

OPINION OF PROBABLE CONSTRUCTION COSTS

Project Area 24

Tucannon River Restoration

Item No.	Work Item	Unit	Quantity	Unit Cost	Line Cost	Notes
1.00	General Requirements					
1.01	Mobilization, including demobilization (10%)	LS	1	\$ 67,100	\$ 67,100	1
2.00	Water/TESC/SPCC/Traffic Control Plans				\$ 3,850	2
2.01	Care of Water Plan	LS	1	\$ 1,650	\$ 1,650	
2.02	Temporary Erosion and Sediment Control (TESC) Plan	LS	1	\$ 1,100	\$ 1,100	
2.03	Spill Prevention Control and Countermeasure (SPCC) Plan	LS	1	\$ 1,100	\$ 1,100	
3.00	Site Preparation and TESC Measures				\$ 3,300	3
3.01	Construction Entrances	EA	2	\$ 1,650	\$ 3,300	
3.02	Fence, Silt, install, maintain, remove	LF	-	\$ 8.80	\$ -	
4.00	Single (S) LWD	EA	30	\$ 1,000	\$ 30,000	
4.01	Rootwad Log, 1.5' dia. 35' L Log, 4.5' dia. 3' L RW	EA	30	\$ 770	\$ 23,100	4
4.02	Synthetic Manila Rope 11/16" dia.	LF	900	\$ 1.00	\$ 900	
4.03	Earthwork, excavation, backfill & compaction	CY	180	\$ -	\$ -	
4.04	Installation (labor & equipment)	EA	30	\$ 200	\$ 6,000	
5.00	Rootwad Refuge and Retention (3R) LWD	EA	5	\$ 4,759	\$ 23,794	
5.01	Rootwad Log, 1.5' dia. 25' L Log, 4.5' dia. 3' L RW	EA	15	\$ 660	\$ 9,900	4
5.02	Boulder, 3.8' intermediate dia.	EA	30	\$ 210	\$ 6,300	
5.03	Concrete anchor, four-way expansion type, 3/4"-10 thread	EA	30	\$ 6.60	\$ 198	
5.04	Steel eye bolt, for lifting, 3/4"-10 thread, 3" L	EA	30	\$ 34	\$ 1,020	
5.05	Chain, 3/8-inch trade size, grade 40/43	LF	250	\$ 4.40	\$ 1,100	
5.06	Hammer-Close Connector, for 3/8-inch chain	EA	30	\$ 9.20	\$ 276	
5.07	Installation (labor & equipment)	EA	5	\$ 1,000	\$ 5,000	
6.00	Bank Barb (BB) ELJ	EA	4	\$ 21,684	\$ 86,735	
6.01	Earthwork, excavation, bulk	CY	880	\$ -	\$ -	
6.02	Log Pole, 1.25' dia., 20' L	EA	12	\$ 110	\$ 1,320	4
6.03	Log Pole, 1.5' dia., 20' L	EA	16	\$ 220	\$ 3,520	4
6.04	Log Pole, 2' dia., 20' L	EA	8	\$ 330	\$ 2,640	4
6.05	Rootwad log, 1.25' dia. 20' L Log, 3.75' dia. 2.5' L RW	EA	60	\$ 550	\$ 33,000	4
6.06	Rootwad Log, 1.5' dia. 20' L Log, 4.5' dia. 3' L RW	EA	20	\$ 605	\$ 12,100	4
6.07	Chain, 3/8-inch trade size, grade 40/43	LF	1,392	\$ 4.40	\$ 6,125	
6.08	Hammer-Close Connector, for 3/8-inch chain	EA	72	\$ 9.24	\$ 665	
6.09	Steel staples, 1/2" x 6" length	EA	336	\$ 3.30	\$ 1,109	
6.10	Slash and small woody debris	CY	32	\$ 33	\$ 1,056	
6.11	Earthwork, backfill, native	CY	880	\$ -	\$ -	
6.12	Installation (labor & equipment)	EA	4	\$ 6,300	\$ 25,200	
7.00	Channel Barb (CB) ELJ	EA	2	\$ 8,716	\$ 17,433	
7.01	Earthwork, excavation, bulk	CY	100	\$ -	\$ -	
7.02	Log Pole, 1.5' dia., 20' L	EA	14	\$ 220	\$ 3,080	4
7.03	Rootwad Log, 1.5' dia. 20' L Log, 4.5' dia. 3' L RW	EA	16	\$ 605	\$ 9,680	4
7.04	Chain, 3/8-inch trade size, grade 40/43	LF	240	\$ 4.40	\$ 1,056	
7.05	Hammer-Close Connector, for 3/8-inch chain	EA	8	\$ 9.20	\$ 74	
7.06	Steel staples, 1/2" x 6" length	EA	64	\$ 3.30	\$ 211	
7.07	Slash and small woody debris	CY	4	\$ 33	\$ 132	
7.08	Earthwork, backfill, native	CY	100	\$ -	\$ -	
7.09	Installation (labor & equipment)	EA	2	\$ 1,600	\$ 3,200	
8.00	Bar Apex Racking (BAR) ELJ	EA	3	\$ 12,748	\$ 38,244	
8.01	Earthwork, excavation, bulk	CY	30	\$ -	\$ -	
8.02	Log Pole, 1.25' dia., 35' L	EA	18	\$ 110	\$ 1,980	4
8.03	Rootwad Log, 1.25' dia. 35' L Log, 3.75' dia. 2.5' L RW	EA	36	\$ 550	\$ 19,800	4
8.04	Slash and small woody debris	CY	30	\$ 33	\$ 990	
8.05	Chain, 3/8-inch trade size, grade 40/43	LF	1080	\$ 4.40	\$ 4,752	
8.06	Hammer-Close Connector, for 3/8-inch chain	EA	90	\$ 9.20	\$ 828	
8.07	Steel staples, 1/2" x 6" length	EA	180	\$ 3.30	\$ 594	
8.08	Earthwork, backfill, native	CY	66	\$ -	\$ -	
8.09	Installation (labor & equipment)	EA	3	\$ 3,100	\$ 9,300	

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Project Area 24

Tucannon River Restoration

Item No.	Work Item	Unit	Quantity	Unit Cost	Line Cost	Notes
9.00	Channel Grade ELJ	EA	6	\$ 24,059	\$ 144,357	
9.01	Earthwork, excavation, bulk	CY	330	\$ -	\$ -	
9.02	Log Pole, 1.5' dia., 20' L	EA	12	\$ 220	\$ 2,640	4
9.03	Log Pole, 2' dia., 40' L	EA	54	\$ 550	\$ 29,700	4
9.04	Rootwad Log, 1.5' dia. 20' L Log, 4.5' dia. 3' L RW	EA	24	\$ 605	\$ 14,520	4
9.05	Chain, 3/8-inch trade size, grade 40/43	LF	1234	\$ 4.40	\$ 5,430	
9.06	Coupling Links, figure-eight style, 1/2-inch dia, for 3/8-inch chain	EA	60	\$ 27	\$ 1,617	
9.07	Steel staples, 1/2" x 6" length	EA	336	\$ 3.30	\$ 1,109	
9.08	Slash and small woody debris	CY	60	\$ 33	\$ 1,980	
9.09	Boulder, 3.8' intermediate dia.	EA	216	\$ 210	\$ 45,360	
9.10	Earthwork, backfill, native	CY	330	\$ -	\$ -	
9.11	Installation (labor & equipment)	EA	6	\$ 7,000	\$ 42,000	
10.00	Bar Apex ELJ	EA	4	\$ 37,655	\$ 150,619	
10.01	Earthwork, excavation, bulk	CY	2,040	\$ -	\$ -	
10.02	Log Pole, 1.5' dia., 25' L	EA	60	\$ 275	\$ 16,500	4
10.03	Log Pole, 1.5' dia., 35' L	EA	72	\$ 385	\$ 27,720	4
10.04	Log Pole, 2' dia., 40' L	EA	8	\$ 550	\$ 4,400	4
10.05	Rootwad Log, 1.5' dia. 25' L Log, 4.5' dia. 3' L RW	EA	60	\$ 660	\$ 39,600	4
10.06	Chain, 3/8-inch trade size, grade 40/43	LF	736	\$ 4.40	\$ 3,238	
10.07	Hammer-Close Connector, for 3/8-inch chain	EA	16	\$ 9.20	\$ 147	
10.08	Steel staples, 1/2" x 6" length	EA	192	\$ 3.30	\$ 634	
10.09	Slash and small woody debris	CY	60	\$ 33	\$ 1,980	
10.10	Earthwork, backfill, native	CY	2,040	\$ -	\$ -	
10.11	Installation (labor & equipment)	EA	4	\$ 14,100	\$ 56,400	
11.00	Excavation of Levees and Channels	LS	1		\$ 80,300	
11.01	Earthwork, excavation and reuse as ballast for structures	CY	3,500	\$ 22	\$ 77,000	
11.02	Clearing and Grubbing	AC	0.6	\$ 5,500	\$ 3,300	
12.00	Care of Water Work				\$ 91,960	3
12.01	Fence, fish exclusion, temporary	EA	20	\$ 275	\$ 5,500	
12.02	Temporary flow diversion, bulk bags and plastic sheeting	EA	18	\$ 1,650	\$ 29,700	
12.03	Fish rescue and recovery	EA	20	\$ 1,650	\$ 33,000	
12.04	Dewatering, pumping	EA	18	\$ 1,320	\$ 23,760	
SUMMARY						
	Construction Subtotal				\$ 737,691	5
	Columbia County sales tax (8.1%)				\$ 59,753	6
	Project Construction Total				\$ 797,444	7-12

Notes and abbreviations:

- Mobilization is assumed to be 10% of the pre-tax subtotal.
- Costs do not include traffic control plan or traffic control measures. It is assumed it will not be necessary.
- The extent of site preparation and TESC Measures along with requirements for care of water work will be defined by the permits.
- Rootwad and log pole lengths are for procurement purposes, all materials are cut to fit. It is assumed that material longer than what is required will be cut to fit and the excess used in other portions of the feature or structure.
- Construction subtotal includes mobilization.
- Sales tax is applied to the 'Construction Subtotal'.
- Costs are in 2014 dollars.
- Survey work required for construction is not included in this opinion.
- Construction quality assurance oversight activities by the Engineer required for construction is not included in this opinion.
- Engineering design/permitting, legal, and administrative costs are not included in this opinion.
- Costs for maintaining project post-construction are not included in this opinion (e.g. irrigation and planting protection measures).
- In providing opinions of probable construction cost, the Client understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market condition or the Contractor's method of pricing, and the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, expressed or implied that the bids or the negotiated cost of the Work will not vary from the Consultant's opinion of probable construction cost.

AC - Acre, CY - Cubic Yard, Dia. - Diameter, EA - Each, LF - Linear Foot, LS - Lump Sum, SY - Square Yard, YR - Year
LWD - Large Woody Debris
ELJ - Engineered Log Jam

Cap. - Capacity
RW - Rootwad