</b>	\$118.7	\$37.9	\$55.2	<b>\$216.0</b>
<b>Option 6</b>	<b>Beach Disposal (low end of range)</b>																							
	\$1.3	--	--	<b>\$1.3</b>	\$14.7	\$3.0	\$1.4	<b>\$19.1</b>	\$26.0	\$14.8	\$2.2	<b>\$43.0</b>	\$42.3	\$14.8	\$2.2	<b>\$59.4</b>	\$41.1	\$18.8	\$20.8	<b>\$81.0</b>	\$44.5	\$14.2	\$20.7	<b>\$81.0</b>
	<b>Beach Disposal (high end of range)</b>																							
	\$2.7	--	--	<b>\$2.7</b>	\$29.5	\$6.0	\$2.8	<b>\$38.3</b>	\$51.9	\$29.7	\$4.3	<b>\$86.0</b>	\$84.7	\$29.7	\$4.3	<b>\$118.7</b>	\$82.1	\$37.5	\$41.5	<b>\$162.0</b>	\$89.1	\$28.5	\$41.4	<b>\$162.0</b>
<b>Grand Totals for Disposal Options</b>																								
<b>Option 1 / 2</b>	<b>Unload Dredged Material at POLA / Disposal at CDF at POLA</b>																							
	\$5.4	--	--	<b>\$5.4</b>	\$57.3	\$19.0	\$4.7	<b>\$81.0</b>	\$95.3	\$70.4	\$7.4	<b>\$173.0</b>	\$150.7	\$70.4	\$7.4	<b>\$228.4</b>	\$140.9	\$77.8	\$71.2	<b>\$290.3</b>	\$155.0	\$63.1	\$71.2	<b>\$290.7</b>
<b>Option 3</b>	<b>Beneficial Use - Landfill Cover</b>																							
	\$8.2	--	--	<b>\$8.2</b>	\$88.5	\$25.4	\$7.6	<b>\$121.5</b>	\$150.3	\$101.8	\$12.0	<b>\$264.1</b>	\$240.4	\$101.8	\$12.0	<b>\$354.2</b>	\$227.9	\$117.6	\$115.2	<b>\$461.9</b>	\$249.3	\$93.2	\$115.1	<b>\$462.3</b>
<b>Option 4</b>	<b>Disposal at Hazardous Waste Landfill<sup>3</sup></b>																							
<b>Option 5</b>	<b>Offshore Disposal (low end of range)</b>																							
	\$5.4	--	--	<b>\$5.4</b>	\$57.3	\$19.0	\$4.7	<b>\$81.0</b>	\$95.3	\$70.4	\$7.4	<b>\$173.0</b>	\$150.7	\$70.4	\$7.4	<b>\$228.4</b>	\$140.9	\$77.8	\$71.2	<b>\$290.3</b>	\$155.0	\$63.1	\$71.2	<b>\$290.7</b>
	<b>Offshore Disposal (high end of range)</b>																							
	\$7.6	--	--	<b>\$7.6</b>	\$81.9	\$24.0	\$7.0	<b>\$112.9</b>	\$138.6	\$95.1	\$11.0	<b>\$244.6</b>	\$221.3	\$95.1	\$11.0	<b>\$327.4</b>	\$209.3	\$109.1	\$105.8	<b>\$425.2</b>	\$229.2	\$86.8	\$105.7	<b>\$425.7</b>
<b>Option 6</b>	<b>Beach Disposal (low end of range)</b>																							
	\$5.4	--	--	<b>\$5.4</b>	\$57.3	\$19.0	\$4.7	<b>\$81.0</b>	\$95.3	\$70.4	\$7.4	<b>\$173.0</b>	\$150.7	\$70.4	\$7.4	<b>\$228.4</b>	\$140.9	\$77.8	\$71.2	<b>\$290.3</b>	\$155.0	\$63.1	\$71.2	<b>\$290.7</b>
	<b>Beach Disposal (high end of range)</b>																							
	\$6.7	--	--	<b>\$6.7</b>	\$72.1	\$22.0	\$6.0	<b>\$100.1</b>	\$121.3	\$85.2	\$9.5	<b>\$216.0</b>	\$193.1	\$85.2	\$9.5	<b>\$287.8</b>	\$181.9	\$96.6	\$92.0	<b>\$371.2</b>	\$199.5	\$77.3	\$91.9	<b>\$371.7</b>

Notes

1 - Estimated construction costs include a 35% contingency

2 - The cost estimate for phasing Alternative 5 is higher due to the construction of a temporary levee

3 - Estimate not included for Beneficial Use - Landfill Cover, contaminant report pending

**Table D-4. Summary of Unit Costs and Cost Estimate Assuptions**

Unit Costs		Notes	
Item	Description	Unit	Unit Cost
<b>Mobilization</b>			
1	Mobilization	LS	8% of subtotal used as a typical value. This value may be high.
<b>Demolition</b>			
2	Demo culvert, daylight channel	LF	\$1,000
<b>Excavation</b>			
3	Excavate to Marshplain	CY	Excavation of material only. Transportation included in Item 9.
4	New Ballona Creek	CY	\$15 Excavate material from existing grade to marshplain elevation.
5	Channels Order 5	CY	\$15 Excavate material to create new Ballona Creek channel.
6	Channels Order 4	CY	\$15 Excavate material to create large channels
7	Channels Order 3	CY	\$15 Excavate material to create medium channels
8	Breach	CY	\$15 Excavate material to create small channels
<b>Transportation</b>			
9	Onsite trucking	CY	Transportation of excavated material only. Placement of material in stockpile included in Item 12. Truck transportation of excavated material to locations of fill and stockpile in each sub-area. \$5 Does not include transportation between sub-areas.
<b>New Levees</b>			
10	Levee Fill - no road	CY	\$10 Levee construction using earth fill from material excavated onsite in each sub-area
11	Levee Fill - with road	CY	\$17 Levee construction per above and paved roadway.
<b>Stockpile</b>			
12	Place material at stockpile	CY	Placement of excavated material in excess of fill material in a stockpile in each sub-area. \$5 Excavation (Items 3-8) and transporation (Item 9) included separately.
<b>Levee Lowering and Ballona Creek Fill</b>			
13	Levee Lowering	CY	Excavation of earth material from existing levees along Ballona Creek. Removal and salvage \$5 of rip rap included in Item 15.
14	Ballona Creek Fill	CY	Fill placement in existing Ballona Creek channel by sidecasting excavated material from levee \$5 lowering to fill Ballona Creek and using some excavated material (Items 2-8)
15	Salvage Rip Rap	CY	\$10 Removal of rip-rap from existing levees
16	Buried rock protection	CY	Assumes half the salvaged volume is used for protection and remainder is taken off-site for use \$20 by contractor
<b>Water Control Structures</b>			
17	Culvert	SF	\$2,010 New culvert
18	Tide Gate	LS	\$100,000 New tide gate for culvert
<b>Subtotal</b>			
<b>Contingency</b>			35% contingency included for concept-level cost estimate.
<b>Total</b>			

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>			
	Mobilization	LS	8% of subtotal used as a typical value. This value may be high.
	Sediment Removal	CY	\$3 From POLA / Weston
	Barge Sediment (approx. 30 NM)	CY	\$4.50 From POLA / Weston
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	CY	\$3 From POLA / Weston
<b>Subtotal</b>			
<b>Contingency</b>			35% contingency included for concept-level cost estimate.
<b>Total for Option 1</b>			
<b>3 Beneficial Use - Landfill Cover</b>			
	Mobilization	LS	8% of subtotal used as a typical value. This value may be high.
	Sediment Removal	CY	\$3 From POLA / Weston
	Barge Sediment (approx. 30 NM)	CY	\$5 From POLA / Weston
	Stockpiling & Staging Material at POLA/CY		\$1 From POLA / Weston
	Truck Material to Site (100 mi at \$0.20/cy)	CY	\$20 From POLA / Weston
	Placement, grading, compaction at Site	CY	\$4.25 From POLA / Weston
<b>Subtotal</b>			
<b>Contingency</b>			35% contingency included for concept-level cost estimate.
<b>Total for Option 2</b>			
<b>4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending</b>			
<b>5 Offshore Disposal<sup>1</sup></b>			
	Mobilization	LS	8% of subtotal used as a typical value. This value may be high.
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	CY	Based on \$28 per cubic meter cost from Upper Newport Bay project for dredging and disposal about three miles offshore provide by SCC
<b>Subtotal</b>			
<b>Contingency</b>			35% contingency included for concept-level cost estimate.
<b>Total for Option 3</b>			
<b>6 Beach Disposal<sup>1</sup></b>			
	Mobilization	LS	
	Sediment Removal and Beach Disposal	CY	\$21 Based on cost for Option 1 / 2 with additional \$10/CY premium for beach disposal
<b>Subtotal</b>			
<b>Contingency</b>			
<b>Total for Option 4</b>			

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 1 Area A**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$240,000</b>
1	Mobilization		1 LS	\$240,000	\$240,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$1,642,500</b>
3	Excavate to Marshplain	109,500	CY	\$15	\$1,642,500
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	0	CY	\$15	\$0
7	Channels Order 3	0	CY	\$15	\$0
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$547,500</b>
9	Onsite trucking	109,500	CY	\$5	\$547,500
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$547,500</b>
12	Place material at stockpile	109,500	CY	\$5	\$547,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$2,977,500</b>
<b>Contingency</b>					<b>\$1,042,200</b>
<b>Total</b>					<b>\$4,019,700</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$79,000	\$79,000
	Sediment Removal	86,400	CY	\$3	\$259,200
	Barge Sediment				
	(approx. 30 NM)	86,400	CY	\$4.50	\$388,800
	Unload Dredged Material				
	(hydraulic unloader) or				
	Disposal at CDF	86,400	CY	\$3	\$259,200
<b>Subtotal</b>					<b>\$986,200</b>
<b>Contingency</b>					<b>\$345,200</b>
<b>Total for Option 1</b>					<b>\$1,331,400</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$247,000	\$247,000
	Sediment Removal	86,400	CY	\$3	\$259,200
	Barge Sediment				
	(approx. 30 NM)	86,400	CY	\$4.50	\$388,800
	Stockpiling & Staging				
	Material at POLA	86,400	CY	\$1	\$86,400
	Truck Material to Site (100				
	mi at \$0.20/cy)	86,400	CY	\$20	\$1,728,000
	Placement, grading,				
	compaction at Site	86,400	CY	\$4.25	\$367,200
<b>Subtotal</b>					<b>\$3,076,600</b>
<b>Contingency</b>					<b>\$1,076,900</b>
<b>Total for Option 2</b>					<b>\$4,153,500</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$211,000	\$211,000
	Sediment Removal and				
	Offshore Disposal (approx.				
	3 mi offshore)	86,400	CY	\$28	\$2,419,200
<b>Subtotal</b>					<b>\$2,630,200</b>
<b>Contingency</b>					<b>\$920,600</b>
<b>Total for Option 3</b>					<b>\$3,550,800</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$158,000	\$158,000
	Sediment Removal and				
	Beach Disposal	86,400	CY	\$21	\$1,814,400
<b>Subtotal</b>					<b>\$1,972,400</b>
<b>Contingency</b>					<b>\$690,300</b>
<b>Total for Option 4</b>					<b>\$2,662,700</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$5,351,100</b>
<b>3 Upland Disposal</b>	<b>\$8,173,200</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$7,570,500</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$6,682,400</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 1 Area B**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$160,000</b>
1	Mobilization		1 LS	\$160,000	\$160,000
<b>Demolition</b>					<b>\$1,400,000</b>
2	Demo culvert, daylight chan	1,400	LF	\$1,000	\$1,400,000
<b>Excavation</b>					<b>0 CY</b>
3	Excavate to Marshplain	0	CY	\$15	\$0
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	0	CY	\$15	\$0
7	Channels Order 3	0	CY	\$15	\$0
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>23,100 CY</b>
9	Onsite trucking	23,100	CY	\$5	\$115,500
<b>New Levees</b>					<b>23,100 CY</b>
10	Levee Fill - no road	23,100	CY	\$10	\$231,000
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>0 CY</b>
12	Place material at stockpile	0	CY	\$5	\$0
<b>Levee Lowering and Ballona Creek Fill</b>					<b>0 CY</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>0 SF</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$1,906,500</b>
<b>Contingency</b>					<b>35%</b>
<b>Total</b>					<b>\$2,573,800</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$0	\$0
	Sediment Removal		0 CY	\$3	\$0
	Barge Sediment (approx. 30 NM)		0 CY	\$4.50	\$0
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF		0 CY	\$3	\$0
<b>Subtotal</b>					<b>\$0</b>
<b>Contingency</b>					<b>35%</b>
<b>Total for Option 1</b>					<b>\$0</b>
<b>3 Beneficial Use - Landfill Cover</b>					
	Mobilization		1 LS	\$0	\$0
	Sediment Removal		0 CY	\$3	\$0
	Barge Sediment (approx. 30 NM)		0 CY	\$4.50	\$0
	Stockpiling & Staging Material at POLA		0 CY	\$1	\$0
	Truck Material to Site (100 mi at \$0.20/cy)		0 CY	\$20	\$0
	Placement, grading, compaction at Site		0 CY	\$4.25	\$0
<b>Subtotal</b>					<b>\$0</b>
<b>Contingency</b>					<b>35%</b>
<b>Total for Option 2</b>					<b>\$0</b>
<b>4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending</b>					
<b>5 Offshore Disposal <sup>1</sup></b>					
	Mobilization		1 LS	\$0	\$0
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)		0 CY	\$28	\$0
<b>Subtotal</b>					<b>\$0</b>
<b>Contingency</b>					<b>35%</b>
<b>Total for Option 3</b>					<b>\$0</b>
<b>6 Beach Disposal <sup>1</sup></b>					
	Mobilization		1 LS	\$0	\$0
	Sediment Removal and Beach Disposal		0 CY	\$21	\$0
<b>Subtotal</b>					<b>\$0</b>
<b>Contingency</b>					<b>35%</b>
<b>Total for Option 4</b>					<b>\$0</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$2,573,800</b>
<b>3 Upland Disposal</b>	<b>\$2,573,800</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$2,573,800</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$2,573,800</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 2 Area A**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$2,530,000</b>
1	Mobilization		1 LS	\$2,530,000	\$2,530,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$14,338,500</b>
3	Excavate to Marshplain	951,700	CY	\$15	\$14,275,500
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	2,430	CY	\$15	\$36,450
7	Channels Order 3	1,770	CY	\$15	\$26,550
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$4,779,500</b>
9	Onsite trucking	955,900	CY	\$5	\$4,779,500
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$4,779,500</b>
12	Place material at stockpile	955,900	CY	\$5	\$4,779,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$5,125,000</b>
17	Culvert	2,500	SF	\$2,010	\$5,025,000
18	Tide Gate	1	LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$31,552,500</b>
<b>Contingency</b>					<b>\$11,043,400</b>
<b>Total</b>					<b>\$42,595,900</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization	1	LS	\$873,000	\$873,000
	Sediment Removal	955,900	CY	\$3	\$2,867,700
	Barge Sediment (approx. 30 NM)	955,900	CY	\$4.50	\$4,301,550
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	955,900	CY	\$3	\$2,867,700
<b>Subtotal</b>					<b>\$10,909,950</b>
<b>Contingency</b>					<b>\$3,818,500</b>
<b>Total for Option 1</b>					<b>\$14,728,450</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization	1	LS	\$2,723,000	\$2,723,000
	Sediment Removal	955,900	CY	\$3	\$2,867,700
	Barge Sediment (approx. 30 NM)	955,900	CY	\$4.50	\$4,301,550
	Stockpiling & Staging Material at POLA	955,900	CY	\$1	\$955,900
	Truck Material to Site (100 mi at \$0.20/cy)	955,900	CY	\$20	\$19,118,000
	Placement, grading, compaction at Site	955,900	CY	\$4.25	\$4,062,575
<b>Subtotal</b>					<b>\$34,028,725</b>
<b>Contingency</b>					<b>\$11,910,100</b>
<b>Total for Option 2</b>					<b>\$45,938,825</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization	1	LS	\$2,328,000	\$2,328,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	955,900	CY	\$28	\$26,765,200
<b>Subtotal</b>					<b>\$29,093,200</b>
<b>Contingency</b>					<b>\$10,182,700</b>
<b>Total for Option 3</b>					<b>\$39,275,900</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization	1	LS	\$1,746,000	\$1,746,000
	Sediment Removal and Beach Disposal	955,900	CY	\$21	\$20,073,900
<b>Subtotal</b>					<b>\$21,819,900</b>
<b>Contingency</b>					<b>\$7,637,000</b>
<b>Total for Option 4</b>					<b>\$29,456,900</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$57,324,350</b>
<b>3 Upland Disposal</b>	<b>\$88,534,725</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$81,871,800</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$72,052,800</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 2 Area B**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$950,000</b>
1	Mobilization		1 LS	\$950,000	\$950,000
<b>Demolition</b>					<b>\$1,400,000</b>
2	Demo culvert, daylight chan	1,400	LF	\$1,000	\$1,400,000
<b>Excavation</b>					<b>\$4,169,550</b>
3	Excavate to Marshplain	274,400	CY	\$15	\$4,116,000
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	2,040	CY	\$15	\$30,600
7	Channels Order 3	1,530	CY	\$15	\$22,950
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$1,389,850</b>
9	Onsite trucking	277,970	CY	\$5	\$1,389,850
<b>New Levees</b>					<b>\$819,300</b>
10	Levee Fill - no road	81,930	CY	\$10	\$819,300
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$980,200</b>
12	Place material at stockpile	196,040	CY	\$5	\$980,200
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$2,110,000</b>
17	Culvert	1,000	SF	\$2,010	\$2,010,000
18	Tide Gate	1	LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$11,818,900</b>
<b>Contingency</b>					<b>\$4,136,700</b>
<b>Total</b>					<b>\$15,955,600</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization	1	LS	\$179,000	\$179,000
	Sediment Removal	196,040	CY	\$3	\$588,120
	Barge Sediment (approx. 30 NM)	196,040	CY	\$4.50	\$882,180
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	196,040	CY	\$3	\$588,120
<b>Subtotal</b>					<b>\$2,237,420</b>
<b>Contingency</b>					<b>\$783,100</b>
<b>Total for Option 1</b>					<b>\$3,020,520</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization	1	LS	\$559,000	\$559,000
	Sediment Removal	196,040	CY	\$3	\$588,120
	Barge Sediment (approx. 30 NM)	196,040	CY	\$4.50	\$882,180
	Stockpiling & Staging Material at POLA	196,040	CY	\$1	\$196,040
	Truck Material to Site (100 mi at \$0.20/cy)	196,040	CY	\$20	\$3,920,800
	Placement, grading, compaction at Site	196,040	CY	\$4.25	\$833,170
<b>Subtotal</b>					<b>\$6,979,310</b>
<b>Contingency</b>					<b>\$2,442,800</b>
<b>Total for Option 2</b>					<b>\$9,422,110</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal<sup>1</sup>**

	Mobilization	1	LS	\$478,000	\$478,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	196,040	CY	\$28	\$5,489,120
<b>Subtotal</b>					<b>\$5,967,120</b>
<b>Contingency</b>					<b>\$2,088,500</b>
<b>Total for Option 3</b>					<b>\$8,055,620</b>

**6 Beach Disposal<sup>1</sup>**

	Mobilization	1	LS	\$358,000	\$358,000
	Sediment Removal and Beach Disposal	196,040	CY	\$21	\$4,116,840
<b>Subtotal</b>					<b>\$4,474,840</b>
<b>Contingency</b>					<b>\$1,566,200</b>
<b>Total for Option 4</b>					<b>\$6,041,040</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$18,976,120</b>
<b>3 Upland Disposal</b>	<b>\$25,377,710</b>
<b>5 Offshore Disposal<sup>1</sup></b>	<b>\$24,011,220</b>
<b>6 Beach Disposal<sup>1</sup></b>	<b>\$21,996,640</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 2 Area C**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$200,000</b>
1	Mobilization		1 LS	\$200,000	\$200,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$1,342,500</b>
3	Excavate to Marshplain	89,500	CY	\$15	\$1,342,500
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	0	CY	\$15	\$0
7	Channels Order 3	0	CY	\$15	\$0
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$447,500</b>
9	Onsite trucking	89,500	CY	\$5	\$447,500
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$447,500</b>
12	Place material at stockpile	89,500	CY	\$5	\$447,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$2,437,500</b>
<b>Contingency</b>					<b>\$853,200</b>
<b>Total</b>					<b>\$3,290,700</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$82,000	\$82,000
	Sediment Removal	89,500	CY	\$3	\$268,500
	Barge Sediment (approx. 30 NM)	89,500	CY	\$4.50	\$402,750
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	89,500	CY	\$3	\$268,500
<b>Subtotal</b>					<b>\$1,021,750</b>
<b>Contingency</b>					<b>\$357,700</b>
<b>Total for Option 1</b>					<b>\$1,379,450</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$255,000	\$255,000
	Sediment Removal	89,500	CY	\$3	\$268,500
	Barge Sediment (approx. 30 NM)	89,500	CY	\$4.50	\$402,750
	Stockpiling & Staging Material at POLA	89,500	CY	\$1	\$89,500
	Truck Material to Site (100 mi at \$0.20/cy)	89,500	CY	\$20	\$1,790,000
	Placement, grading, compaction at Site	89,500	CY	\$4.25	\$380,375
<b>Subtotal</b>					<b>\$3,186,125</b>
<b>Contingency</b>					<b>\$1,115,200</b>
<b>Total for Option 2</b>					<b>\$4,301,325</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal<sup>1</sup>**

	Mobilization		1 LS	\$218,000	\$218,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	89,500	CY	\$28	\$2,506,000
<b>Subtotal</b>					<b>\$2,724,000</b>
<b>Contingency</b>					<b>\$953,400</b>
<b>Total for Option 3</b>					<b>\$3,677,400</b>

**6 Beach Disposal<sup>1</sup>**

	Mobilization		1 LS	\$164,000	\$164,000
	Sediment Removal and Beach Disposal	89,500	CY	\$21	\$1,879,500
<b>Subtotal</b>					<b>\$2,043,500</b>
<b>Contingency</b>					<b>\$715,200</b>
<b>Total for Option 4</b>					<b>\$2,758,700</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$4,670,150</b>
<b>3 Upland Disposal</b>	<b>\$7,592,025</b>
<b>5 Offshore Disposal<sup>1</sup></b>	<b>\$6,968,100</b>
<b>6 Beach Disposal<sup>1</sup></b>	<b>\$6,049,400</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 3 Area A**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$4,110,000</b>
1	Mobilization		1 LS	\$4,110,000	\$4,110,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$25,273,200</b>
3	Excavate to Marshplain	1,673,700	CY	\$15	\$25,105,500
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	3,540	CY	\$15	\$53,100
6	Channels Order 4	4,240	CY	\$15	\$63,600
7	Channels Order 3	3,400	CY	\$15	\$51,000
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$8,424,400</b>
9	Onsite trucking	1,684,880	CY	\$5	\$8,424,400
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$8,424,400</b>
12	Stockpile	1,684,880	CY	\$5	\$8,424,400
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$5,125,000</b>
17	Culvert	2,500	SF	\$2,010	\$5,025,000
18	Tide Gate	1	LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$51,357,000</b>
<b>Contingency</b>					<b>\$17,975,000</b>
<b>Total</b>					<b>\$69,332,000</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$1,539,000	\$1,539,000
	Sediment Removal	1,684,880	CY	\$3	\$5,054,640
	Barge Sediment (approx. 30 NM)	1,684,880	CY	\$4.50	\$7,581,960
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	1,684,880	CY	\$3	\$5,054,640
<b>Subtotal</b>					<b>\$19,230,240</b>
<b>Contingency</b>					<b>\$6,730,600</b>
<b>Total for Option 1</b>					<b>\$25,960,840</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$4,799,000	\$4,799,000
	Sediment Removal	1,684,880	CY	\$3	\$5,054,640
	Barge Sediment (approx. 30 NM)	1,684,880	CY	\$4.50	\$7,581,960
	Stockpiling & Staging Material at POLA	1,684,880	CY	\$1	\$1,684,880
	Truck Material to Site (100 mi at \$0.20/cy)	1,684,880	CY	\$20	\$33,697,600
	Placement, grading, compaction at Site	1,684,880	CY	\$4.25	\$7,160,740
<b>Subtotal</b>					<b>\$59,978,820</b>
<b>Contingency</b>					<b>\$20,992,600</b>
<b>Total for Option 2</b>					<b>\$80,971,420</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$4,103,000	\$4,103,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	1,684,880	CY	\$28	\$47,176,640
<b>Subtotal</b>					<b>\$51,279,640</b>
<b>Contingency</b>					<b>\$17,947,900</b>
<b>Total for Option 3</b>					<b>\$69,227,540</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$3,077,000	\$3,077,000
	Sediment Removal and Beach Disposal	1,684,880	CY	\$21	\$35,382,480
<b>Subtotal</b>					<b>\$38,459,480</b>
<b>Contingency</b>					<b>\$13,460,800</b>
<b>Total for Option 4</b>					<b>\$51,920,280</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$95,292,840</b>
<b>3 Upland Disposal</b>	<b>\$150,303,420</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$138,559,540</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$121,252,280</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 3 Area B**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$3,290,000</b>
1	Mobilization		1 LS	\$3,290,000	\$3,290,000
<b>Demolition</b>					<b>\$1,400,000</b>
2	Demo culvert, daylight chan	1,400	LF	\$1,000	\$1,400,000
<b>Excavation</b>					<b>\$18,898,650</b>
3	Excavate to Marshplain	1,229,400	CY	\$15	\$18,441,000
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	5,560	CY	\$15	\$83,400
6	Channels Order 4	9,390	CY	\$15	\$140,850
7	Channels Order 3	8,180	CY	\$15	\$122,700
8	Breach	7,380	CY	\$15	\$110,700
<b>Transportation</b>					<b>\$6,262,650</b>
9	Onsite trucking	1,252,530	CY	\$5	\$6,262,650
<b>New Levees</b>					<b>\$4,336,600</b>
10	Levee Fill - no road	81,930	CY	\$10	\$819,300
11	Levee Fill - with road	206,900	CY	\$17	\$3,517,300
<b>Stockpile</b>					<b>\$4,818,500</b>
12	Stockpile	963,700	CY	\$5	\$4,818,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$2,110,000</b>
17	Culvert	1,000	SF	\$2,010	\$2,010,000
18	Tide Gate	1	LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$41,116,400</b>
<b>Contingency</b>					<b>\$14,390,800</b>
<b>Total</b>					<b>\$55,507,200</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization	1	LS	\$880,000	\$880,000
	Sediment Removal	963,700	CY	\$3	\$2,891,100
	Barge Sediment (approx. 30 NM)	963,700	CY	\$4.50	\$4,336,650
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	963,700	CY	\$3	\$2,891,100
<b>Subtotal</b>					<b>\$10,998,850</b>
<b>Contingency</b>					<b>\$3,849,600</b>
<b>Total for Option 1</b>					<b>\$14,848,450</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization	1	LS	\$2,745,000	\$2,745,000
	Sediment Removal	963,700	CY	\$3	\$2,891,100
	Barge Sediment (approx. 30 NM)	963,700	CY	\$4.50	\$4,336,650
	Stockpiling & Staging Material at POLA	963,700	CY	\$1	\$963,700
	Truck Material to Site (100 mi at \$0.20/cy)	963,700	CY	\$20	\$19,274,000
	Placement, grading, compaction at Site	963,700	CY	\$4.25	\$4,095,725
<b>Subtotal</b>					<b>\$34,306,175</b>
<b>Contingency</b>					<b>\$12,007,200</b>
<b>Total for Option 2</b>					<b>\$46,313,375</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal<sup>1</sup>**

	Mobilization	1	LS	\$2,347,000	\$2,347,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	963,700	CY	\$28	\$26,983,600
<b>Subtotal</b>					<b>\$29,330,600</b>
<b>Contingency</b>					<b>\$10,265,800</b>
<b>Total for Option 3</b>					<b>\$39,596,400</b>

**6 Beach Disposal<sup>1</sup>**

	Mobilization	1	LS	\$1,760,000	\$1,760,000
	Sediment Removal and Beach Disposal	963,700	CY	\$21	\$20,237,700
<b>Subtotal</b>					<b>\$21,997,700</b>
<b>Contingency</b>					<b>\$7,699,200</b>
<b>Total for Option 4</b>					<b>\$29,696,900</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$70,355,650</b>
<b>3 Upland Disposal</b>	<b>\$101,820,575</b>
<b>5 Offshore Disposal<sup>1</sup></b>	<b>\$95,103,600</b>
<b>6 Beach Disposal<sup>1</sup></b>	<b>\$85,204,100</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 3 Area C**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$310,000</b>
1	Mobilization		1 LS	\$310,000	\$310,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight ch		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$2,115,000</b>
3	Excavate to Marshplain	141,000	CY	\$15	\$2,115,000
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	0	CY	\$15	\$0
7	Channels Order 3	0	CY	\$15	\$0
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$705,000</b>
9	Onsite trucking	141,000	CY	\$5	\$705,000
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$705,000</b>
12	Stockpile	141,000	CY	\$5	\$705,000
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$3,835,000</b>
<b>Contingency</b>					<b>\$1,342,300</b>
<b>Total</b>					<b>\$5,177,300</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$129,000	\$129,000
	Sediment Removal	141,000	CY	\$3	\$423,000
	Barge Sediment				
	(approx. 30 NM)	141,000	CY	\$4.50	\$634,500
	Unload Dredged Material				
	(hydraulic unloader) or				
	Disposal at CDF	141,000	CY	\$3	\$423,000
<b>Subtotal</b>					<b>\$1,609,500</b>
<b>Contingency</b>					<b>\$563,400</b>
<b>Total for Option 1</b>					<b>\$2,172,900</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$402,000	\$402,000
	Sediment Removal	141,000	CY	\$3	\$423,000
	Barge Sediment				
	(approx. 30 NM)	141,000	CY	\$4.50	\$634,500
	Stockpiling & Staging				
	Material at POLA	141,000	CY	\$1	\$141,000
	Truck Material to Site				
	(100 mi at \$0.20/cy)	141,000	CY	\$20	\$2,820,000
	Placement, grading,				
	compaction at Site	141,000	CY	\$4.25	\$599,250
<b>Subtotal</b>					<b>\$5,019,750</b>
<b>Contingency</b>					<b>\$1,757,000</b>
<b>Total for Option 2</b>					<b>\$6,776,750</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$344,000	\$344,000
	Sediment Removal and				
	Offshore Disposal				
	(approx. 3 mi offshore)	141,000	CY	\$28	\$3,948,000
<b>Subtotal</b>					<b>\$4,292,000</b>
<b>Contingency</b>					<b>\$1,502,200</b>
<b>Total for Option 3</b>					<b>\$5,794,200</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$258,000	\$258,000
	Sediment Removal and				
	Beach Disposal	141,000	CY	\$21	\$2,961,000
<b>Subtotal</b>					<b>\$3,219,000</b>
<b>Contingency</b>					<b>\$1,126,700</b>
<b>Total for Option 4</b>					<b>\$4,345,700</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$7,350,200</b>
<b>3 Upland Disposal</b>	<b>\$11,954,050</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$10,971,500</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$9,523,000</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 4 Area A**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$6,430,000</b>
1	Mobilization		1 LS	\$6,430,000	\$6,430,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$41,226,600</b>
3	Excavate to Marshplain	2,748,440	CY		\$41,220,000
4	New Ballona Creek		0 CY	\$15	\$0
5	Channels Order 5		0 CY	\$15	\$0
6	Channels Order 4		0 CY	\$15	\$0
7	Channels Order 3	440	CY	\$15	\$6,600
8	Breach		0 CY	\$15	\$0
<b>Transportation</b>					<b>\$13,742,200</b>
9	Onsite trucking	2,748,440	CY	\$5	\$13,742,200
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road		0 CY	\$10	\$0
11	Levee Fill - with road		0 CY	\$17	\$0
<b>Stockpile</b>					<b>\$13,742,200</b>
12	Stockpile	2,748,440	CY	\$5	\$13,742,200
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering		0 CY	\$5	\$0
14	Ballona Creek Fill		0 CY	\$5	\$0
15	Salvage Rip Rap		0 CY	\$10	\$0
16	Buried rock protection		0 CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$5,125,000</b>
17	Culvert	2,500	SF	\$2,010	\$5,025,000
18	Tide Gate		1 LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$80,266,000</b>
<b>Contingency</b>					<b>\$28,093,100</b>
<b>Total</b>					<b>\$108,359,100</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$2,510,000	\$2,510,000
	Sediment Removal	2,748,440	CY	\$3	\$8,245,320
	Barge Sediment (approx. 30 NM)	2,748,440	CY	\$4.50	\$12,367,980
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	2,748,440	CY	\$3	\$8,245,320
<b>Subtotal</b>					<b>\$31,368,620</b>
<b>Contingency</b>					<b>\$10,979,100</b>
<b>Total for Option 1</b>					<b>\$42,347,720</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$7,828,000	\$7,828,000
	Sediment Removal	2,748,440	CY	\$3	\$8,245,320
	Barge Sediment (approx. 30 NM)	2,748,440	CY	\$4.50	\$12,367,980
	Stockpiling & Staging Material at POLA	2,748,440	CY	\$1	\$2,748,440
	Truck Material to Site (100 mi at \$0.20/cy)	2,748,440	CY	\$20	\$54,968,800
	Placement, grading, compaction at Site	2,748,440	CY	\$4.25	\$11,680,870
<b>Subtotal</b>					<b>\$97,839,410</b>
<b>Contingency</b>					<b>\$34,243,800</b>
<b>Total for Option 2</b>					<b>\$132,083,210</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$6,692,000	\$6,692,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	2,748,440	CY	\$28	\$76,956,320
<b>Subtotal</b>					<b>\$83,648,320</b>
<b>Contingency</b>					<b>\$29,277,000</b>
<b>Total for Option 3</b>					<b>\$112,925,320</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$5,019,000	\$5,019,000
	Sediment Removal and Beach Disposal	2,748,440	CY	\$21	\$57,717,240
<b>Subtotal</b>					<b>\$62,736,240</b>
<b>Contingency</b>					<b>\$21,957,700</b>
<b>Total for Option 4</b>					<b>\$84,693,940</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$150,706,820</b>
<b>3 Upland Disposal</b>	<b>\$240,442,310</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$221,284,420</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$193,053,040</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 4 Area B**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$3,290,000</b>
1	Mobilization		1 LS	\$3,290,000	\$3,290,000
<b>Demolition</b>					<b>\$1,400,000</b>
2	Demo culvert, daylight chan	1,400	LF	\$1,000	\$1,400,000
<b>Excavation</b>					<b>\$18,898,650</b>
3	Excavate to Marshplain	1,229,400	CY	\$15	\$18,441,000
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	5,560	CY	\$15	\$83,400
6	Channels Order 4	9,390	CY	\$15	\$140,850
7	Channels Order 3	8,180	CY	\$15	\$122,700
8	Breach	7,380	CY	\$15	\$110,700
<b>Transportation</b>					<b>\$6,262,650</b>
9	Onsite trucking	1,252,530	CY	\$5	\$6,262,650
<b>New Levees</b>					<b>\$4,336,600</b>
10	Levee Fill - no road	81,930	CY	\$10	\$819,300
11	Levee Fill - with road	206,900	CY	\$17	\$3,517,300
<b>Stockpile</b>					<b>\$4,818,500</b>
12	Stockpile	963,700	CY	\$5	\$4,818,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$2,110,000</b>
17	Culvert	1,000	SF	\$2,010	\$2,010,000
18	Tide Gate	1	LS	\$100,000	\$100,000
<b>Subtotal</b>					<b>\$41,116,400</b>
<b>Contingency</b>					<b>\$14,390,800</b>
<b>Total</b>					<b>\$55,507,200</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization	1	LS	\$880,000	\$880,000
	Sediment Removal	963,700	CY	\$3	\$2,891,100
	Barge Sediment (approx. 30 NM)	963,700	CY	\$4.50	\$4,336,650
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	963,700	CY	\$3	\$2,891,100
<b>Subtotal</b>					<b>\$10,998,850</b>
<b>Contingency</b>					<b>\$3,849,600</b>
<b>Total for Option 1</b>					<b>\$14,848,450</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization	1	LS	\$2,745,000	\$2,745,000
	Sediment Removal	963,700	CY	\$3	\$2,891,100
	Barge Sediment (approx. 30 NM)	963,700	CY	\$4.50	\$4,336,650
	Stockpiling & Staging Material at POLA	963,700	CY	\$1	\$963,700
	Truck Material to Site (100 mi at \$0.20/cy)	963,700	CY	\$20	\$19,274,000
	Placement, grading, compaction at Site	963,700	CY	\$4.25	\$4,095,725
<b>Subtotal</b>					<b>\$34,306,175</b>
<b>Contingency</b>					<b>\$12,007,200</b>
<b>Total for Option 2</b>					<b>\$46,313,375</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization	1	LS	\$2,347,000	\$2,347,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	963,700	CY	\$28	\$26,983,600
<b>Subtotal</b>					<b>\$29,330,600</b>
<b>Contingency</b>					<b>\$10,265,800</b>
<b>Total for Option 3</b>					<b>\$39,596,400</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization	1	LS	\$1,760,000	\$1,760,000
	Sediment Removal and Beach Disposal	963,700	CY	\$21	\$20,237,700
<b>Subtotal</b>					<b>\$21,997,700</b>
<b>Contingency</b>					<b>\$7,699,200</b>
<b>Total for Option 4</b>					<b>\$29,696,900</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$70,355,650</b>
<b>3 Upland Disposal</b>	<b>\$101,820,575</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$95,103,600</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$85,204,100</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 4 Area C**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$310,000</b>
1	Mobilization		1 LS	\$310,000	\$310,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight cl		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$2,115,000</b>
3	Excavate to Marshplain	141,000	CY	\$15	\$2,115,000
4	New Ballona Creek	0	CY	\$15	\$0
5	Channels Order 5	0	CY	\$15	\$0
6	Channels Order 4	0	CY	\$15	\$0
7	Channels Order 3	0	CY	\$15	\$0
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$705,000</b>
9	Onsite trucking	141,000	CY	\$5	\$705,000
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$705,000</b>
12	Stockpile	141,000	CY	\$5	\$705,000
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$0</b>
13	Levee Lowering	0	CY	\$5	\$0
14	Ballona Creek Fill	0	CY	\$5	\$0
15	Salvage Rip Rap	0	CY	\$10	\$0
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$3,835,000</b>
<b>Contingency</b>					<b>\$1,342,300</b>
<b>Total</b>					<b>\$5,177,300</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$129,000	\$129,000
	Sediment Removal	141,000	CY	\$3	\$423,000
	Barge Sediment (approx. 30 NM)	141,000	CY	\$4.50	\$634,500
	Material (hydraulic unloader) or Disposal at CDF	141,000	CY	\$3	\$423,000
<b>Subtotal</b>					<b>\$1,609,500</b>
<b>Contingency</b>					<b>\$563,400</b>
<b>Total for Option 1</b>					<b>\$2,172,900</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$402,000	\$402,000
	Sediment Removal	141,000	CY	\$3	\$423,000
	Barge Sediment (approx. 30 NM)	141,000	CY	\$4.50	\$634,500
	Stockpiling & Staging Material at POLA	141,000	CY	\$1	\$141,000
	Truck Material to Site (100 mi at \$0.20/cy)	141,000	CY	\$20	\$2,820,000
	Placement, grading, compaction at Site	141,000	CY	\$4.25	\$599,250
<b>Subtotal</b>					<b>\$5,019,750</b>
<b>Contingency</b>					<b>\$1,757,000</b>
<b>Total for Option 2</b>					<b>\$6,776,750</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$344,000	\$344,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	141,000	CY	\$28	\$3,948,000
<b>Subtotal</b>					<b>\$4,292,000</b>
<b>Contingency</b>					<b>\$1,502,200</b>
<b>Total for Option 3</b>					<b>\$5,794,200</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$258,000	\$258,000
	Sediment Removal and Beach Disposal	141,000	CY	\$21	\$2,961,000
<b>Subtotal</b>					<b>\$3,219,000</b>
<b>Contingency</b>					<b>\$1,126,700</b>
<b>Total for Option 4</b>					<b>\$4,345,700</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$7,350,200</b>
<b>3 Upland Disposal</b>	<b>\$11,954,050</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$10,971,500</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$9,523,000</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Area A**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$5,920,000</b>
1	Mobilization		1 LS	\$5,920,000	\$5,920,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$40,111,500</b>
3	Excavate to Marshplain	2,649,400	CY	\$15	\$39,741,000
4	New Ballona Creek	16,500	CY	\$15	\$247,500
5	Channels Order 5	1,200	CY	\$15	\$18,000
6	Channels Order 4	3,300	CY	\$15	\$49,500
7	Channels Order 3	3,700	CY	\$15	\$55,500
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$13,370,500</b>
9	Onsite trucking	2,674,100	CY	\$5	\$13,370,500
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road		0 CY	\$10	\$0
11	Levee Fill - with road		0 CY	\$17	\$0
<b>Stockpile</b>					<b>\$13,328,500</b>
12	Stockpile	2,665,700	CY	\$5	\$13,328,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$1,189,400</b>
13	Levee Lowering	85,700	CY	\$5	\$428,500
14	Ballona Creek Fill	94,100	CY	\$5	\$470,500
15	Salvage Rip Rap	14,520	CY	\$10	\$145,200
16	Buried rock protection	7,260	CY	\$20	\$145,200
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert		0 SF	\$2,010	\$0
18	Tide Gate		0 LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$73,919,900</b>
<b>Contingency</b>					<b>\$25,872,000</b>
<b>Total</b>					<b>\$99,791,900</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$2,434,000	\$2,434,000
	Sediment Removal	2,665,700	CY	\$3	\$7,997,100
	Barge Sediment (approx. 30 NM)	2,665,700	CY	\$4.50	\$11,995,650
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	2,665,700	CY	\$3	\$7,997,100
<b>Subtotal</b>					<b>\$30,423,850</b>
<b>Contingency</b>					<b>\$10,648,400</b>
<b>Total for Option 1</b>					<b>\$41,072,250</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$7,592,000	\$7,592,000
	Sediment Removal	2,665,700	CY	\$3	\$7,997,100
	Barge Sediment (approx. 30 NM)	2,665,700	CY	\$4.50	\$11,995,650
	Stockpiling & Staging Material at POLA	2,665,700	CY	\$1	\$2,665,700
	Truck Material to Site (100 mi at \$0.20/cy)	2,665,700	CY	\$20	\$53,314,000
	Placement, grading, compaction at Site	2,665,700	CY	\$4.25	\$11,329,225
<b>Subtotal</b>					<b>\$94,893,675</b>
<b>Contingency</b>					<b>\$33,212,800</b>
<b>Total for Option 2</b>					<b>\$128,106,475</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$6,491,000	\$6,491,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	2,665,700	CY	\$28	\$74,639,600
<b>Subtotal</b>					<b>\$81,130,600</b>
<b>Contingency</b>					<b>\$28,395,800</b>
<b>Total for Option 3</b>					<b>\$109,526,400</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$4,868,000	\$4,868,000
	Sediment Removal and Beach Disposal	2,665,700	CY	\$21	\$55,979,700
<b>Subtotal</b>					<b>\$60,847,700</b>
<b>Contingency</b>					<b>\$21,296,700</b>
<b>Total for Option 4</b>					<b>\$82,144,400</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$140,864,150</b>
<b>3 Upland Disposal</b>	<b>\$227,898,375</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$209,318,300</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$181,936,300</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Area B**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$3,500,000</b>
1	Mobilization		1 LS	\$3,500,000	\$3,500,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$21,600,000</b>
3	Excavate to Marshplain	1,398,600	CY	\$15	\$20,979,000
4	New Ballona Creek	27,700	CY	\$15	\$415,500
5	Channels Order 5	2,000	CY	\$15	\$30,000
6	Channels Order 4	5,500	CY	\$15	\$82,500
7	Channels Order 3	6,200	CY	\$15	\$93,000
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$7,200,000</b>
9	Onsite trucking	1,440,000	CY	\$5	\$7,200,000
<b>New Levees</b>					<b>\$3,558,100</b>
10	Levee Fill - no road		0 CY	\$10	\$0
11	Levee Fill - with road	209,300	CY	\$17	\$3,558,100
<b>Stockpile</b>					<b>\$6,090,500</b>
12	Stockpile	1,218,100	CY	\$5	\$6,090,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$1,783,600</b>
13	Levee Lowering	128,500	CY	\$5	\$642,500
14	Ballona Creek Fill	141,100	CY	\$5	\$705,500
15	Salvage Rip Rap	21,780	CY	\$10	\$217,800
16	Buried rock protection	10,890	CY	\$20	\$217,800
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert		0 SF	\$2,010	\$0
18	Tide Gate		0 LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$43,732,200</b>
<b>Contingency</b>					<b>\$15,306,300</b>
<b>Total</b>					<b>\$59,038,500</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$1,113,000	\$1,113,000
	Sediment Removal	1,218,100	CY	\$3	\$3,654,300
	Barge Sediment (approx. 30 NM)	1,218,100	CY	\$4.50	\$5,481,450
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	1,218,100	CY	\$3	\$3,654,300
<b>Subtotal</b>					<b>\$13,903,050</b>
<b>Contingency</b>					<b>\$4,866,100</b>
<b>Total for Option 1</b>					<b>\$18,769,150</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$3,469,000	\$3,469,000
	Sediment Removal	1,218,100	CY	\$3	\$3,654,300
	Barge Sediment (approx. 30 NM)	1,218,100	CY	\$4.50	\$5,481,450
	Stockpiling & Staging Material at POLA	1,218,100	CY	\$1	\$1,218,100
	Truck Material to Site (100 mi at \$0.20/cy)	1,218,100	CY	\$20	\$24,362,000
	Placement, grading, compaction at Site	1,218,100	CY	\$4.25	\$5,176,925
<b>Subtotal</b>					<b>\$43,361,775</b>
<b>Contingency</b>					<b>\$15,176,700</b>
<b>Total for Option 2</b>					<b>\$58,538,475</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$2,966,000	\$2,966,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	1,218,100	CY	\$28	\$34,106,800
<b>Subtotal</b>					<b>\$37,072,800</b>
<b>Contingency</b>					<b>\$12,975,500</b>
<b>Total for Option 3</b>					<b>\$50,048,300</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$2,225,000	\$2,225,000
	Sediment Removal and Beach Disposal	1,218,100	CY	\$21	\$25,580,100
<b>Subtotal</b>					<b>\$27,805,100</b>
<b>Contingency</b>					<b>\$9,731,800</b>
<b>Total for Option 4</b>					<b>\$37,536,900</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$77,807,650</b>
<b>3 Upland Disposal</b>	<b>\$117,576,975</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$109,086,800</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$96,575,400</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Area C**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$2,990,000</b>
1	Mobilization		1 LS	\$2,990,000	\$2,990,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$20,280,000</b>
3	Excavate to Marshplain	1,324,700	CY	\$15	\$19,870,500
4	New Ballona Creek	21,800	CY	\$15	\$327,000
5	Channels Order 5	800	CY	\$15	\$12,000
6	Channels Order 4	2,200	CY	\$15	\$33,000
7	Channels Order 3	2,500	CY	\$15	\$37,500
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$6,760,000</b>
9	Onsite trucking	1,352,000	CY	\$5	\$6,760,000
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road		0 CY	\$10	\$0
11	Levee Fill - with road		0 CY	\$17	\$0
<b>Stockpile</b>					<b>\$6,739,000</b>
12	Stockpile	1,347,800	CY	\$5	\$6,739,000
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$595,200</b>
13	Levee Lowering	42,900	CY	\$5	\$214,500
14	Ballona Creek Fill	47,100	CY	\$5	\$235,500
15	Salvage Rip Rap	7,260	CY	\$10	\$72,600
16	Buried rock protection	3,630	CY	\$20	\$72,600
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert		0 SF	\$2,010	\$0
18	Tide Gate		0 LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$37,364,200</b>
<b>Contingency</b>					<b>\$13,077,500</b>
<b>Total</b>					<b>\$50,441,700</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$1,231,000	\$1,231,000
	Sediment Removal	1,347,800	CY	\$3	\$4,043,400
	Barge Sediment (approx. 30 NM)	1,347,800	CY	\$4.50	\$6,065,100
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	1,347,800	CY	\$3	\$4,043,400
<b>Subtotal</b>					<b>\$15,382,900</b>
<b>Contingency</b>					<b>\$5,384,100</b>
<b>Total for Option 1</b>					<b>\$20,767,000</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$3,839,000	\$3,839,000
	Sediment Removal	1,347,800	CY	\$3	\$4,043,400
	Barge Sediment (approx. 30 NM)	1,347,800	CY	\$4.50	\$6,065,100
	Stockpiling & Staging Material at POLA	1,347,800	CY	\$1	\$1,347,800
	Truck Material to Site (100 mi at \$0.20/cy)	1,347,800	CY	\$20	\$26,956,000
	Placement, grading, compaction at Site	1,347,800	CY	\$4.25	\$5,728,150
<b>Subtotal</b>					<b>\$47,979,450</b>
<b>Contingency</b>					<b>\$16,792,900</b>
<b>Total for Option 2</b>					<b>\$64,772,350</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$3,282,000	\$3,282,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	1,347,800	CY	\$28	\$37,738,400
<b>Subtotal</b>					<b>\$41,020,400</b>
<b>Contingency</b>					<b>\$14,357,200</b>
<b>Total for Option 3</b>					<b>\$55,377,600</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$2,462,000	\$2,462,000
	Sediment Removal and Beach Disposal	1,347,800	CY	\$21	\$28,303,800
<b>Subtotal</b>					<b>\$30,765,800</b>
<b>Contingency</b>					<b>\$10,768,000</b>
<b>Total for Option 4</b>					<b>\$41,533,800</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$71,208,700</b>
<b>3 Upland Disposal</b>	<b>\$115,214,050</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$105,819,300</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$91,975,500</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Phase 1**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$6,550,000</b>
1	Mobilization		1 LS	\$6,550,000	\$6,550,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$43,864,500</b>
3	Excavate to Marshplain	2,882,500	CY	\$15	\$43,237,500
4	New Ballona Creek	31,400	CY	\$15	\$471,000
5	Channels Order 5	1,500	CY	\$15	\$22,500
6	Channels Order 4	4,200	CY	\$15	\$63,000
7	Channels Order 3	4,700	CY	\$15	\$70,500
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$14,621,500</b>
9	Onsite trucking	2,924,300	CY	\$5	\$14,621,500
<b>New Levees</b>					<b>\$492,400</b>
10	Levee Fill - no road	49,240	CY	\$10	\$492,400
11	Levee Fill - with road	0	CY	\$17	\$0
<b>Stockpile</b>					<b>\$14,449,800</b>
12	Stockpile	2,889,960	CY	\$5	\$14,449,800
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$1,828,500</b>
13	Levee Lowering	163,100	CY	\$5	\$815,500
14	Ballona Creek Fill	148,200	CY	\$5	\$741,000
15	Salvage Rip Rap	27,200	CY	\$10	\$272,000
16	Buried rock protection	0	CY	\$20	\$0
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert		0 SF	\$2,010	\$0
18	Tide Gate		0 LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$81,806,700</b>
<b>Contingency</b>					<b>\$28,632,400</b>
<b>Total</b>					<b>\$110,439,100</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$2,639,000	\$2,639,000
	Sediment Removal	2,889,960	CY	\$3	\$8,669,880
	Barge Sediment (approx. 30 NM)	2,889,960	CY	\$4.50	\$13,004,820
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	2,889,960	CY	\$3	\$8,669,880
<b>Subtotal</b>					<b>\$32,983,580</b>
<b>Contingency</b>					<b>\$11,544,300</b>
<b>Total for Option 1</b>					<b>\$44,527,880</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$8,231,000	\$8,231,000
	Sediment Removal	2,889,960	CY	\$3	\$8,669,880
	Barge Sediment (approx. 30 NM)	2,889,960	CY	\$4.50	\$13,004,820
	Stockpiling & Staging Material at POLA	2,889,960	CY	\$1	\$2,889,960
	Truck Material to Site (100 mi at \$0.20/cy)	2,889,960	CY	\$20	\$57,799,200
	Placement, grading, compaction at Site	2,889,960	CY	\$4.25	\$12,282,330
<b>Subtotal</b>					<b>\$102,877,190</b>
<b>Contingency</b>					<b>\$36,007,100</b>
<b>Total for Option 2</b>					<b>\$138,884,290</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$7,037,000	\$7,037,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	2,889,960	CY	\$28	\$80,918,880
<b>Subtotal</b>					<b>\$87,955,880</b>
<b>Contingency</b>					<b>\$30,784,600</b>
<b>Total for Option 3</b>					<b>\$118,740,480</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$5,278,000	\$5,278,000
	Sediment Removal and Beach Disposal	2,889,960	CY	\$21	\$60,689,160
<b>Subtotal</b>					<b>\$65,967,160</b>
<b>Contingency</b>					<b>\$23,088,500</b>
<b>Total for Option 4</b>					<b>\$89,055,660</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$154,966,980</b>
<b>3 Upland Disposal</b>	<b>\$249,323,390</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$229,179,580</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$199,494,760</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Phase 2**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$2,900,000</b>
1	Mobilization		1 LS	\$2,900,000	\$2,900,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$17,887,500</b>
3	Excavate to Marshplain	1,165,500	CY	\$15	\$17,482,500
4	New Ballona Creek	15,500	CY	\$15	\$232,500
5	Channels Order 5	1,700	CY	\$15	\$25,500
6	Channels Order 4	4,600	CY	\$15	\$69,000
7	Channels Order 3	5,200	CY	\$15	\$78,000
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$5,962,500</b>
9	Onsite trucking	1,192,500	CY	\$5	\$5,962,500
<b>New Levees</b>					<b>\$3,558,100</b>
10	Levee Fill - no road	0	CY	\$10	\$0
11	Levee Fill - with road	209,300	CY	\$17	\$3,558,100
<b>Stockpile</b>					<b>\$4,617,500</b>
12	Stockpile	923,500	CY	\$5	\$4,617,500
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$1,253,500</b>
13	Levee Lowering	51,000	CY	\$5	\$255,000
14	Ballona Creek Fill	110,700	CY	\$5	\$553,500
15	Salvage Rip Rap	8,200	CY	\$10	\$82,000
16	Buried rock protection	18,150	CY	\$20	\$363,000
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert	0	SF	\$2,010	\$0
18	Tide Gate	0	LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$36,179,100</b>
<b>Contingency</b>					<b>\$12,662,700</b>
<b>Total</b>					<b>\$48,841,800</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$844,000	\$844,000
	Sediment Removal	923,500	CY	\$3	\$2,770,500
	Barge Sediment (approx. 30 NM)	923,500	CY	\$4.50	\$4,155,750
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	923,500	CY	\$3	\$2,770,500
<b>Subtotal</b>					<b>\$10,540,750</b>
<b>Contingency</b>					<b>\$3,689,300</b>
<b>Total for Option 1</b>					<b>\$14,230,050</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$2,630,000	\$2,630,000
	Sediment Removal	923,500	CY	\$3	\$2,770,500
	Barge Sediment (approx. 30 NM)	923,500	CY	\$4.50	\$4,155,750
	Stockpiling & Staging Material at POLA	923,500	CY	\$1	\$923,500
	Truck Material to Site (100 mi at \$0.20/cy)	923,500	CY	\$20	\$18,470,000
	Placement, grading, compaction at Site	923,500	CY	\$4.25	\$3,924,880
<b>Subtotal</b>					<b>\$32,874,630</b>
<b>Contingency</b>					<b>\$11,506,200</b>
<b>Total for Option 2</b>					<b>\$44,380,830</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$2,249,000	\$2,249,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	923,500	CY	\$28	\$25,858,000
<b>Subtotal</b>					<b>\$28,107,000</b>
<b>Contingency</b>					<b>\$9,837,500</b>
<b>Total for Option 3</b>					<b>\$37,944,500</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$1,687,000	\$1,687,000
	Sediment Removal and Beach Disposal	923,500	CY	\$21	\$19,393,500
<b>Subtotal</b>					<b>\$21,080,500</b>
<b>Contingency</b>					<b>\$7,378,200</b>
<b>Total for Option 4</b>					<b>\$28,458,700</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$63,071,850</b>
<b>3 Upland Disposal</b>	<b>\$93,222,630</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$86,786,300</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$77,300,500</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)

**Alternative 5 Phase 3**

Item	Description	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization</b>					<b>\$2,990,000</b>
1	Mobilization		1 LS	\$2,990,000	\$2,990,000
<b>Demolition</b>					<b>\$0</b>
2	Demo culvert, daylight chan		0 LF	\$1,000	\$0
<b>Excavation</b>					<b>\$20,280,000</b>
3	Excavate to Marshplain	1,324,700	CY	\$15	\$19,870,500
4	New Ballona Creek	21,800	CY	\$15	\$327,000
5	Channels Order 5	800	CY	\$15	\$12,000
6	Channels Order 4	2,200	CY	\$15	\$33,000
7	Channels Order 3	2,500	CY	\$15	\$37,500
8	Breach	0	CY	\$15	\$0
<b>Transportation</b>					<b>\$6,760,000</b>
9	Onsite trucking	1,352,000	CY	\$5	\$6,760,000
<b>New Levees</b>					<b>\$0</b>
10	Levee Fill - no road		0 CY	\$10	\$0
11	Levee Fill - with road		0 CY	\$17	\$0
<b>Stockpile</b>					<b>\$6,723,000</b>
12	Stockpile	1,344,600	CY	\$5	\$6,723,000
<b>Levee Lowering and Ballona Creek Fill</b>					<b>\$620,200</b>
13	Levee Lowering	42,900	CY	\$5	\$214,500
14	Ballona Creek Fill	50,300	CY	\$5	\$251,500
15	Salvage Rip Rap	8,160	CY	\$10	\$81,600
16	Buried rock protection	3,630	CY	\$20	\$72,600
<b>Water Control Structures</b>					<b>\$0</b>
17	Culvert		0 SF	\$2,010	\$0
18	Tide Gate		0 LS	\$100,000	\$0
<b>Subtotal</b>					<b>\$37,373,200</b>
<b>Contingency</b>					<b>\$13,080,700</b>
<b>Total</b>					<b>\$50,453,900</b>

**Disposal Options - Cost Estimates from POLA / Weston and SCC**

<b>1 / 2 Unload Dredged Material at POLA / Disposal at CDF at POLA</b>					
	Mobilization		1 LS	\$1,228,000	\$1,228,000
	Sediment Removal	1,344,600	CY	\$3	\$4,033,800
	Barge Sediment (approx. 30 NM)	1,344,600	CY	\$4.50	\$6,050,700
	Unload Dredged Material (hydraulic unloader) or Disposal at CDF	1,344,600	CY	\$3	\$4,033,800
<b>Subtotal</b>					<b>\$15,346,300</b>
<b>Contingency</b>					<b>\$5,371,300</b>
<b>Total for Option 1</b>					<b>\$20,717,600</b>

**3 Beneficial Use - Landfill Cover**

	Mobilization		1 LS	\$3,830,000	\$3,830,000
	Sediment Removal	1,344,600	CY	\$3	\$4,033,800
	Barge Sediment (approx. 30 NM)	1,344,600	CY	\$4.50	\$6,050,700
	Stockpiling & Staging Material at POLA	1,344,600	CY	\$1	\$1,344,600
	Truck Material to Site (100 mi at \$0.20/cy)	1,344,600	CY	\$20	\$26,892,000
	Placement, grading, compaction at Site	1,344,600	CY	\$4.25	\$5,714,550
<b>Subtotal</b>					<b>\$47,865,650</b>
<b>Contingency</b>					<b>\$16,753,000</b>
<b>Total for Option 2</b>					<b>\$64,618,650</b>

**4 Disposal at Hazardous Waste Landfill - estimate not included, contaminant report pending**

**5 Offshore Disposal <sup>1</sup>**

	Mobilization		1 LS	\$3,274,000	\$3,274,000
	Sediment Removal and Offshore Disposal (approx. 3 mi offshore)	1,344,600	CY	\$28	\$37,648,800
<b>Subtotal</b>					<b>\$40,922,800</b>
<b>Contingency</b>					<b>\$14,323,000</b>
<b>Total for Option 3</b>					<b>\$55,245,800</b>

**6 Beach Disposal <sup>1</sup>**

	Mobilization		1 LS	\$2,456,000	\$2,456,000
	Sediment Removal and Beach Disposal	1,344,600	CY	\$21	\$28,236,600
<b>Subtotal</b>					<b>\$30,692,600</b>
<b>Contingency</b>					<b>\$10,742,400</b>
<b>Total for Option 4</b>					<b>\$41,435,000</b>

**Grand Totals with Disposal Options**

<b>1 / 2 Disposal at POLA</b>	<b>\$71,171,500</b>
<b>3 Upland Disposal</b>	<b>\$115,072,550</b>
<b>5 Offshore Disposal <sup>1</sup></b>	<b>\$105,699,700</b>
<b>6 Beach Disposal <sup>1</sup></b>	<b>\$91,888,900</b>

**Notes**

1 - For Options 5 and 6, costs may range from the cost for Option 1 / 2 (lower end) up to the costs listed for Options 5 and 6 (upper end)