

Appendix M:

Rough Order of Magnitude Estimate



ROUGH ORDER OF MAGNITUDE ESTIMATE
OVERALL SUMMARY

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
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CONSTRUCTION COSTS

1	3.2 FIRE PROTECTION	LS	LUMP SUM	756,461.00	756,461
2	3.3 PUBLIC SAFETY	LS	LUMP SUM	7,500.00	7,500
3	3.4 HABITAT MAINTENANCE	LS	LUMP SUM	101,500.00	101,500
4	3.5 FLOOD PROTECTION	LS	LUMP SUM	800,140.00	800,140
5	3.6 TRAIL DEVELOPMENT	LS	LUMP SUM	361,846.10	361,847
6	3.7 RIVER ACCESS	LS	LUMP SUM	125,271.00	125,271
7	3.10 AMENITIES	LS	LUMP SUM	117,550.00	117,550
8	3.12 SIGNAGE	LS	LUMP SUM	32,500.00	32,500
9	3.13 EDUCATION	LS	LUMP SUM	12,625.00	12,625
10	3.14 ENCROACHMENTS/TRESPASSING	LS	LUMP SUM	88,471.00	88,471
SUBTOTAL					\$2,403,865

PROGRAMMING COSTS

11	3.8 OPERATING HOURS AND DAYS PILOT PROGRAM	LS	LUMP SUM	16,626.00	16,626
12	3.9 MOTORIZED VEHICLES	LS	LUMP SUM	0.00	0
13	3.11 ACTIVITIES	LS	LUMP SUM	0.00	0
SUBTOTAL					\$16,626

GRAND TOTAL (CONSTRUCTION)					\$2,420,491
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ADDITIVE ALTERNATE

14	3.8 OPERATING HOURS AND DAYS OPEN AND STAFFED EVERY DAY FOR A YEAR	LS	LUMP SUM	173,501.00	173,501
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ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
RECURRING COSTS (ANNUAL)					
15	3.1 STAFFING	LS	LUMP SUM	173,501.00	173,501
16	ACCESSIBLE RESTROOM (ONCE-A-WEEK SERVICING & RENTAL)	LS	LUMP SUM	1,620.00	1,620
SUBTOTAL					\$175,121

EXCLUSIONS:

- 1 CITY PLAN CHECK AND INSPECTION
- 2 UTILITY CONNECTION FEES
- 3 STORM WATER PREVENTION PLAN PREPARATION

NOTES:

- 1 ESTIMATES ARE BASED ON SURVEY PROVIDED BY SAN JOAQUIN COUNTY PARKS AND RECREATION. ADDITIONAL SURVEYING AND FIELD VERIFICATION REQUIRED TO VERIFY QUANTITIES.
- 2 ESTIMATE IS BASED ON 2015 DOLLAR VALUES AND CURRENT PRICING CONDITIONS. COST WILL FLUCTUATE BASED ON VARIOUS BIDDING CLIMATES AND ACTUAL SCOPE OF WORK.



ROUGH ORDER OF MAGNITUDE ESTIMATE
 3.1 STAFFING

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
PERMENANT STAFFING					
1	FULL TIME STAFF MEMBER (YEAR-ROUND OPERATIONS)	EA	2	70,000.00	140,000
SHERIFF'S DEPARTMENT					
2	CADET	EA	1460	13.39	19,550
3	PATROL CAR	EA	365	38.22	13,951
SUBTOTAL					\$173,501

- 1 COST FOR STAFFING AND CADET PATROL ASSUMES HIGHEST-COST SCENARIO OF STAFFING WILDERNESS AREA YEAR-ROUND. COUNTY SHOULD PERFORM PILOT PROGRAM AS OUTLINED IN 3.8 OPERATING HOURS AND DAYS TO ASSESS STAFFING NEEDS
- 2 COST FOR CADET PATROL IS ESTIMATED FOR (2) CADETS PATROLLING WILDERNESS AREA FOR (2) HOURS PER DAY, EVERYDAY FOR THE YEAR.



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
DRY STAND PIPE					
1	CLEARING AND GRUBBING	LS	LUMP SUM	5,000.00	5,000
2	TREE PRUNING AND REMOVAL	ALLOW	1	20,000.00	20,000
3	FIBER ROLL	LF	1350	5.00	6,750
4	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
5	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
6	REMOVE EXISTING ENCROACHING FENCES (SALVAGE PANELS FOR RELOCATION)	LF	750	2.00	1,500
7	DRY STANDPIPE CONNECTION	EA	1	2500.00	2,500
8	STANDPIPE OUTLETS (W/ VALVE)	EA	10	2500.00	25,000
9	MAINLINE, 4" PVC CL. 200	LF	200	35.00	7,000
10	MAINLINE 3" PVC CL 200	LF	1,700	30.00	51,000
11	EROSION CONTROL VEGETATED WITH CAL FIRE APPROVED NATIVE PLANTING	SF	157500	1.50	236,250
12	BARK MULCH (3" DEPTH)	CY	1459	30.00	43,770
13	RELOCATE FENCE TO PROPERTY LINE (ENCROACHMENT)	LF	735	100.00	73,500
14	MAINTENANCE ACCESS ROAD (10' GRAVEL PATH)	SF	22500	6.00	135,000
15	LANDSCAPE MAINTENANCE 90 DAY	LS	LUMP SUM	5,000.00	5,000
DESIGN AND PERMITTING					
16	SWPPP DOCUMENTATION	LS	LUMP SUM	58,652.00	58,652
17	DESIGN COST (8%)	LS	LUMP SUM	49,461.60	49,462
18	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	61,827.00	61,827
SUBTOTAL					\$756,461



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
WARNING SIGNS					
1	GENERAL PUBLIC NOTICE SIGN (AT TRAIL HEAD)	EA	1	1,500.00	1,500
2	WATER SAFETY SIGN (AT EACH WATER ACCESS LOCATION)	EA	3	750.00	2,250
3	OPERATIONS SIGN (AT TRAIL HEAD)	EA	1	0.00	0
4	MOUNTAIN LION WARNING SIGN (AT TRAIL HEAD)	EA	1	750.00	750
5	KAYAKING SIGN (AT EACH WATER ACCESS LOCATION)	EA	3	750.00	2,250
6	POISON OAK SIGN (AT TRAIL HEAD)	EA	1	750.00	750
SUBTOTAL					\$7,500

1 TRESPASSING SIGN COSTS MAY BE FOUND ON SECTION 3.14 ENCROACHMENTS/TRESPASSING COSTS.



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
EXTENSIVE RESTORATION EFFORTS					
1	MOBILIZATION (FIXED DROP COST)	LS	LUMP SUM	2,000.00	2,000
2	LARGE EQUIPMENT RENTAL	LS	LUMP SUM	5,000.00	5,000
3	REMOVAL OF LARGER VEGETATION (INITIAL COST)	LS	LUMP SUM	17,000.00	17,000
4	TRAIL MAINTENANCE	ALLOW	1	10,000.00	10,000
SUBTOTAL					\$34,000
ELDERBERRY PROTECTION					
5	SPLIT RAIL FENCING (WOOD)	LF	1350	50.00	67,500
SUBTOTAL					\$67,500
HABITAT MAINTENANCE TOTAL					\$101,500

¹ EXTENSIVE RESTORATION COST IS AN ANNUAL RECURRING COST. AS SHOWN, THIS DEMONSTRATES INITIAL MAINTENANCE. REDUCTION IN COST IS EXPECTED IF REGULAR, YEAR-ROUND OBSERVATION AND MAINTENANCE IS EXECUTED.



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
RIVER'S EDGE					
1	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
2	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
3	CLEARING AND GRUBBING	LS	LUMP SUM	5,000.00	5,000
4	EROSION CONTROL VEGETATED	SF	10000	5.00	50,000
5	EROSION CONTROL ROCK AND BOULDERS	SF	10000	50.00	500,000
6	REPAIR EROSION AT STORM DRAIN OUTLET	ALLOW	1	10,000.00	10,000
7	FIBER ROLL	LF	1000	5.00	5,000
DESIGN AND PERMITTING					
8	SWPPP DOCUMENTATION	LS	LUMP SUM	57,600.00	57,600
9	DESIGN COST (8%)	LS	LUMP SUM	46,080.00	46,080
10	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	57,600.00	57,600
10	US ARMY CORPS. OF ENGINEERS PERMITTING	LS	LUMP SUM	62,860.00	62,860
SUBTOTAL					\$800,140

- 1 EROSION CONTROL MEASURES ALONG RIVER'S EDGE ASSUMES WORST CASE SCENARIO WITH 10' DEPTH OF IMPROVEMENTS FROM RIVER'S EDGE, A COMBINATION OF BOTH VEGETATED AND ROCK/BOULDER EROSION CONTROL MEASURES
- 2 EROSION CONTROL MEASURES ALONG RIVER'S EDGE ASSUMES ONLY VEGETATION IS REQUIRED.



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
ACCESSIBILITY - EXISTING PATHWAYS					
1	MOBILIZATION	LS	LUMP SUM	2,000.00	2,000
2	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
3	DEMOLITION REMOVE EXISTING ASPHALT	SF	350	1.50	525
4	ROUGH GRADING CENTRAL SPINE AND PORTION OF FIRE LOOP	CY	350	7.00	2,450
5	FINE GRADING CENTRAL SPINE AND PORTION OF FIRE LOOP	SF	9400	0.50	4,700
6	PAVER ENTRY	SF	300	15.00	4,500
7	ASPHALT REPLACEMENT (FROM ENTRY INCLUDING TRAIL HEAD)	SF	3000	10.00	30,000
8	STEEL HEADER	LF	660	12.00	7,920
DESIGN AND PERMITTING					
9	DESIGN COST	LS	LUMP SUM	10,000.00	10,000
10	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	5,309.50	5,310
SUBTOTAL					\$53,095

NEW WESTERN LOOP					
10	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
11	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
12	ROUGH GRADING	CY	83	7.00	581
13	FINE GRADING	SF	2240	0.50	1,120
DESIGN AND PERMITTING					
14	DESIGN COST	LS	LUMP SUM	10,000.00	10,000
15	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	770.10	770
SUBTOTAL					\$18,471



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
BOARDWALK					
15	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
16	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
17	BOARDWALK (600 LF OF WALKWAY)	SF	3000	80.00	240,000
DESIGN AND PERMITTING					
18	DESIGN COST (8%)	LS	LUMP SUM	19,680.00	19,680
19	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	24,600.00	24,600
SUBTOTAL					\$290,280

¹ EROSION CONTROL MEASURES ALONG RIVER'S EDGE ASSUMES WORST CASE SCENARIO WITH 10' DEPTH OF IMPROVEMENTS FROM RIVER'S EDGE, A COMBINATION OF BOTH VEGETATED AND ROCK/BOULDER EROSION CONTROL MEASURES



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
IMPROVEMENTS AT CENTRAL SPINE WATER ACCESS					
1	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
2	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
3	CELLUAR CONTAINED GRAVEL	SF	660	6.00	3,960
4	BOULDERS	ALLOW	1	20,000.00	20,000
5	STEEL HEADER	LF	380	12.00	4,560
6	RAILING AROUND STORM DRAIN OUTLET (RIVER ACCESS AT CENTRAL SPINE)	LF	75	150.00	11,250
DESIGN AND PERMITTING					
7	DESIGN COSTS	LS	LUMP SUM	10,000.00	10,000
8	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	4,577.00	4,577
SUBTOTAL					\$60,347

IMPROVEMENTS AT MID WATER ACCESS					
8	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
9	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
10	CELLUAR CONTAINED GRAVEL	SF	320	6.00	1,920
11	BOULDERS	ALLOW	1	10,000.00	10,000
12	STEEL HEADER	LF	160	12.00	1,920
DESIGN AND PERMITTING					
13	DESIGN COSTS	LS	LUMP SUM	10,000.00	10,000
14	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	1,984.00	1,984
SUBTOTAL					\$31,824



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
IMPROVEMENTS AT WESTERNMOST WATER ACCESS					
14	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
15	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
16	BOULDER EMBEDMENT EROSION CONTROL	SF	300	50.00	15,000
DESIGN AND PERMITTING					
17	DESIGN COST	LS	LUMP SUM	10,000.00	10,000
18	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	2,100.00	2,100
SUBTOTAL					\$33,100

1 COSTS ASSUME THAT ALL IMPROVEMENTS STOP SHORT OF WATERWAY THUS NOT REQUIRING US ARMY CORPS. OF ENGINEERING PERMITS.



ROUGH ORDER OF MAGNITUDE ESTIMATE
 3.8 OPERATING HOURS AND DAYS

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
PILOT PROGRAM (PEAK AND NON-PEAK SEASONS)					
1	COMMUNITY ADVERTISING	LS	LUMP SUM	2,000.00	2,000
2	STAFFING (PART-TIME)	HOURS	713	13.50	9,626
3	EVALUATE AND PREPARE REPORT	LS	LUMP SUM	5,000.00	5,000
SUBTOTAL					\$16,626

ADDITIVE ALTERNATE - OPEN AND STAFFED EVERY DAY FOR A YEAR					
4	STAFFING (FULL-TIME)	EA	2	70,000.00	140,000
1	CADET	EA	1460	13.39	19,550
2	PATROL CAR	EA	365	38.22	13,951
SUBTOTAL					\$173,501

1 COSTING FOR INITIAL PILOT PROGRAM ASSUMES IMPLEMENTATION DURING PEAK SEASON SEASON FROM SUNRISE TO SUNSET (6 AM-8PM) FOR (31) DAYS AND NON-PEAK SEASON FROM SUNRISE TO SUNSET (8AM-5PM) FOR (31) DAYS).



WOODBIDGE WILDERNESS AREA MASTER PLAN
WOODBIDGE, CA

13314
2015.12.22

ROUGH ORDER OF MAGNITUDE ESTIMATE
3.9 MOTORIZED VEHICLES

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
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¹ THERE ARE NO ADDITIONAL COST IMPLICATIONS WITH 3.9 MOTORIZED VEHICLES SECTION.



ROUGH ORDER OF MAGNITUDE ESTIMATE
3.10 AMENITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
ENTRY GATE					
1	REMOVABLE ENTRY BOLLARD	LS	LUMP SUM	750.00	750
SUBTOTAL					\$750

TRAIL HEAD					
2	MOBILIZATION	LS	LUMP SUM	2,000.00	2,000
3	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
4	TRAIL HEAD STRUCTURE (WOOD)	LS	LUMP SUM	50,000.00	50,000
5	DRINKING FOUNTAIN	ALLOW	1	5,000.00	5,000
6	EXTEND POTABLE WATER LINE FOR NEW DRINKING FOUNTAIN LOCATION	ALLOW	1	3,000.00	3,000
7	BENCH NODES (2 TOTAL)	ALLOW	1	4,000.00	4,000
8	BIKE PARKING	ALLOW	1	3,000.00	3,000
DESIGN AND PERMITTING					
9	DESIGN COST	LS	LUMP SUM	15,000.00	15,000
10	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	6,800.00	6,800
SUBTOTAL					\$89,800

TRAIL AMENITIES					
11	MOBILIZATION	LS	LUMP SUM	2,000.00	2,000
12	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
13	CONCRETE PAD FOR TOILET (GRADING AND 7'X12' CONCRETE PAD)	LS	LUMP SUM	2,000.00	2,000
14	BENCH NODES (3 TOTAL)	ALLOW	1	12,000.00	12,000
DESIGN AND PERMITTING					
15	DESIGN COST	LS	LUMP SUM	10,000.00	10,000
16	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	1,700.00	1,700
SUBTOTAL					\$27,000



WOODBIDGE WILDERNESS AREA MASTER PLAN
WOODBIDGE, CA

13314
2015.12.22

ROUGH ORDER OF MAGNITUDE ESTIMATE
3.11 ACTIVITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
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¹ THERE ARE NO ADDITIONAL COST IMPLICATIONS WITH 3.11 ACTIVITIES SECTION.



ROUGH ORDER OF MAGNITUDE ESTIMATE
 3.12 SIGNAGE

ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
1	MOBILIZATION	LS	LUMP SUM	2,000.00	2,000
2	WAYFINDING SIGNS	EA	6	750.00	4,500
3	INTERPRETIVE SIGNS	EA	4	4,000.00	16,000
DESIGN AND PERMITTING					
4	DESIGN COST	LS	LUMP SUM	10,000.00	10,000
SUBTOTAL					\$32,500

1 SIGNS FOR PUBLIC SAFETY MAY BE FOUND IN SECTION 3.3 PUBLIC SAFETY.



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
OUTDOOR CLASSROOM					
1	MOBILIZATION	LS	LUMP SUM	2,000.00	2,000
2	TEMPORARY FENCE (TYPE CL-6)	LF	80	3.00	240
3	ROUGH GRADING (20' x 20')	CY	15	7.00	105
4	FINE GRADING (20' x 20')	SF	400	0.50	200
5	CLEARING AND GRUBBING	SF	400	0.20	80
6	STUMP SEATING	ALLOW	1	5,000.00	5,000
DESIGN AND PERMITTING					
7	DESIGN COST	LS	LUMP SUM	5,000.00	5,000
8	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	762.50	763
SUBTOTAL					\$12,625



ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE (\$)	TOTAL PRICE (\$)
TRESPASSING AT EAST AND WEST BORDERS					
1	MOBILIZATION	LS	LUMP SUM	5,000.00	5,000
2	CLEARING AND GRUBBING	LS	LUMP SUM	1,000.00	1,000
2	CONSTRUCTION STAKING	LS	LUMP SUM	10,000.00	10,000
3	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	1,000.00	1,000
4	ORNAMENTAL WELDED WIRE FENCE	EA	575	75.00	43,125
5	NO TRESPASSING SIGN (3) AT EASTERN AND WESTERN BORDERS	EA	6	750.00	4,500
5	NATIVE DETURRENT PLANTING	SF	3450	3.00	10,350
DESIGN AND PERMITTING					
6	DESIGN COST (8%)	LS	LUMP SUM	5,998.00	5,998
7	CONSTRUCTION CONTINGENCY (10%)	LS	LUMP SUM	7,497.50	7,498
SUBTOTAL					\$88,471

¹ COST IMPLICATIONS FOR ENCROACHMENTS ARE ADDRESSED IN SECTION 3.5, BERM AT REAR OF RESIDENTIAL PROPERTIES