

Table 10-2 - Preliminary Engineer's Cost Estimate for Waterway Remediation (Upland Disposal)

TASK	QUANTITY	UNIT	UNIT COST		COST
<b>1.0 THEA FOSS AND WHEELER-OSGOOD WATERWAY DREDGING (EXCLUDING RA 23 AND RA 24)</b>					
<b>1.1 Pre-Construction and Site Preparation</b>					
1.1.1 Contractor Submittals (Remedial Action Work Plan elements)	1	LS	\$	75,000	\$ 75,000
1.1.2 Mobilization/Demobilization (1)	1	EA	\$	650,000	\$ 650,000
1.1.3 Site Preparation					
Construct Temporary Staging Facilities	1	LS	\$	100,000	\$ 100,000
<b>1.2 Dredging (2)</b>					
1.2.1 Channel Dredging	427,120	CY	\$	5.75	\$ 2,456,000
1.2.2 Slope Dredging	85,480	CY	\$	6.25	\$ 534,300
<b>1.3 Disposal Handling and Disposal Fees (for Upland Disposal Options only)</b>					
	512,600	CY	\$	30	\$ 15,378,000
<b>2.0 THEA FOSS AND WHEELER-OSGOOD WATERWAY CAPPING (EXCLUDING RAs 23 AND 24)</b>					
<b>2.1 - RA 1 through RA 22 Capping - Channel Areas</b>					
Purchase, Transport, and Place Channel Capping Materials					
Sand	134,408	TON	\$	12.30	\$ 1,653,300
<b>2.2 - RA 1 through RA 22 Capping - Slope Areas</b>					
Purchase, Transport, and Place Slope Capping Materials					
Filter Material - Sand/Gravel	32,996	TON	\$	13.00	\$ 429,000
Quarry Spalls	3,793	TON	\$	18.00	\$ 68,300
Light Riprap	33,095	TON	\$	26	\$ 860,500
Habitat Mix	4,897	TON	\$	13.00	\$ 63,700
<b>3.0 REMEDIAL ACTION FOR RA 23 AND RA 24</b>			Work to be Performed by Others under a Separate Contract		
<b>4.0 ST. PAUL WATERWAY CONSTRUCTION</b>					
<b>4.1 Pre-Construction and Site Preparation</b>					
4.1.1 Mobilization/Demobilization (1)					
		LS	\$	-	\$ -
4.1.2 Site Preparation					
Construct Temporary Staging Facilities	1	LS	\$	100,000	\$ 100,000
Remove and Dispose of Timber Piles	50	EA	\$	200	\$ 10,000
Demolition of Existing Buildings, Foundations, and Utilities	1	LS	\$	190,000	\$ 190,000
Construct New Log Transfer Road	1	LS	\$	491,000	\$ 491,000
Construction Sediment Transloading Facility	1	LS	\$	2,000,000	\$ 2,000,000
<b>5.0 SLOPE PROTECTION AND HABITAT MITIGATION CONSTRUCTION IN ST. PAUL AND MIDDLE WATERWAYS</b>					
<b>5.1 Slope Protection and Habitat Components</b>					
5.1.1 Mobilization/Demobilization (1)					
	-	LS	\$	-	\$ -
5.1.2 Pre-Construction and Site Preparation					
Remove and Dispose of Piles	800	EA	\$	200	\$ 160,000
5.1.3 Slope Protection and Habitat Enhancement					
	1	LS	\$	120,000	\$ 120,000
<b>6.0 RELATED CONSTRUCTION IN THE THEA FOSS/WHEELER-OSGOOD WATERWAYS</b>					
<b>6.1 Remove and Replace Marinas</b>					
6.1.1 Construct Temporary Marina Facility	50	Slip	\$	6,000	\$ 300,000
6.1.2 Remove and Replace Marinas	200	Slip	\$	1,000	\$ 200,000
6.1.3 Replace Floats (4)	1,000	SF	\$	45	\$ 45,000
<b>6.2 Remove and Dispose of Debris</b>					
	1	LS	\$	50,000	\$ 50,000
<b>6.3 Remove and Replace Piling</b>					
	50	EA	\$	2,500	\$ 125,000
<b>6.4 Remove and Replace Outfalls</b>					
	10	EA	\$	10,000	\$ 100,000
<b>6.5 Miscellaneous Demolition and Slope Work</b>					
	1	EA	\$	200,000	\$ 200,000
<b>6.6 Sheet Pile Bulkheads in Thea Foss Waterway</b>					
	300	LF	\$	1,675	\$ 502,500
SUBTOTAL					\$ 26,861,600
<b>7.0 INDIRECT COSTS</b>					
<b>7.1 Contractor Overhead and Profit (22)</b>					
	-	PERC	\$	-	\$ -
<b>7.2 Construction Monitoring</b>					
7.2.1 Construction Management and Observation (11)					
	95	WKLY	\$	23,120	\$ 2,196,400
7.2.2 Bathymetric Surveys					
Pre-Dredge/Cap Waterway					
	1	EA	\$	30,000	\$ 30,000
Progress Waterway (12)					
	4	EA	\$	16,000	\$ 64,000
Post-Dredge/Cap Waterway					
	1	EA	\$	30,000	\$ 30,000

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TASK	QUANTITY	UNIT	UNIT COST	COST
<b>7.2.3 Water Quality Monitoring</b>				
Baseline	1	EA	\$ 25,000	\$ 25,000
Intensive (14)	30	EA	\$ 6,200	\$ 186,000
Routine (15)	50	WKLY	\$ 14,000	\$ 700,000
Limited (16)	30	WKLY	\$ 2,500	\$ 75,000
<b>7.2.4 Verification Sampling and Analysis during Construction</b>				
Post-Dredge and Cap for RA 1 through RA 22 (17)	1	LS	\$ 89,000	\$ 89,000
<b>7.2.5 Settlement Monitoring</b>				
Thea Foss Structures	1	LS	\$ 61,500	\$ 61,500
SUBTOTAL				\$ 30,318,500
<b>8.0 CONSTRUCTION CONTINGENCY (26)</b>				
	10%	PERC	SUBTOTAL	\$ 3,031,850
TOTAL CONSTRUCTION COST				\$ 33,350,350
<b>9.0 ADDITIONAL PROJECT COMPONENTS</b>				
<b>9.1 Design Engineering (29)</b>		LS	\$ -	\$ -
<b>9.2 Long-Term Monitoring</b>				
9.2.1 Thea Foss Waterway Monitoring (30)	1	LS	\$ 563,586	\$ 563,600
9.2.2 Habitat Monitoring (10)	1	LS	TBD	TBD
<b>9.3 Habitat Mitigation</b>		1	LS	TBD
<b>TOTAL ESTIMATED COST (2002 dollars):</b>				<b>\$ 33,914,000</b>

NOTES: See Table 10-1 for clarification