



Department of Permitting
 Environmental Review
 35030 SE Douglas Str, Suite 210
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 206-296-6600 TTY Relay: 711

**Critical Areas Mitigation
 Bond Quantity Worksheet**

C24 09/09/2015
 Is-wks-sensareaBQ.xls
 Is-wks-sensareaBQ.pdf

Project Name: _____ **Date:** 12/20/2022 **Prepared by:** Kristin DeRose - Ragen & Assoc.

Project Number: _____ **Project Description:** _____

Location: _____ **Applicant:** _____ **Phone:** 360-820-4242

PLANT MATERIALS (includes labor cost for plant installation)

Type	Unit Price	Unit	Quantity	Description	Cost
PLANTS: Potted, 4" diameter, medium	\$5.00	Each	136	PNW natives	\$ 680 -
PLANTS: Container, 1 gallon, medium soil	\$11.50	Each	72	mixed perennials	\$ 828 -
PLANTS: Container, 2 gallon, medium soil	\$20.00	Each			\$ -
PLANTS: Container, 5 gallon, medium soil	\$36.00	Each	36	trees and shrubs	\$ 1,296 -
PLANTS: Seeding, by hand	\$0.50	SY			\$ -
PLANTS: Slips (willow, red-osier)	\$2.00	Each			\$ -
PLANTS: Stakes (willow)	\$2.00	Each	14	for trees	\$ 28 -
PLANTS: Stakes (willow)	\$2.00	Each			\$ -
PLANTS: Flats/plugs	\$2.00	Each			\$ -
TOTAL					\$ 2,832 -

INSTALLATION COSTS (LABOR, EQUIPMENT, & OVERHEAD)

Type	Unit Price	Unit	Quantity	Description	Cost
Compost, vegetable, delivered and spread	\$37.88	CY	4		\$ 151.52 -
Decompacting till/hardpan, medium, to 6" depth	\$1.57	CY			\$ -
Decompacting till/hardpan, medium, to 12" depth	\$1.57	CY	22		\$ 34.54 -
Hydroseeding	\$0.51	SY			\$ -
Labor, general (landscaping other than plant installation)	\$40.00	HR	520		\$ 20,8000 -
Labor, general (construction)	\$40.00	HR	750		\$ 30,000 -
Labor: Consultant, supervising	\$55.00	HR	36		\$ 1,980 -
Labor: Consultant, on-site re-design	\$95.00	HR	45		\$ 4,275 -
Rental of decompacting machinery & operator	\$70.00	HR	40		\$ 2,800 -
Sand, coarse builder's, delivered and spread	\$42.00	CY			\$ -
Staking material (set per tree)	\$7.00	Each	14		\$ 98 -
Surveying, line & grade	\$250.00	HR			\$ -
Surveying, topographical	\$250.00	HR			\$ -
Watering, 1" of water, 50' soaker hose	\$3.62	MSF			\$ -
Irrigation - temporary	\$3,000.00	Acre			\$ -
Irrigation - buried	\$4,500.00	Acre	1		\$ 4,500 -
Tilling topsoil, disk harrow, 20hp tractor, 4"-6" deep	\$1.02	SY			\$ -
TOTAL					\$ 64,639.06 -

HABITAT STRUCTURES*

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Fascines (willow)	\$ 2.00	Each			\$ -
Logs, (cedar), w/ root wads, 16"-24" diam., 30' long	\$1,000.00	Each			\$ -
Logs (cedar) w/o root wads, 16"-24" diam., 30'	\$400.00	Each			\$ -
Logs, w/o root wads, 16"-24" diam., 30' long	\$245.00	Each			\$ -
Logs w/ root wads, 16"-24" diam., 30' long	\$460.00	Each			\$ -
Rocks, one-man	\$60.00	Each	13		\$ 780 -
Rocks, two-man	\$120.00	Each	18		\$ 2,160 -
Root wads	\$163.00	Each			\$ -
Spawning gravel, type A	\$22.00	CY	6		\$ 132 -
Weir - log	\$1,500.00	Each			\$ -
Weir - adjustable	\$2,000.00	Each			\$ -
Woody debris, large	\$163.00	Each			\$ -
Snags - anchored	\$400.00	Each			\$ -
Snags - on site	\$50.00	Each			\$ -
Snags - imported	\$800.00	Each			\$ -
TOTAL					\$ 3,072 -

* All costs include delivery and installation

EROSION CONTROL

ITEMS	Unit Cost	Unit	Quantity	Description	Cost
Backfill and Compaction-embankment	\$ 4.89	CY	8		\$ 39.12 -
Crushed surfacing, 1 1/4" minus	\$30.00	CY			\$ -
Ditching	\$7.03	CY			\$ -
Excavation, bulk	\$4.00	CY	16		\$ 64 -
Fence, silt	\$1.60	LF	55		\$ 88 -
Jute Mesh	\$1.26	SY	45		\$ 56.75 -
Mulch, by hand, straw, 2" deep	\$1.27	SY			\$ -
Mulch, by hand, wood chips, 2" deep	\$3.25	SY			\$ -
Mulch, by machine, straw, 1" deep	\$0.32	SY			\$ -
Piping, temporary, CPP, 6"	\$9.30	LF			\$ -
Piping, temporary, CPP, 8"	\$14.00	LF			\$ -
Piping, temporary, CPP, 12"	\$18.00	LF			\$ -
Plastic covering, 6mm thick, sandbagged	\$2.00	SY			\$ -
Rip Rap, machine placed, slopes	\$33.98	CY	7		\$ 237.86 -
Rock Constr. Entrance 100'x15'x1'	\$3,000.00	Each			\$ -
Rock Constr. Entrance 50'x15'x1'	\$1,500.00	Each			\$ -
Sediment pond riser assembly	\$1,695.11	Each			\$ -
Sediment trap, 5' high berm	\$15.57	LF	12		\$ 192 -
Sediment trap, 5' high berm w/spillway incl. riprap	\$59.60	LF			\$ -
Sodding, 1" deep, level ground	\$5.24	SY			\$ -
Sodding, 1" deep, sloped ground	\$6.48	SY			\$ -
Straw bales, place and remove	\$600.00	TON			\$ -
Hauling and disposal	\$20.00	CY	16		\$ -
Topsoil, delivered and spread	\$35.73	CY	14		\$ -
TOTAL					\$ 677.73 -

GENERAL ITEMS					
ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	\$18.89	LF			\$ -
Fencing, chain link, corner posts	\$111.17	Each			\$ -
Fencing, chain link, gate	\$277.63	Each			\$ -
Fencing, split rail, 3' high (2-rail)	\$10.54	LF			\$ -
Fencing, temporary (NGPE)	\$1.20	LF			\$ -
Signs, sensitive area boundary (inc. backing, post, install)	\$28.50	Each	7		\$ 199.5 -
TOTAL					\$ 199.50 -
OTHER				(Construction Cost Subtotal)	\$ -
ITEMS	Percentage of Construction Cost	Unit			Cost
Mobilization	10%	1			\$ -
Contingency	30%	1			\$ -
TOTAL					\$ -
<p>MAINTENANCE AND MONITORING</p> <p>NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintenance ranges may be assessed anywhere from 5 to 10 years.</p>					
Maintenance, annual (by owner or consultant)					
Less than 1,000 sq.ft. and buffer mitigation only	\$ 1.08	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	\$ 1.35	SF		(3 X SF total for 3 annual events; Includes monitoring)	\$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	\$ 180.00	EACH	1	(4hr @ \$45/hr)	\$ 180 -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	\$ 270.00	EACH		(6hr @ \$45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	\$ 360.00	EACH		(8 hrs @ 45/hr)	\$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	\$ 450.00	EACH		(10 hrs @ \$45/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 1,600.00	DAY		(WEC crew)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	\$ 2,000.00	DAY		(1.25 X WEC crew)	\$ -
Monitoring, annual (by owner or consultant)					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	\$ 720.00	EACH	1	(8 hrs @ 90/hr)	\$ 720 -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	\$ 900.00	EACH		(10 hrs @ \$90/hr)	\$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	\$ 1,440.00	DAY		(16 hrs @ \$90/hr)	\$ -
Larger than 5 acres - buffer and / or wetland or aquatic area impacts	\$ 2,160.00	DAY		(24 hrs @ \$90/hr)	\$ -
TOTAL					\$ 900 -
Total					\$ 72,320.29