

Estimated by SPA Cost Engineering  
Designed by US Army Corps of Engineers, Albuquerque District  
Prepared by SPA Cost Engineering  
Preparation Date 9/9/2017  
Effective Date of Pricing 9/9/2017  
Estimated Construction Time Days

**Date** **Author** **Note**

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>BID SCHEDULE REPORT</b>			<b>66,709,725.38</b>	<b>7,591,379.39</b>	<b>6,326,149.49</b>	<b>16,677,431.35</b>	<b>9,637,582.53</b>	<b>106,942,268.14</b>
			<i>66,709,725.38</i>					<i>106,942,268.14</i>
Sandia to Isleta	1.00	EA	66,709,725.38	7,591,379.39	6,326,149.49	16,677,431.35	9,637,582.53	106,942,268.14
Project ID #1	1.00	LS	5,396,928.88	621,795.29	518,162.74	1,349,232.22	764,706.42	8,650,825.55
Fish and Wildlife Facilities	1.00	LS	5,396,928.88	621,795.29	518,162.74	1,349,232.22	764,706.42	8,650,825.55
Project ID #2	1.00	LS	471,321.23	47,767.63	39,806.36	117,830.31	79,604.32	756,329.85
Fish and Wildlife Facilities	1.00	LS	471,321.23	47,767.63	39,806.36	117,830.31	79,604.32	756,329.85
Project ID #3	1.00	LS	9,619,324.94	1,107,088.53	922,573.78	2,404,831.24	1,365,306.79	15,419,125.27
Fish and Wildlife Facilities	1.00	LS	9,619,324.94	1,107,088.53	922,573.78	2,404,831.24	1,365,306.79	15,419,125.27
Project ID #4	1.00	LS	968,063.27	102,770.87	85,642.39	242,015.82	154,360.27	1,552,852.61
Fish and Wildlife Facilities	1.00	LS	968,063.27	102,770.87	85,642.39	242,015.82	154,360.27	1,552,852.61
Project ID #5	1.00	LS	3,664,299.51	412,144.34	343,453.62	916,074.88	538,884.60	5,874,856.94
Fish and Wildlife Facilities	1.00	LS	3,664,299.51	412,144.34	343,453.62	916,074.88	538,884.60	5,874,856.94
Project ID #6	1.00	LS	396,300.06	44,734.18	37,278.48	99,075.02	57,967.17	635,354.90
Fish and Wildlife Facilities	1.00	LS	396,300.06	44,734.18	37,278.48	99,075.02	57,967.17	635,354.90
Project ID #7	1.00	LS	2,091,264.72	234,415.66	195,346.38	522,816.18	309,119.55	3,352,962.49
Fish and Wildlife Facilities	1.00	LS	2,091,264.72	234,415.66	195,346.38	522,816.18	309,119.55	3,352,962.49
Project ID #8	1.00	LS	2,081,779.87	236,184.34	196,820.28	520,444.97	302,161.19	3,337,390.65
Fish and Wildlife Facilities	1.00	LS	2,081,779.87	236,184.34	196,820.28	520,444.97	302,161.19	3,337,390.65
Project ID #9	1.00	LS	603,669.70	68,539.41	57,116.18	150,917.43	87,519.49	967,762.21
Fish and Wildlife Facilities	1.00	LS	603,669.70	68,539.41	57,116.18	150,917.43	87,519.49	967,762.21
Project ID #11	1.00	LS	2,748,982.57	315,802.55	263,168.79	687,245.64	391,307.43	4,406,506.97
Fish and Wildlife Facilities	1.00	LS	2,748,982.57	315,802.55	263,168.79	687,245.64	391,307.43	4,406,506.97
Project ID #12	1.00	LS	1,100,834.68	128,361.31	106,967.76	275,208.67	152,976.36	1,764,348.78
Fish and Wildlife Facilities	1.00	LS	1,100,834.68	128,361.31	106,967.76	275,208.67	152,976.36	1,764,348.78
Project ID #14	1.00	LS	3,032,097.66	337,452.59	281,210.50	758,024.42	452,943.80	4,861,728.97
Fish and Wildlife Facilities	1.00	LS	3,032,097.66	337,452.59	281,210.50	758,024.42	452,943.80	4,861,728.97
Project ID #15	1.00	LS	3,410,405.57	384,143.85	320,119.87	852,601.39	500,454.41	5,467,725.10
Fish and Wildlife Facilities	1.00	LS	3,410,405.57	384,143.85	320,119.87	852,601.39	500,454.41	5,467,725.10
Project ID #16	1.00	LS	2,397,322.24	275,788.56	229,823.80	599,330.56	340,495.11	3,842,760.28
Fish and Wildlife Facilities	1.00	LS	2,397,322.24	275,788.56	229,823.80	599,330.56	340,495.11	3,842,760.28

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Project ID #17	1.00	LS	3,237,661.98	370,381.23	308,651.03	809,415.50	463,931.35	5,190,041.09
Fish and Wildlife Facilities	1.00	LS	3,237,661.98	370,381.23	308,651.03	809,415.50	463,931.35	5,190,041.09
Project ID #18	1.00	LS	826,547.47	91,053.65	75,878.04	206,636.87	125,307.98	1,325,424.01
Fish and Wildlife Facilities	1.00	LS	826,547.47	91,053.65	75,878.04	206,636.87	125,307.98	1,325,424.01
Project ID #19	1.00	LS	869,671.19	99,663.94	83,053.29	217,417.80	124,272.62	1,394,078.84
Fish and Wildlife Facilities	1.00	LS	869,671.19	99,663.94	83,053.29	217,417.80	124,272.62	1,394,078.84
Project ID #20	1.00	LS	3,588,874.63	413,474.29	344,561.91	897,218.66	508,537.63	5,752,667.12
Fish and Wildlife Facilities	1.00	LS	3,588,874.63	413,474.29	344,561.91	897,218.66	508,537.63	5,752,667.12
Project ID #21	1.00	LS	1,453,130.48	160,738.59	133,948.83	363,282.62	219,006.22	2,330,106.73
Fish and Wildlife Facilities	1.00	LS	1,453,130.48	160,738.59	133,948.83	363,282.62	219,006.22	2,330,106.73
Project ID #22	1.00	LS	1,728,275.33	197,051.47	164,209.56	432,068.83	248,941.85	2,770,547.05
Fish and Wildlife Facilities	1.00	LS	1,728,275.33	197,051.47	164,209.56	432,068.83	248,941.85	2,770,547.05
Project ID #23	1.00	LS	2,428,342.60	274,444.37	228,703.64	607,085.65	354,540.26	3,893,116.53
Fish and Wildlife Facilities	1.00	LS	2,428,342.60	274,444.37	228,703.64	607,085.65	354,540.26	3,893,116.53
Project ID #24	1.00	LS	1,994,056.64	224,756.12	187,296.77	498,514.16	292,324.09	3,196,947.77
Fish and Wildlife Facilities	1.00	LS	1,994,056.64	224,756.12	187,296.77	498,514.16	292,324.09	3,196,947.77
Project ID #25	1.00	LS	3,869,623.55	445,155.81	370,963.18	967,405.89	549,621.26	6,202,769.68
Fish and Wildlife Facilities	1.00	LS	3,869,623.55	445,155.81	370,963.18	967,405.89	549,621.26	6,202,769.68
Project ID #26	1.00	LS	8,730,946.60	997,670.80	831,392.33	2,182,736.65	1,253,292.36	13,996,038.74
Fish and Wildlife Facilities	1.00	LS	8,730,946.60	997,670.80	831,392.33	2,182,736.65	1,253,292.36	13,996,038.74

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>PROJECT COST SUMMARY</b>			<b>66,709,725.38</b>	<b>7,591,379.39</b>	<b>6,326,149.49</b>	<b>16,677,431.35</b>	<b>9,637,582.53</b>	<b>106,942,268.14</b>
Sandia to Isleta	1.0000	EA	66,709,725.38	7,591,379.39	6,326,149.49	16,677,431.35	9,637,582.53	106,942,268.14
Project ID #1	1.0000	LS	5,396,928.88	621,795.29	518,162.74	1,349,232.22	764,706.42	8,650,825.55
Fish and Wildlife Facilities	1.0000	LS	5,396,928.88	621,795.29	518,162.74	1,349,232.22	764,706.42	8,650,825.55
Swale	15.4500	ACR	2,495,313.46	298,354.30	248,628.59	623,828.36	332,255.52	3,998,380.23
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
Vegetation Removal	12,463.0000	LCY	236,912.98	28,429.56	23,691.30	59,228.25	31,343.59	379,605.67
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
Clearing	12,463.0000	LCY	56,018.83	6,722.26	5,601.88	14,004.71	7,411.29	89,758.97
VEG REMOVAL ABOVE GROUND	15.4500	ACR	13,549.58	1,625.95	1,354.96	3,387.40	1,792.61	21,710.49
Clearing Large Site	12,463.0000	LCY	42,469.25	5,096.31	4,246.92	10,617.31	5,618.68	68,048.48
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
Haul Waste	14,332.0000	LCY	180,894.15	21,707.30	18,089.42	45,223.54	23,932.30	289,846.70
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	14,332.0000	LCY	180,894.15	21,707.30	18,089.42	45,223.54	23,932.30	289,846.70
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
Excavation, Random	74,778.0000	BCY	367,221.43	44,066.57	36,722.14	91,805.36	48,583.39	588,398.89
Excavation, Random	74,778.0000	CY	367,221.43	44,066.57	36,722.14	91,805.36	48,583.39	588,398.89
Rough Grading	74,778.0000	SY	37,031.27	4,443.75	3,703.13	9,257.82	4,899.24	59,335.21
Rough Grading	74,778.0000	SY	37,031.27	4,443.75	3,703.13	9,257.82	4,899.24	59,335.21
Compaction	24,926.0000	ECY	37,061.09	4,447.33	3,706.11	9,265.27	4,903.18	59,382.98
Compaction	24,926.0000	ECY	37,061.09	4,447.33	3,706.11	9,265.27	4,903.18	59,382.98
Load/Handle Waste Material	85,995.0000	LCY	119,735.47	14,368.26	11,973.55	29,933.87	15,841.00	191,852.14
Load Waste Material	85,995.0000	LCY	119,735.47	14,368.26	11,973.55	29,933.87	15,841.00	191,852.14
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
Haul Waste Material	85,995.0000	LCY	353,897.18	42,467.66	35,389.72	88,474.30	46,820.60	567,049.46
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	85,995.0000	LCY	353,897.18	42,467.66	35,389.72	88,474.30	46,820.60	567,049.46

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<p>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</p>								
<b>Revegetation</b>	<b>15.4500</b>	<b>ACR</b>	<b>1,334,426.44</b>	<b>160,131.17</b>	<b>133,442.64</b>	<b>333,606.61</b>	<b>176,544.62</b>	<b>2,138,151.48</b>
<p>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</p>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,262,986.42</b>	<b>151,558.37</b>	<b>126,298.64</b>	<b>315,746.61</b>	<b>167,093.10</b>	<b>2,023,683.15</b>
<p>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</p>								
Cottonwood Trees	417.1500	EA	52,133.88	6,256.07	5,213.39	13,033.47	6,897.31	83,534.11
Delivery - Cottonwood Trees	417.1500	EA	2,895.48	347.46	289.55	723.87	383.07	4,639.43
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
Coyote Willows	74,778.0000	EA	988,936.72	118,672.41	98,893.67	247,234.18	130,836.33	1,584,573.31
Delivery - Coyote Willows	74,778.0000	EA	131,820.25	15,818.43	13,182.02	32,955.06	17,439.82	211,215.58
<p>(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)</p>								
Gooding's Willows	849.7500	EA	81,301.88	9,756.23	8,130.19	20,325.47	10,756.24	130,270.01
Delivery - Gooding's Willow Trees	849.7500	EA	5,898.21	707.78	589.82	1,474.55	780.33	9,450.70
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>50,891.19</b>	<b>6,106.94</b>	<b>5,089.12</b>	<b>12,722.80</b>	<b>6,732.90</b>	<b>81,542.96</b>
<p>(Note: Assume 62 shrubs per acre.)</p>								
Shrubs	957.9000	EA	44,981.07	5,397.73	4,498.11	11,245.27	5,951.00	72,073.17
Delivery - Shrubs	957.9000	EA	5,910.12	709.21	591.01	1,477.53	781.91	9,469.79
<p>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</p>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>20,548.82</b>	<b>2,465.86</b>	<b>2,054.88</b>	<b>5,137.21</b>	<b>2,718.61</b>	<b>32,925.38</b>
PLUGS	5,407.5000	EA	17,117.14	2,054.06	1,711.71	4,279.28	2,264.60	27,426.79
Delivery - PLUGS	5,407.5000	EA	3,431.68	411.80	343.17	857.92	454.01	5,498.59
<p>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</p>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>9,027.60</b>	<b>0.00</b>	<b>0.00</b>	<b>2,256.90</b>	<b>3,319.90</b>	<b>14,604.40</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,009.20</b>	<b>0.00</b>	<b>0.00</b>	<b>752.30</b>	<b>1,106.63</b>	<b>4,868.14</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.0000</b>	<b>ACR</b>	<b>3,009.20</b>	<b>0.00</b>	<b>0.00</b>	<b>752.30</b>	<b>1,106.63</b>	<b>4,868.14</b>
VEG REMOVAL ABOVE GROUND	1.0000	ACR	576.88	0.00	0.00	144.22	212.15	933.24
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	2.0000	ACR	2,432.33	0.00	0.00	608.08	894.49	3,934.90
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>6,018.40</b>	<b>0.00</b>	<b>0.00</b>	<b>1,504.60</b>	<b>2,213.27</b>	<b>9,736.27</b>
Total O&M for the First Year Dollars	2.0000	EA	6,018.40	0.00	0.00	1,504.60	2,213.27	9,736.27
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>86.5300</b>	<b>ACR</b>	<b>2,484,685.60</b>	<b>281,116.80</b>	<b>234,264.00</b>	<b>621,171.40</b>	<b>362,168.55</b>	<b>3,983,406.34</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>86.5300</b>	<b>ACR</b>	<b>509,082.02</b>	<b>61,089.84</b>	<b>50,908.20</b>	<b>127,270.51</b>	<b>67,351.55</b>	<b>815,702.13</b>
VEG REMOVAL ABOVE GROUND	86.5300	ACR	97,648.50	11,717.82	9,764.85	24,412.13	12,918.90	156,462.19
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	173.0600	ACR	411,433.52	49,372.02	41,143.35	102,858.38	54,432.66	659,239.93
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>86.5300</b>	<b>ACR</b>	<b>1,833,557.95</b>	<b>220,026.95</b>	<b>183,355.80</b>	<b>458,389.49</b>	<b>242,579.72</b>	<b>2,937,909.91</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>830,821.44</b>	<b>99,698.57</b>	<b>83,082.14</b>	<b>207,705.36</b>	<b>109,917.68</b>	<b>1,331,225.19</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2,595.9000	EA	324,426.06	38,931.13	32,442.61	81,106.51	42,921.57	519,827.87
Delivery - Cottonwood Trees	2,595.9000	EA	18,018.42	2,162.21	1,801.84	4,504.61	2,383.84	28,870.92
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	4,759.1500	EA	455,343.18	54,641.18	45,534.32	113,835.79	60,241.90	729,596.37
Delivery - Gooding's Willow Trees	4,759.1500	EA	33,033.78	3,964.05	3,303.38	8,258.44	4,370.37	52,930.02
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>551,658.63</b>	<b>66,199.04</b>	<b>55,165.86</b>	<b>137,914.66</b>	<b>72,984.44</b>	<b>883,922.62</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Shrubs	10,383.6000	EA	487,593.12	58,511.17	48,759.31	121,898.28	64,508.57	781,270.46
Delivery - Shrubs	10,383.6000	EA	64,065.51	7,687.86	6,406.55	16,016.38	8,475.87	102,652.16
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>17.3060</b>	<b>ACR</b>	<b>79,646.15</b>	<b>9,557.54</b>	<b>7,964.62</b>	<b>19,911.54</b>	<b>10,537.19</b>	<b>127,617.03</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	17.3060	ACR	79,646.15	9,557.54	7,964.62	19,911.54	10,537.19	127,617.03
<b>Watering</b>	<b>86.5300</b>	<b>ACR</b>	<b>371,431.73</b>	<b>44,571.81</b>	<b>37,143.17</b>	<b>92,857.93</b>	<b>49,140.42</b>	<b>595,145.06</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	432.6500	ACR	210,106.87	25,212.82	21,010.69	52,526.72	27,797.14	336,654.23
(Note: Water 5 times in the contract life.)								
Travel Time	865.3000	EA	161,324.87	19,358.98	16,132.49	40,331.22	21,343.28	258,490.83
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>142,045.62</b>	<b>0.00</b>	<b>0.00</b>	<b>35,511.41</b>	<b>52,237.28</b>	<b>229,794.31</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>47,348.54</b>	<b>0.00</b>	<b>0.00</b>	<b>11,837.14</b>	<b>17,412.43</b>	<b>76,598.11</b>
<b>Treat-Retreat-Reveg</b>	<b>4.0000</b>	<b>ACR</b>	<b>47,348.54</b>	<b>0.00</b>	<b>0.00</b>	<b>11,837.14</b>	<b>17,412.43</b>	<b>76,598.11</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>4.0000</b>	<b>ACR</b>	<b>12,036.80</b>	<b>0.00</b>	<b>0.00</b>	<b>3,009.20</b>	<b>4,426.53</b>	<b>19,472.54</b>
VEG REMOVAL ABOVE GROUND	4.0000	ACR	2,307.50	0.00	0.00	576.88	848.58	3,732.96
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	8.0000	ACR	9,729.30	0.00	0.00	2,432.33	3,577.95	15,739.58
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>4.0000</b>	<b>ACR</b>	<b>35,311.74</b>	<b>0.00</b>	<b>0.00</b>	<b>8,827.93</b>	<b>12,985.89</b>	<b>57,125.57</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>19,658.43</b>	<b>0.00</b>	<b>0.00</b>	<b>4,914.61</b>	<b>7,229.39</b>	<b>31,802.42</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	120.0000	EA	7,676.95	0.00	0.00	1,919.24	2,823.20	12,419.39
Delivery - Cottonwood Trees	120.0000	EA	426.02	0.00	0.00	106.51	156.67	689.20
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	220.0000	EA	10,774.41	0.00	0.00	2,693.60	3,962.29	17,430.31



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	220.0000	EA	781.04	0.00	0.00	195.26	287.23	1,263.52
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>13,050.58</b>	<b>0.00</b>	<b>0.00</b>	<b>3,262.64</b>	<b>4,799.35</b>	<b>21,112.57</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	480.0000	EA	11,535.83	0.00	0.00	2,883.96	4,242.30	18,662.10
Delivery - Shrubs	480.0000	EA	1,514.74	0.00	0.00	378.69	557.05	2,450.47
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.8000</b>	<b>ACR</b>	<b>2,354.51</b>	<b>0.00</b>	<b>0.00</b>	<b>588.63</b>	<b>865.87</b>	<b>3,809.00</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	1.0000	ACR	2,354.51	0.00	0.00	588.63	865.87	3,809.00
<b>Watering</b>	<b>4.0000</b>	<b>ACR</b>	<b>248.23</b>	<b>0.00</b>	<b>0.00</b>	<b>62.06</b>	<b>91.29</b>	<b>401.58</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	1.0000	ACR	248.23	0.00	0.00	62.06	91.29	401.58
(Note: Water 5 times in the contract life.)								
Travel Time	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>94,697.08</b>	<b>0.00</b>	<b>0.00</b>	<b>23,674.27</b>	<b>34,824.85</b>	<b>153,196.20</b>
Total O&M for the First Year Dollars	2.0000	EA	94,697.08	0.00	0.00	23,674.27	34,824.85	153,196.20
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Groundwater Channel</b>	<b>1.0300</b>	<b>ACR</b>	<b>70,651.15</b>	<b>8,478.14</b>	<b>7,065.11</b>	<b>17,662.79</b>	<b>9,347.15</b>	<b>113,204.34</b>
<b>Groundwater Channel</b>	<b>1,725.6462</b>	<b>LF</b>	<b>70,651.15</b>	<b>8,478.14</b>	<b>7,065.11</b>	<b>17,662.79</b>	<b>9,347.15</b>	<b>113,204.34</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>830.8667</b>	<b>LCY</b>	<b>15,795.03</b>	<b>1,895.40</b>	<b>1,579.50</b>	<b>3,948.76</b>	<b>2,089.68</b>	<b>25,308.38</b>
<b>Clearing</b>	<b>830.8667</b>	<b>LCY</b>	<b>3,735.04</b>	<b>448.21</b>	<b>373.50</b>	<b>933.76</b>	<b>494.15</b>	<b>5,984.66</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	831.0000	LCY	2,831.74	339.81	283.17	707.93	374.64	4,537.29
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>VEG REMOVAL ABOVE GROUND</b>	<b>1.0300</b>	<b>ACR</b>	<b>903.31</b>	<b>108.40</b>	<b>90.33</b>	<b>225.83</b>	<b>119.51</b>	<b>1,447.37</b>
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Haul Waste</b>	<b>955.4967</b>	<b>LCY</b>	<b>12,059.99</b>	<b>1,447.20</b>	<b>1,206.00</b>	<b>3,015.00</b>	<b>1,595.54</b>	<b>19,323.72</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	955.4967	LCY	12,059.99	1,447.20	1,206.00	3,015.00	1,595.54	19,323.72
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>4,601.7231</b>	<b>BCY</b>	<b>20,969.30</b>	<b>2,516.32</b>	<b>2,096.93</b>	<b>5,242.32</b>	<b>2,774.24</b>	<b>33,599.11</b>
Channel Excavation	4,601.7231	BCY	20,969.30	2,516.32	2,096.93	5,242.32	2,774.24	33,599.11
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Load/Handle Waste Material</b>	<b>5,291.9815</b>	<b>LCY</b>	<b>7,368.31</b>	<b>884.20</b>	<b>736.83</b>	<b>1,842.08</b>	<b>974.83</b>	<b>11,806.24</b>
Load Waste Material	5,291.9815	LCY	7,368.31	884.20	736.83	1,842.08	974.83	11,806.24
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>5,291.9815</b>	<b>LCY</b>	<b>21,778.21</b>	<b>2,613.39</b>	<b>2,177.82</b>	<b>5,444.55</b>	<b>2,881.26</b>	<b>34,895.23</b>
Haul Waste Material	5,291.9815	LCY	21,778.21	2,613.39	2,177.82	5,444.55	2,881.26	34,895.23
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>1,725.6462</b>	<b>LF</b>	<b>4,740.29</b>	<b>568.84</b>	<b>474.03</b>	<b>1,185.07</b>	<b>627.14</b>	<b>7,595.37</b>
<b>Seeding</b>	<b>1.0300</b>	<b>ACR</b>	<b>4,740.29</b>	<b>568.84</b>	<b>474.03</b>	<b>1,185.07</b>	<b>627.14</b>	<b>7,595.37</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	1.0300	ACR	4,740.29	568.84	474.03	1,185.07	627.14	7,595.37
<b>Wet Meadow (Water Feature)</b>	<b>3.5000</b>	<b>ACR</b>	<b>296,778.67</b>	<b>33,846.05</b>	<b>28,205.04</b>	<b>74,194.67</b>	<b>42,731.58</b>	<b>475,756.01</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>2,823.3333</b>	<b>LCY</b>	<b>53,670.89</b>	<b>6,440.51</b>	<b>5,367.09</b>	<b>13,417.72</b>	<b>7,100.66</b>	<b>85,996.87</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>2,823.3333</b>	<b>LCY</b>	<b>12,690.35</b>	<b>1,522.84</b>	<b>1,269.03</b>	<b>3,172.59</b>	<b>1,678.93</b>	<b>20,333.75</b>
VEG REMOVAL ABOVE GROUND	3.5000	ACR	3,069.48	368.34	306.95	767.37	406.09	4,918.23
Clearing Large Site	2,823.3333	LCY	9,620.87	1,154.50	962.09	2,405.22	1,272.84	15,415.51
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>3,246.8333</b>	<b>LCY</b>	<b>40,980.54</b>	<b>4,917.67</b>	<b>4,098.05</b>	<b>10,245.14</b>	<b>5,421.73</b>	<b>65,663.13</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load, Haul and Dispose	3,246.8333	LCY	40,980.54	4,917.67	4,098.05	10,245.14	5,421.73	65,663.13
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>16,940.0000</b>	<b>BCY</b>	<b>83,189.32</b>	<b>9,982.72</b>	<b>8,318.93</b>	<b>20,797.33</b>	<b>11,005.95</b>	<b>133,294.25</b>
Excavation, Random	16,940.0000	CY	83,189.32	9,982.72	8,318.93	20,797.33	11,005.95	133,294.25
<b>Rough Grading</b>	<b>16,940.0000</b>	<b>SY</b>	<b>8,388.96</b>	<b>1,006.68</b>	<b>838.90</b>	<b>2,097.24</b>	<b>1,109.86</b>	<b>13,441.63</b>
Rough Grading	16,940.0000	SY	8,388.96	1,006.68	838.90	2,097.24	1,109.86	13,441.63
<b>Compaction</b>	<b>5,647.0000</b>	<b>ECY</b>	<b>8,396.21</b>	<b>1,007.55</b>	<b>839.62</b>	<b>2,099.05</b>	<b>1,110.82</b>	<b>13,453.25</b>
Compaction	5,647.0000	ECY	8,396.21	1,007.55	839.62	2,099.05	1,110.82	13,453.25
<b>Load/Handle Waste Material</b>	<b>19,481.0000</b>	<b>LCY</b>	<b>27,124.45</b>	<b>3,254.93</b>	<b>2,712.44</b>	<b>6,781.11</b>	<b>3,588.56</b>	<b>43,461.50</b>
Load Waste Material	19,481.0000	LCY	27,124.45	3,254.93	2,712.44	6,781.11	3,588.56	43,461.50
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>19,481.0000</b>	<b>LCY</b>	<b>80,170.60</b>	<b>9,620.47</b>	<b>8,017.06</b>	<b>20,042.65</b>	<b>10,606.57</b>	<b>128,457.36</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	19,481.0000	LCY	80,170.60	9,620.47	8,017.06	20,042.65	10,606.57	128,457.36
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>3.5000</b>	<b>ACR</b>	<b>21,110.01</b>	<b>2,533.20</b>	<b>2,111.00</b>	<b>5,277.50</b>	<b>2,792.85</b>	<b>33,824.56</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>7,809.80</b>	<b>937.18</b>	<b>780.98</b>	<b>1,952.45</b>	<b>1,033.24</b>	<b>12,513.64</b>
<b>(Note: Assume 42 shrubs per acre.)</b>								
Shrubs	147.0000	EA	6,902.83	828.34	690.28	1,725.71	913.24	11,060.40
Delivery - Shrubs	147.0000	EA	906.97	108.84	90.70	226.74	119.99	1,453.24
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>13,300.21</b>	<b>1,596.02</b>	<b>1,330.02</b>	<b>3,325.05</b>	<b>1,759.62</b>	<b>21,310.92</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	3,500.0000	EA	11,079.05	1,329.49	1,107.91	2,769.76	1,465.76	17,751.97
Delivery - PLUGS	3,500.0000	EA	2,221.15	266.54	222.12	555.29	293.86	3,558.96
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>14,728.23</b>	<b>0.00</b>	<b>0.00</b>	<b>3,682.06</b>	<b>5,416.31</b>	<b>23,826.59</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,909.41</b>	<b>0.00</b>	<b>0.00</b>	<b>1,227.35</b>	<b>1,805.43</b>	<b>7,942.19</b>
<b>Treat-Retreat-Reveg</b>	<b>1.0000</b>	<b>ACR</b>	<b>4,909.41</b>	<b>0.00</b>	<b>0.00</b>	<b>1,227.35</b>	<b>1,805.43</b>	<b>7,942.19</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.0000</b>	<b>ACR</b>	<b>3,009.20</b>	<b>0.00</b>	<b>0.00</b>	<b>752.30</b>	<b>1,106.63</b>	<b>4,868.14</b>
VEG REMOVAL ABOVE GROUND	1.0000	ACR	576.88	0.00	0.00	144.22	212.15	933.24
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	2.0000	ACR	2,432.33	0.00	0.00	608.08	894.49	3,934.90
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.1750</b>	<b>ACR</b>	<b>1,900.21</b>	<b>0.00</b>	<b>0.00</b>	<b>475.05</b>	<b>698.80</b>	<b>3,074.06</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>862.87</b>	<b>0.00</b>	<b>0.00</b>	<b>215.72</b>	<b>317.32</b>	<b>1,395.91</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	5.0000	EA	319.87	0.00	0.00	79.97	117.63	517.47
Delivery - Cottonwood Trees	5.0000	EA	17.75	0.00	0.00	4.44	6.53	28.72
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	10.0000	EA	489.75	0.00	0.00	122.44	180.10	792.29
Delivery - Gooding's Willow Trees	10.0000	EA	35.50	0.00	0.00	8.88	13.06	57.43
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>570.96</b>	<b>0.00</b>	<b>0.00</b>	<b>142.74</b>	<b>209.97</b>	<b>923.67</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	21.0000	EA	504.69	0.00	0.00	126.17	185.60	816.47
Delivery - Shrubs	21.0000	EA	66.27	0.00	0.00	16.57	24.37	107.21
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0350</b>	<b>ACR</b>	<b>82.41</b>	<b>0.00</b>	<b>0.00</b>	<b>20.60</b>	<b>30.31</b>	<b>133.32</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0350	ACR	82.41	0.00	0.00	20.60	30.31	133.32
<b>Watering</b>	<b>0.1750</b>	<b>ACR</b>	<b>383.96</b>	<b>0.00</b>	<b>0.00</b>	<b>95.99</b>	<b>141.20</b>	<b>621.16</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.8750	ACR	217.20	0.00	0.00	54.30	79.88	351.38
(Note: Water 5 times in the contract life.)								
Travel Time	1.7500	EA	166.76	0.00	0.00	41.69	61.33	269.78
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>9,818.82</b>	<b>0.00</b>	<b>0.00</b>	<b>2,454.71</b>	<b>3,610.87</b>	<b>15,884.40</b>
Total O&M for the First Year Dollars	2.0000	EA	9,818.82	0.00	0.00	2,454.71	3,610.87	15,884.40
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>49,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,375.00</b>	<b>18,203.63</b>	<b>80,078.63</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	49,500.00	0.00	0.00	12,375.00	18,203.63	80,078.63
(Note: This cost was provided by the environmental section. The cost totaled \$4,950.00 per year for a total of 10 years =)								
<b>Project ID #2</b>	<b>1.0000</b>	<b>LS</b>	<b>471,321.23</b>	<b>47,767.63</b>	<b>39,806.36</b>	<b>117,830.31</b>	<b>79,604.32</b>	<b>756,329.85</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>471,321.23</b>	<b>47,767.63</b>	<b>39,806.36</b>	<b>117,830.31</b>	<b>79,604.32</b>	<b>756,329.85</b>
<b>Bank Destabilization (Terrace Lowering)</b>	<b>0.8000</b>	<b>ACR</b>	<b>77,861.79</b>	<b>9,300.08</b>	<b>7,750.07</b>	<b>19,465.45</b>	<b>10,386.14</b>	<b>124,763.53</b>
<b>(Note: Assume three levels with 1.5' drop between levels. Therefore, weighted average depth of 2.25' from existing grade.)</b>								
<b>Vegetation Removal</b>	<b>645.3333</b>	<b>LCY</b>	<b>12,264.81</b>	<b>1,471.78</b>	<b>1,226.48</b>	<b>3,066.20</b>	<b>1,622.63</b>	<b>19,651.91</b>
<b>Clearing</b>	<b>645.3333</b>	<b>LCY</b>	<b>2,899.52</b>	<b>347.94</b>	<b>289.95</b>	<b>724.88</b>	<b>383.61</b>	<b>4,645.89</b>
Clearing Large Site	645.0000	LCY	2,197.92	263.75	219.79	549.48	290.78	3,521.73
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	0.8000	ACR	701.60	84.19	70.16	175.40	92.82	1,124.17
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>742.1333</b>	<b>LCY</b>	<b>9,365.30</b>	<b>1,123.84</b>	<b>936.53</b>	<b>2,341.32</b>	<b>1,239.03</b>	<b>15,006.02</b>
Load, Haul and Dispose	742.0000	LCY	9,365.30	1,123.84	936.53	2,341.32	1,239.03	15,006.02
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>2,904.0000</b>	<b>BCY</b>	<b>11,767.59</b>	<b>1,412.11</b>	<b>1,176.76</b>	<b>2,941.90</b>	<b>1,556.85</b>	<b>18,855.21</b>
Excavation, Random	2,904.0000	BCY	11,767.59	1,412.11	1,176.76	2,941.90	1,556.85	18,855.21
(Note: 150 BCY excavated per hour (75 BCY each Dozer) x 1.15 swell = 175 LCY per hour. Keep Excavation in BCY per hour. Swell occurs in the loading and hauling.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Rough Grading</b>	<b>3,872.0000</b>	<b>SY</b>	<b>1,438.11</b>	<b>172.57</b>	<b>143.81</b>	<b>359.53</b>	<b>190.26</b>	<b>2,304.28</b>
Rough Grading	3,872.0000	SY	1,438.11	172.57	143.81	359.53	190.26	2,304.28
<b>Compaction</b>	<b>1,290.6667</b>	<b>ECY</b>	<b>2,833.53</b>	<b>340.02</b>	<b>283.35</b>	<b>708.38</b>	<b>374.88</b>	<b>4,540.17</b>
Compaction	1,290.6667	ECY	2,833.53	340.02	283.35	708.38	374.88	4,540.17
<b>Load/Handle Waste Material</b>	<b>3,339.6000</b>	<b>LCY</b>	<b>6,874.25</b>	<b>824.91</b>	<b>687.43</b>	<b>1,718.56</b>	<b>909.46</b>	<b>11,014.61</b>
Load Waste Material	3,339.6000	LCY	6,874.25	824.91	687.43	1,718.56	909.46	11,014.61
(Note: Controlled by hauling at 175 LCY per hour)								
<b>Haul Waste Material</b>	<b>3,339.6000</b>	<b>LCY</b>	<b>14,450.34</b>	<b>1,734.04</b>	<b>1,445.03</b>	<b>3,612.59</b>	<b>1,911.78</b>	<b>23,153.78</b>
Haul Waste Material	3,339.6000	LCY	14,450.34	1,734.04	1,445.03	3,612.59	1,911.78	23,153.78
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 4 trucks = 175 lcy/hr, which is in sync with the excavation rate of (150 x 1.15 swell = aprox 175 lcy).)								
<b>Revegetation</b>	<b>0.8000</b>	<b>ACR</b>	<b>27,872.04</b>	<b>3,344.65</b>	<b>2,787.20</b>	<b>6,968.01</b>	<b>3,687.47</b>	<b>44,659.37</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>22,468.84</b>	<b>2,696.26</b>	<b>2,246.88</b>	<b>5,617.21</b>	<b>2,972.63</b>	<b>36,001.82</b>
(Note: Coyote Willow is every 9 sf, but only on the top Terrace (or 30% of the total Destabilization area). Goodings Willow Trees 38 trees per acre.)								
Coyote Willows	1,291.0000	EA	17,073.43	2,048.81	1,707.34	4,268.36	2,258.82	27,356.76
Delivery - Coyote Willows	1,291.0000	EA	2,275.80	273.10	227.58	568.95	301.09	3,646.52
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	30.4000	EA	2,908.59	349.03	290.86	727.15	384.81	4,660.44
Delivery - Gooding's Willow Trees	30.4000	EA	211.01	25.32	21.10	52.75	27.92	338.10
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,785.10</b>	<b>214.21</b>	<b>178.51</b>	<b>446.27</b>	<b>236.17</b>	<b>2,860.26</b>
(Note: Shrub planting is for 42 per acre.)								
Shrubs	33.6000	EA	1,577.79	189.33	157.78	394.45	208.74	2,528.09
Delivery - Shrubs	33.6000	EA	207.31	24.88	20.73	51.83	27.43	332.17
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0400</b>	<b>ACR</b>	<b>184.09</b>	<b>22.09</b>	<b>18.41</b>	<b>46.02</b>	<b>24.35</b>	<b>294.97</b>
(Note: Seeding is only required outside of the terrace area for construction disturbance, seeding is applied at 5% of the terrace area.)								
Hydro-Seeding	0.0400	ACR	184.09	22.09	18.41	46.02	24.35	294.97

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Watering</b>	<b>0.8000</b>	<b>ACR</b>	<b>3,434.02</b>	<b>412.08</b>	<b>343.40</b>	<b>858.50</b>	<b>454.32</b>	<b>5,502.32</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	4.0000	ACR	1,942.51	233.10	194.25	485.63	256.99	3,112.49
Travel Time	8.0000	EA	1,491.50	178.98	149.15	372.88	197.33	2,389.84
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>361.11</b>	<b>0.00</b>	<b>0.00</b>	<b>90.28</b>	<b>132.80</b>	<b>584.18</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>120.37</b>	<b>0.00</b>	<b>0.00</b>	<b>30.09</b>	<b>44.27</b>	<b>194.73</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0400</b>	<b>ACR</b>	<b>120.37</b>	<b>0.00</b>	<b>0.00</b>	<b>30.09</b>	<b>44.27</b>	<b>194.73</b>
VEG REMOVAL ABOVE GROUND	0.0400	ACR	23.08	0.00	0.00	5.77	8.49	37.33
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.0800	ACR	97.29	0.00	0.00	24.32	35.78	157.40
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>240.74</b>	<b>0.00</b>	<b>0.00</b>	<b>60.19</b>	<b>88.53</b>	<b>389.46</b>
Total O&M for the First Year Dollars	2.0000	EA	240.74	0.00	0.00	60.19	88.53	389.46
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>1.7300</b>	<b>ACR</b>	<b>272,919.23</b>	<b>30,662.94</b>	<b>25,552.45</b>	<b>68,229.81</b>	<b>40,202.81</b>	<b>437,567.23</b>
<b>High Flow Channel</b>	<b>2,898.4154</b>	<b>LF</b>	<b>272,919.23</b>	<b>30,662.94</b>	<b>25,552.45</b>	<b>68,229.81</b>	<b>40,202.81</b>	<b>437,567.23</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>1,395.5333</b>	<b>LCY</b>	<b>26,530.35</b>	<b>3,183.64</b>	<b>2,653.03</b>	<b>6,632.59</b>	<b>3,509.96</b>	<b>42,509.57</b>
<b>Clearing</b>	<b>1,395.5333</b>	<b>LCY</b>	<b>6,274.25</b>	<b>752.91</b>	<b>627.42</b>	<b>1,568.56</b>	<b>830.08</b>	<b>10,053.23</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	1,396.0000	LCY	4,757.05	570.85	475.70	1,189.26	629.36	7,622.22
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	1.7300	ACR	1,517.20	182.06	151.72	379.30	200.73	2,431.01
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>1,604.8633</b>	<b>LCY</b>	<b>20,256.10</b>	<b>2,430.73</b>	<b>2,025.61</b>	<b>5,064.02</b>	<b>2,679.88</b>	<b>32,456.35</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	1,604.8633	LCY	20,256.10	2,430.73	2,025.61	5,064.02	2,679.88	32,456.35
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>7,729.1077</b>	<b>BCY</b>	<b>35,220.28</b>	<b>4,226.43</b>	<b>3,522.03</b>	<b>8,805.07</b>	<b>4,659.64</b>	<b>56,433.45</b>
Channel Excavation	7,729.1077	BCY	35,220.28	4,226.43	3,522.03	8,805.07	4,659.64	56,433.45
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>9,017.2923</b>	<b>SY</b>	<b>10,305.02</b>	<b>1,236.60</b>	<b>1,030.50</b>	<b>2,576.25</b>	<b>1,363.35</b>	<b>16,511.73</b>
Rough Grading	9,017.2923	SY	10,305.02	1,236.60	1,030.50	2,576.25	1,363.35	16,511.73
<b>Compaction</b>	<b>3,005.7641</b>	<b>ECY</b>	<b>8,893.15</b>	<b>1,067.18</b>	<b>889.31</b>	<b>2,223.29</b>	<b>1,176.56</b>	<b>14,249.49</b>
Compaction	3,006.0000	ECY	8,893.15	1,067.18	889.31	2,223.29	1,176.56	14,249.49
<b>Load/Handle Waste Material</b>	<b>8,888.4738</b>	<b>LCY</b>	<b>12,375.90</b>	<b>1,485.11</b>	<b>1,237.59</b>	<b>3,093.98</b>	<b>1,637.33</b>	<b>19,829.91</b>
Load Waste Material	8,888.4738	LCY	12,375.90	1,485.11	1,237.59	3,093.98	1,637.33	19,829.91
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>8,888.4738</b>	<b>LCY</b>	<b>36,578.94</b>	<b>4,389.47</b>	<b>3,657.89</b>	<b>9,144.73</b>	<b>4,839.39</b>	<b>58,610.43</b>
Haul Waste Material	8,888.4738	LCY	36,578.94	4,389.47	3,657.89	9,144.73	4,839.39	58,610.43
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>2,898.4154</b>	<b>LF</b>	<b>125,620.84</b>	<b>15,074.50</b>	<b>12,562.08</b>	<b>31,405.21</b>	<b>16,619.64</b>	<b>201,282.26</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>97,037.73</b>	<b>11,644.53</b>	<b>9,703.77</b>	<b>24,259.43</b>	<b>12,838.09</b>	<b>155,483.55</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	116.0000	EA	14,497.25	1,739.67	1,449.73	3,624.31	1,917.99	23,228.95
Delivery - Cottonwood Trees	116.0000	EA	805.17	96.62	80.52	201.29	106.52	1,290.12
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	3,865.0000	EA	51,114.50	6,133.74	5,111.45	12,778.63	6,762.45	81,900.77
Delivery - Coyote Willows	3,865.0000	EA	6,813.30	817.60	681.33	1,703.33	901.40	10,916.96
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	232.0000	EA	22,197.16	2,663.66	2,219.72	5,549.29	2,936.68	35,566.51



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	232.0000	EA	1,610.34	193.24	161.03	402.58	213.05	2,580.24
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>10,894.26</b>	<b>1,307.31</b>	<b>1,089.43</b>	<b>2,723.56</b>	<b>1,441.31</b>	<b>17,455.87</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	232.0000	EA	10,894.26	1,307.31	1,089.43	2,723.56	1,441.31	17,455.87
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.7300</b>	<b>ACR</b>	<b>7,961.85</b>	<b>955.42</b>	<b>796.19</b>	<b>1,990.46</b>	<b>1,053.35</b>	<b>12,757.28</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	1.7300	ACR	7,961.85	955.42	796.19	1,990.46	1,053.35	12,757.28
<b>Watering</b>	<b>1.7300</b>	<b>ACR</b>	<b>7,426.06</b>	<b>891.13</b>	<b>742.61</b>	<b>1,856.51</b>	<b>982.47</b>	<b>11,898.77</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	8.6500	ACR	4,200.68	504.08	420.07	1,050.17	555.75	6,730.75
Travel Time	17.3000	EA	3,225.38	387.05	322.54	806.34	426.72	5,168.02
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>2,300.94</b>	<b>276.11</b>	<b>230.09</b>	<b>575.23</b>	<b>304.41</b>	<b>3,686.79</b>
PLUGS	605.5000	EA	1,916.68	230.00	191.67	479.17	253.58	3,071.09
Delivery - PLUGS	605.5000	EA	384.26	46.11	38.43	96.06	50.84	615.70
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>17,394.76</b>	<b>0.00</b>	<b>0.00</b>	<b>4,348.69</b>	<b>6,396.92</b>	<b>28,140.38</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1 Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,697.38</b>	<b>0.00</b>	<b>0.00</b>	<b>2,174.35</b>	<b>3,198.46</b>	<b>14,070.19</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>2,147.4000</b>	<b>BCY</b>	<b>6,435.41</b>	<b>0.00</b>	<b>0.00</b>	<b>1,608.85</b>	<b>2,366.62</b>	<b>10,410.88</b>
Channel Excavation	2,147.4000	BCY	6,435.41	0.00	0.00	1,608.85	2,366.62	10,410.88
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 2,899' * 10'(wide) * 2' (deep)/27 = 2,147.40 BCY.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>2,470.0000</b>	<b>LCY</b>	<b>2,261.97</b>	<b>0.00</b>	<b>0.00</b>	<b>565.49</b>	<b>831.84</b>	<b>3,659.31</b>
Load Waste Material	2,470.0000	LCY	2,261.97	0.00	0.00	565.49	831.84	3,659.31
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,697.38</b>	<b>0.00</b>	<b>0.00</b>	<b>2,174.35</b>	<b>3,198.46</b>	<b>14,070.19</b>
Total O&M for the First Year Dollars	1.0000	EA	8,697.38	0.00	0.00	2,174.35	3,198.46	14,070.19
(Note: This will happen once every five years for a total of two times in 10 years.)								
<b>Divert outfall flows - Grading Only</b>	<b>18.0900</b>	<b>ACR</b>	<b>71,040.22</b>	<b>7,804.61</b>	<b>6,503.84</b>	<b>17,760.05</b>	<b>10,811.74</b>	<b>113,920.47</b>
<b>Site Grading only</b>	<b>87,555.6000</b>	<b>SY</b>	<b>65,038.42</b>	<b>7,804.61</b>	<b>6,503.84</b>	<b>16,259.60</b>	<b>8,604.58</b>	<b>104,211.05</b>
Grading at Outfall - Divert Flows	87,555.6000	SY	65,038.42	7,804.61	6,503.84	16,259.60	8,604.58	104,211.05
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>6,001.80</b>	<b>0.00</b>	<b>0.00</b>	<b>1,500.45</b>	<b>2,207.16</b>	<b>9,709.41</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
<b>O&amp;M (1 year) cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,000.90</b>	<b>0.00</b>	<b>0.00</b>	<b>750.22</b>	<b>1,103.58</b>	<b>4,854.71</b>
(Note: Per H&H this will be performed once every 5 years. This work will be performed 2 times in the 10 years.)								
<b>Channel Excavation</b>	<b>741.0000</b>	<b>BCY</b>	<b>2,220.66</b>	<b>0.00</b>	<b>0.00</b>	<b>555.16</b>	<b>816.65</b>	<b>3,592.47</b>
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 1,000' * 10'(wide) * 2' (deep)/27 = 740.74 BCY.)								
Channel Excavation	741.0000	BCY	2,220.66	0.00	0.00	555.16	816.65	3,592.47
<b>Load/Handle Waste Material</b>	<b>852.0000</b>	<b>LCY</b>	<b>780.24</b>	<b>0.00</b>	<b>0.00</b>	<b>195.06</b>	<b>286.93</b>	<b>1,262.24</b>
Load Waste Material	852.0000	LCY	780.24	0.00	0.00	195.06	286.93	1,262.24
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,000.90</b>	<b>0.00</b>	<b>0.00</b>	<b>750.23</b>	<b>1,103.58</b>	<b>4,854.71</b>
Total O&M for the First Year Dollars	1.0000	EA	3,000.90	0.00	0.00	750.23	1,103.58	4,854.71
(Note: This will happen once every five years for a total of two times in 10 years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>49,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>12,375.00</b>	<b>18,203.63</b>	<b>80,078.63</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
Annual Site Assessment Cost	10.0000	YR	49,500.00	0.00	0.00	12,375.00	18,203.63	80,078.63
(Note: This cost was provided by the environmental section. The cost totaled \$4,950.00 per year for a total of 10 years =)								
<b>Project ID #3</b>	<b>1.0000</b>	<b>LS</b>	<b>9,619,324.94</b>	<b>1,107,088.53</b>	<b>922,573.78</b>	<b>2,404,831.24</b>	<b>1,365,306.79</b>	<b>15,419,125.27</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>9,619,324.94</b>	<b>1,107,088.53</b>	<b>922,573.78</b>	<b>2,404,831.24</b>	<b>1,365,306.79</b>	<b>15,419,125.27</b>
<b>Swale</b>	<b>14.4900</b>	<b>ACR</b>	<b>2,338,819.27</b>	<b>279,816.24</b>	<b>233,180.20</b>	<b>584,704.82</b>	<b>311,078.01</b>	<b>3,747,598.53</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>11,688.6000</b>	<b>LCY</b>	<b>222,197.50</b>	<b>26,663.70</b>	<b>22,219.75</b>	<b>55,549.38</b>	<b>29,396.73</b>	<b>356,027.06</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>11,688.6000</b>	<b>LCY</b>	<b>52,538.05</b>	<b>6,304.57</b>	<b>5,253.80</b>	<b>13,134.51</b>	<b>6,950.78</b>	<b>84,181.72</b>
VEG REMOVAL ABOVE GROUND	14.4900	ACR	12,707.66	1,524.92	1,270.77	3,176.92	1,681.22	20,361.49
Clearing Large Site	11,688.6000	LCY	39,830.38	4,779.65	3,983.04	9,957.60	5,269.56	63,820.22
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>13,441.8900</b>	<b>LCY</b>	<b>169,659.46</b>	<b>20,359.13</b>	<b>16,965.95</b>	<b>42,414.86</b>	<b>22,445.95</b>	<b>271,845.35</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	13,441.8900	LCY	169,659.46	20,359.13	16,965.95	42,414.86	22,445.95	271,845.35
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>70,131.6000</b>	<b>BCY</b>	<b>344,403.79</b>	<b>41,328.45</b>	<b>34,440.38</b>	<b>86,100.95</b>	<b>45,564.62</b>	<b>551,838.19</b>
Excavation, Random	70,131.6000	CY	344,403.79	41,328.45	34,440.38	86,100.95	45,564.62	551,838.19
<b>Rough Grading</b>	<b>70,131.6000</b>	<b>SY</b>	<b>34,730.30</b>	<b>4,167.64</b>	<b>3,473.03</b>	<b>8,682.57</b>	<b>4,594.82</b>	<b>55,648.36</b>
Rough Grading	70,131.6000	SY	34,730.30	4,167.64	3,473.03	8,682.57	4,594.82	55,648.36
<b>Compaction</b>	<b>23,377.2000</b>	<b>ECY</b>	<b>34,758.26</b>	<b>4,170.99</b>	<b>3,475.83</b>	<b>8,689.57</b>	<b>4,598.52</b>	<b>55,693.16</b>
Compaction	23,377.2000	ECY	34,758.26	4,170.99	3,475.83	8,689.57	4,598.52	55,693.16
<b>Load/Handle Waste Material</b>	<b>80,651.3400</b>	<b>LCY</b>	<b>112,295.20</b>	<b>13,475.42</b>	<b>11,229.52</b>	<b>28,073.80</b>	<b>14,856.66</b>	<b>179,930.60</b>
Load Waste Material	80,651.3400	LCY	112,295.20	13,475.42	11,229.52	28,073.80	14,856.66	179,930.60
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
<b>Haul Waste Material</b>	<b>80,651.3400</b>	<b>LCY</b>	<b>331,906.30</b>	<b>39,828.76</b>	<b>33,190.63</b>	<b>82,976.57</b>	<b>43,911.20</b>	<b>531,813.46</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	80,651.3400	LCY	331,906.30	39,828.76	33,190.63	82,976.57	43,911.20	531,813.46
<b>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</b>								
<b>Revegetation</b>	<b>14.4900</b>	<b>ACR</b>	<b>1,251,510.62</b>	<b>150,181.27</b>	<b>125,151.06</b>	<b>312,877.66</b>	<b>165,574.86</b>	<b>2,005,295.47</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,184,509.60</b>	<b>142,141.15</b>	<b>118,450.96</b>	<b>296,127.40</b>	<b>156,710.62</b>	<b>1,897,939.73</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	391.2300	EA	48,894.49	5,867.34	4,889.45	12,223.62	6,468.74	78,343.64
Delivery - Cottonwood Trees	391.2300	EA	2,715.57	325.87	271.56	678.89	359.27	4,351.16
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	70,131.6000	EA	927,488.23	111,298.59	92,748.82	231,872.06	122,706.69	1,486,114.39
Delivery - Coyote Willows	70,131.6000	EA	123,629.48	14,835.54	12,362.95	30,907.37	16,356.18	198,091.51
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	796.9500	EA	76,250.12	9,150.01	7,625.01	19,062.53	10,087.89	122,175.56
Delivery - Gooding's Willow Trees	796.9500	EA	5,531.72	663.81	553.17	1,382.93	731.85	8,863.47
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>47,729.02</b>	<b>5,727.48</b>	<b>4,772.90</b>	<b>11,932.26</b>	<b>6,314.55</b>	<b>76,476.21</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	898.3800	EA	42,186.13	5,062.34	4,218.61	10,546.53	5,581.23	67,594.84
Delivery - Shrubs	898.3800	EA	5,542.89	665.15	554.29	1,385.72	733.32	8,881.38
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>19,272.00</b>	<b>2,312.64</b>	<b>1,927.20</b>	<b>4,818.00</b>	<b>2,549.69</b>	<b>30,879.53</b>
PLUGS	5,071.5000	EA	16,053.55	1,926.43	1,605.35	4,013.39	2,123.88	25,722.60
Delivery - PLUGS	5,071.5000	EA	3,218.45	386.21	321.85	804.61	425.80	5,156.93
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>7,017.30</b>	<b>0.00</b>	<b>0.00</b>	<b>1,754.32</b>	<b>2,580.61</b>	<b>11,352.23</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,339.10</b>	<b>0.00</b>	<b>0.00</b>	<b>584.77</b>	<b>860.20</b>	<b>3,784.07</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.7245</b>	<b>ACR</b>	<b>2,339.10</b>	<b>0.00</b>	<b>0.00</b>	<b>584.77</b>	<b>860.20</b>	<b>3,784.07</b>
VEG REMOVAL ABOVE GROUND	1.0000	ACR	576.88	0.00	0.00	144.22	212.15	933.24

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	1.4490	ACR	1,762.22	0.00	0.00	440.56	648.06	2,850.83
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,678.20</b>	<b>0.00</b>	<b>0.00</b>	<b>1,169.55</b>	<b>1,720.41</b>	<b>7,568.16</b>
Total O&M for the First Year Dollars	2.0000	EA	4,678.20	0.00	0.00	1,169.55	1,720.41	7,568.16
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>133.0700</b>	<b>ACR</b>	<b>3,835,119.11</b>	<b>432,314.95</b>	<b>360,262.45</b>	<b>958,779.78</b>	<b>562,127.10</b>	<b>6,148,603.39</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>133.0700</b>	<b>ACR</b>	<b>782,890.85</b>	<b>93,946.90</b>	<b>78,289.08</b>	<b>195,722.71</b>	<b>103,576.46</b>	<b>1,254,426.00</b>
VEG REMOVAL ABOVE GROUND	133.0700	ACR	150,168.57	18,020.23	15,016.86	37,542.14	19,867.30	240,615.10
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	266.1400	ACR	632,722.28	75,926.67	63,272.23	158,180.57	83,709.16	1,013,810.91
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>133.0700</b>	<b>ACR</b>	<b>2,819,733.70</b>	<b>338,368.04</b>	<b>281,973.37</b>	<b>704,933.42</b>	<b>373,050.77</b>	<b>4,518,059.30</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,277,677.21</b>	<b>153,321.26</b>	<b>127,767.72</b>	<b>319,419.30</b>	<b>169,036.69</b>	<b>2,047,222.19</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	3,992.1000	EA	498,918.01	59,870.16	49,891.80	124,729.50	66,006.85	799,416.33
Delivery - Cottonwood Trees	3,992.1000	EA	27,709.60	3,325.15	2,770.96	6,927.40	3,665.98	44,399.09
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	7,318.8500	EA	700,248.66	84,029.84	70,024.87	175,062.17	92,642.90	1,122,008.43
Delivery - Gooding's Willow Trees	7,318.8500	EA	50,800.93	6,096.11	5,080.09	12,700.23	6,720.96	81,398.34
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>848,367.20</b>	<b>101,804.06</b>	<b>84,836.72</b>	<b>212,091.80</b>	<b>112,238.98</b>	<b>1,359,338.77</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	15,968.4000	EA	749,844.18	89,981.30	74,984.42	187,461.04	99,204.38	1,201,475.33
Delivery - Shrubs	15,968.4000	EA	98,523.02	11,822.76	9,852.30	24,630.76	13,034.60	157,863.44
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>26.6140</b>	<b>ACR</b>	<b>122,483.69</b>	<b>14,698.04</b>	<b>12,248.37</b>	<b>30,620.92</b>	<b>16,204.59</b>	<b>196,255.61</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Hydro-Seeding	26.6140	ACR	122,483.69	14,698.04	12,248.37	30,620.92	16,204.59	196,255.61
<b>Watering</b>	<b>133.0700</b>	<b>ACR</b>	<b>571,205.60</b>	<b>68,544.67</b>	<b>57,120.56</b>	<b>142,801.40</b>	<b>75,570.50</b>	<b>915,242.73</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	665.3500	ACR	323,112.45	38,773.49	32,311.25	80,778.11	42,747.78	517,723.08
(Note: Water 5 times in the contract life.)								
Travel Time	1,330.7000	EA	248,093.15	29,771.18	24,809.31	62,023.29	32,822.72	397,519.65
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>232,494.57</b>	<b>0.00</b>	<b>0.00</b>	<b>58,123.64</b>	<b>85,499.88</b>	<b>376,118.08</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>77,498.19</b>	<b>0.00</b>	<b>0.00</b>	<b>19,374.55</b>	<b>28,499.96</b>	<b>125,372.69</b>
<b>Treat-Retreat-Reveg</b>	<b>6.6535</b>	<b>ACR</b>	<b>77,498.19</b>	<b>0.00</b>	<b>0.00</b>	<b>19,374.55</b>	<b>28,499.96</b>	<b>125,372.69</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>6.6535</b>	<b>ACR</b>	<b>20,221.61</b>	<b>0.00</b>	<b>0.00</b>	<b>5,055.40</b>	<b>7,436.50</b>	<b>32,713.51</b>
VEG REMOVAL ABOVE GROUND	7.0000	ACR	4,038.13	0.00	0.00	1,009.53	1,485.02	6,532.68
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	13.3070	ACR	16,183.48	0.00	0.00	4,045.87	5,951.48	26,180.83
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>6.6535</b>	<b>ACR</b>	<b>57,276.58</b>	<b>0.00</b>	<b>0.00</b>	<b>14,319.14</b>	<b>21,063.46</b>	<b>92,659.19</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>32,729.03</b>	<b>0.00</b>	<b>0.00</b>	<b>8,182.26</b>	<b>12,036.10</b>	<b>52,947.39</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	200.0000	EA	12,794.92	0.00	0.00	3,198.73	4,705.33	20,698.99
Delivery - Cottonwood Trees	200.0000	EA	710.03	0.00	0.00	177.51	261.12	1,148.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	366.0000	EA	17,924.71	0.00	0.00	4,481.18	6,591.81	28,997.70
Delivery - Gooding's Willow Trees	366.0000	EA	1,299.36	0.00	0.00	324.84	477.84	2,102.05
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>21,696.58</b>	<b>0.00</b>	<b>0.00</b>	<b>5,424.15</b>	<b>7,978.92</b>	<b>35,099.64</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	798.0000	EA	19,178.32	0.00	0.00	4,794.58	7,052.83	31,025.74

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Shrubs	798.0000	EA	2,518.26	0.00	0.00	629.56	926.09	4,073.91
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.3307</b>	<b>ACR</b>	<b>2,354.51</b>	<b>0.00</b>	<b>0.00</b>	<b>588.63</b>	<b>865.87</b>	<b>3,809.00</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	1.0000	ACR	2,354.51	0.00	0.00	588.63	865.87	3,809.00
<b>Watering</b>	<b>6.6535</b>	<b>ACR</b>	<b>496.46</b>	<b>0.00</b>	<b>0.00</b>	<b>124.12</b>	<b>182.57</b>	<b>803.15</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.0000	ACR	496.46	0.00	0.00	124.12	182.57	803.15
(Note: Water 5 times in the contract life.)								
Travel Time	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>154,996.38</b>	<b>0.00</b>	<b>0.00</b>	<b>38,749.10</b>	<b>56,999.92</b>	<b>250,745.39</b>
Total O&M for the First Year Dollars	2.0000	EA	154,996.38	0.00	0.00	38,749.10	56,999.92	250,745.39
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Bank Destabilization (Terrace Lowering)</b>	<b>23.6700</b>	<b>ACR</b>	<b>2,303,361.92</b>	<b>275,159.44</b>	<b>229,299.53</b>	<b>575,840.48</b>	<b>307,175.60</b>	<b>3,690,836.97</b>
<b>(Note: Assume three levels with 1.5' drop between levels. Therefore, weighted average depth of 2.25' from existing grade.)</b>								
<b>Vegetation Removal</b>	<b>19,093.8000</b>	<b>LCY</b>	<b>362,970.92</b>	<b>43,556.51</b>	<b>36,297.09</b>	<b>90,742.73</b>	<b>48,021.05</b>	<b>581,588.30</b>
<b>Clearing</b>	<b>19,093.8000</b>	<b>LCY</b>	<b>85,823.70</b>	<b>10,298.84</b>	<b>8,582.37</b>	<b>21,455.93</b>	<b>11,354.48</b>	<b>137,515.32</b>
Clearing Large Site	19,094.0000	LCY	65,065.22	7,807.83	6,506.52	16,266.31	8,608.13	104,254.00
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	23.6700	ACR	20,758.48	2,491.02	2,075.85	5,189.62	2,746.35	33,261.32
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>21,957.8700</b>	<b>LCY</b>	<b>277,147.21</b>	<b>33,257.67</b>	<b>27,714.72</b>	<b>69,286.80</b>	<b>36,666.58</b>	<b>444,072.98</b>
Load, Haul and Dispose	21,958.0000	LCY	277,147.21	33,257.67	27,714.72	69,286.80	36,666.58	444,072.98
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>85,922.1000</b>	<b>BCY</b>	<b>348,173.64</b>	<b>41,780.84</b>	<b>34,817.36</b>	<b>87,043.41</b>	<b>46,063.37</b>	<b>557,878.63</b>
Excavation, Random	85,922.1000	BCY	348,173.64	41,780.84	34,817.36	87,043.41	46,063.37	557,878.63
(Note: 150 BCY excavated per hour (75 BCY each Dozer) x 1.15 swell = 175 LCY per hour. Keep Excavation in BCY per hour. Swell occurs in the loading and hauling.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Rough Grading</b>	<b>114,562.8000</b>	<b>SY</b>	<b>42,550.01</b>	<b>5,106.00</b>	<b>4,255.00</b>	<b>10,637.50</b>	<b>5,629.37</b>	<b>68,177.88</b>
Rough Grading	114,562.8000	SY	42,550.01	5,106.00	4,255.00	10,637.50	5,629.37	68,177.88
<b>Compaction</b>	<b>38,187.6000</b>	<b>ECY</b>	<b>83,837.16</b>	<b>10,060.46</b>	<b>8,383.72</b>	<b>20,959.29</b>	<b>11,091.66</b>	<b>134,332.28</b>
Compaction	38,187.6000	ECY	83,837.16	10,060.46	8,383.72	20,959.29	11,091.66	134,332.28
<b>Load/Handle Waste Material</b>	<b>98,810.4150</b>	<b>LCY</b>	<b>203,391.89</b>	<b>24,407.03</b>	<b>20,339.19</b>	<b>50,847.97</b>	<b>26,908.75</b>	<b>325,894.82</b>
Load Waste Material	98,810.4150	LCY	203,391.89	24,407.03	20,339.19	50,847.97	26,908.75	325,894.82
(Note: Controlled by hauling at 175 LCY per hour)								
<b>Haul Waste Material</b>	<b>98,810.4150</b>	<b>LCY</b>	<b>427,549.50</b>	<b>51,305.94</b>	<b>42,754.95</b>	<b>106,887.38</b>	<b>56,564.80</b>	<b>685,062.57</b>
Haul Waste Material	98,810.4150	LCY	427,549.50	51,305.94	42,754.95	106,887.38	56,564.80	685,062.57
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 4 trucks = 175 lcy/hr, which is in sync with the excavation rate of (150 x 1.15 swell = aprox 175 lcy).)								
<b>Revegetation</b>	<b>23.6700</b>	<b>ACR</b>	<b>824,522.22</b>	<b>98,942.67</b>	<b>82,452.22</b>	<b>206,130.55</b>	<b>109,084.29</b>	<b>1,321,131.95</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>664,654.99</b>	<b>79,758.60</b>	<b>66,465.50</b>	<b>166,163.75</b>	<b>87,933.86</b>	<b>1,064,976.69</b>
(Note: Coyote Willow is every 9 sf, but only on the top Terrace (or 30% of the total Destabilization area). Goodings Willow Trees 38 trees per acre.)								
Coyote Willows	38,188.0000	EA	505,035.11	60,604.21	50,503.51	126,258.78	66,816.15	809,217.76
Delivery - Coyote Willows	38,188.0000	EA	67,318.62	8,078.23	6,731.86	16,829.65	8,906.25	107,864.62
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	899.4600	EA	86,058.01	10,326.96	8,605.80	21,514.50	11,385.47	137,890.75
Delivery - Gooding's Willow Trees	899.4600	EA	6,243.25	749.19	624.32	1,560.81	825.98	10,003.56
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>52,816.55</b>	<b>6,337.99</b>	<b>5,281.65</b>	<b>13,204.14</b>	<b>6,987.63</b>	<b>84,627.96</b>
(Note: Shrub planting is for 42 per acre.)								
Shrubs	994.1400	EA	46,682.83	5,601.94	4,668.28	11,670.71	6,176.14	74,799.90
Delivery - Shrubs	994.1400	EA	6,133.72	736.05	613.37	1,533.43	811.49	9,828.06
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.1835</b>	<b>ACR</b>	<b>5,446.74</b>	<b>653.61</b>	<b>544.67</b>	<b>1,361.68</b>	<b>720.60</b>	<b>8,727.31</b>
(Note: Seeding is only required outside of the terrace area for construction disturbance, seeding is applied at 5% of the terrace area.)								
Hydro-Seeding	1.1835	ACR	5,446.74	653.61	544.67	1,361.68	720.60	8,727.31



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Watering</b>	<b>23.6700</b>	<b>ACR</b>	<b>101,603.94</b>	<b>12,192.47</b>	<b>10,160.39</b>	<b>25,400.99</b>	<b>13,442.20</b>	<b>162,800.00</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	118.3500	ACR	57,474.05	6,896.89	5,747.40	14,368.51	7,603.82	92,090.67
Travel Time	236.7000	EA	44,129.89	5,295.59	4,412.99	11,032.47	5,838.38	70,709.33
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>10,366.59</b>	<b>0.00</b>	<b>0.00</b>	<b>2,591.65</b>	<b>3,812.31</b>	<b>16,770.56</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,455.53</b>	<b>0.00</b>	<b>0.00</b>	<b>863.88</b>	<b>1,270.77</b>	<b>5,590.19</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.1835</b>	<b>ACR</b>	<b>3,455.53</b>	<b>0.00</b>	<b>0.00</b>	<b>863.88</b>	<b>1,270.77</b>	<b>5,590.19</b>
VEG REMOVAL ABOVE GROUND	1.0000	ACR	576.88	0.00	0.00	144.22	212.15	933.24
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	2.3670	ACR	2,878.66	0.00	0.00	719.66	1,058.63	4,656.95
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>6,911.06</b>	<b>0.00</b>	<b>0.00</b>	<b>1,727.77</b>	<b>2,541.54</b>	<b>11,180.37</b>
Total O&M for the First Year Dollars	2.0000	EA	6,911.06	0.00	0.00	1,727.77	2,541.54	11,180.37
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>6.7600</b>	<b>ACR</b>	<b>1,066,274.64</b>	<b>119,797.91</b>	<b>99,831.59</b>	<b>266,568.66</b>	<b>157,069.01</b>	<b>1,709,541.82</b>
<b>High Flow Channel</b>	<b>11,325.6000</b>	<b>LF</b>	<b>1,066,274.64</b>	<b>119,797.91</b>	<b>99,831.59</b>	<b>266,568.66</b>	<b>157,069.01</b>	<b>1,709,541.82</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>5,453.0667</b>	<b>LCY</b>	<b>103,661.27</b>	<b>12,439.35</b>	<b>10,366.13</b>	<b>25,915.32</b>	<b>13,714.39</b>	<b>166,096.46</b>
<b>Clearing</b>	<b>5,453.0667</b>	<b>LCY</b>	<b>24,510.28</b>	<b>2,941.23</b>	<b>2,451.03</b>	<b>6,127.57</b>	<b>3,242.71</b>	<b>39,272.82</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	5,453.0000	LCY	18,581.79	2,229.81	1,858.18	4,645.45	2,458.37	29,773.60
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	6.7600	ACR	5,928.49	711.42	592.85	1,482.12	784.34	9,499.22
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>6,271.0267</b>	<b>LCY</b>	<b>79,151.00</b>	<b>9,498.12</b>	<b>7,915.10</b>	<b>19,787.75</b>	<b>10,471.68</b>	<b>126,823.64</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	6,271.0267	LCY	79,151.00	9,498.12	7,915.10	19,787.75	10,471.68	126,823.64
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>30,201.6000</b>	<b>BCY</b>	<b>137,623.75</b>	<b>16,514.85</b>	<b>13,762.37</b>	<b>34,405.94</b>	<b>18,207.62</b>	<b>220,514.53</b>
Channel Excavation	30,201.6000	BCY	137,623.75	16,514.85	13,762.37	34,405.94	18,207.62	220,514.53
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>35,235.2000</b>	<b>SY</b>	<b>40,267.01</b>	<b>4,832.04</b>	<b>4,026.70</b>	<b>10,066.75</b>	<b>5,327.33</b>	<b>64,519.83</b>
Rough Grading	35,235.2000	SY	40,267.01	4,832.04	4,026.70	10,066.75	5,327.33	64,519.83
<b>Compaction</b>	<b>11,745.0667</b>	<b>ECY</b>	<b>34,747.17</b>	<b>4,169.66</b>	<b>3,474.72</b>	<b>8,686.79</b>	<b>4,597.05</b>	<b>55,675.40</b>
Compaction	11,745.0000	ECY	34,747.17	4,169.66	3,474.72	8,686.79	4,597.05	55,675.40
<b>Load/Handle Waste Material</b>	<b>34,731.8400</b>	<b>LCY</b>	<b>48,359.01</b>	<b>5,803.08</b>	<b>4,835.90</b>	<b>12,089.75</b>	<b>6,397.90</b>	<b>77,485.64</b>
Load Waste Material	34,731.8400	LCY	48,359.01	5,803.08	4,835.90	12,089.75	6,397.90	77,485.64
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>34,731.8400</b>	<b>LCY</b>	<b>142,932.73</b>	<b>17,151.93</b>	<b>14,293.27</b>	<b>35,733.18</b>	<b>18,910.00</b>	<b>229,021.12</b>
Haul Waste Material	34,731.8400	LCY	142,932.73	17,151.93	14,293.27	35,733.18	18,910.00	229,021.12
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>11,325.6000</b>	<b>LF</b>	<b>490,724.99</b>	<b>58,887.00</b>	<b>49,072.50</b>	<b>122,681.25</b>	<b>64,922.92</b>	<b>786,288.65</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>379,061.60</b>	<b>45,487.39</b>	<b>37,906.16</b>	<b>94,765.40</b>	<b>50,149.85</b>	<b>607,370.41</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	453.0000	EA	56,614.28	6,793.71	5,661.43	14,153.57	7,490.07	90,713.06
Delivery - Cottonwood Trees	453.0000	EA	3,144.32	377.32	314.43	786.08	415.99	5,038.15
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	15,101.0000	EA	199,710.25	23,965.23	19,971.03	49,927.56	26,421.67	319,995.74
Delivery - Coyote Willows	15,101.0000	EA	26,620.36	3,194.44	2,662.04	6,655.09	3,521.87	42,653.81
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	906.0000	EA	86,683.74	10,402.05	8,668.37	21,670.93	11,468.26	138,893.36

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	906.0000	EA	6,288.64	754.64	628.86	1,572.16	831.99	10,076.30
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>42,543.95</b>	<b>5,105.27</b>	<b>4,254.40</b>	<b>10,635.99</b>	<b>5,628.56</b>	<b>68,168.17</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	906.0000	EA	42,543.95	5,105.27	4,254.40	10,635.99	5,628.56	68,168.17
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>6.7600</b>	<b>ACR</b>	<b>31,111.06</b>	<b>3,733.33</b>	<b>3,111.11</b>	<b>7,777.76</b>	<b>4,115.99</b>	<b>49,849.25</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	6.7600	ACR	31,111.06	3,733.33	3,111.11	7,777.76	4,115.99	49,849.25
<b>Watering</b>	<b>6.7600</b>	<b>ACR</b>	<b>29,017.43</b>	<b>3,482.09</b>	<b>2,901.74</b>	<b>7,254.36</b>	<b>3,839.01</b>	<b>46,494.63</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	33.8000	ACR	16,414.22	1,969.71	1,641.42	4,103.55	2,171.60	26,300.50
Travel Time	67.6000	EA	12,603.21	1,512.39	1,260.32	3,150.80	1,667.41	20,194.13
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>8,990.94</b>	<b>1,078.91</b>	<b>899.09</b>	<b>2,247.74</b>	<b>1,189.50</b>	<b>14,406.18</b>
PLUGS	2,366.0000	EA	7,489.44	898.73	748.94	1,872.36	990.85	12,000.33
Delivery - PLUGS	2,366.0000	EA	1,501.50	180.18	150.15	375.38	198.65	2,405.85
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>67,958.70</b>	<b>0.00</b>	<b>0.00</b>	<b>16,989.68</b>	<b>24,991.81</b>	<b>109,940.19</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1 Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>33,979.35</b>	<b>0.00</b>	<b>0.00</b>	<b>8,494.84</b>	<b>12,495.91</b>	<b>54,970.10</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>8,390.0000</b>	<b>BCY</b>	<b>25,143.46</b>	<b>0.00</b>	<b>0.00</b>	<b>6,285.87</b>	<b>9,246.51</b>	<b>40,675.84</b>
<b>(Note: Excavation is estimtated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 11,325.6' * 10'(wide) * 2' (deep)/27 = 8,389.33 BCY.)</b>								
Channel Excavation	8,390.0000	BCY	25,143.46	0.00	0.00	6,285.87	9,246.51	40,675.84

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>9,648.5000</b>	<b>LCY</b>	<b>8,835.89</b>	<b>0.00</b>	<b>0.00</b>	<b>2,208.97</b>	<b>3,249.40</b>	<b>14,294.26</b>
Load Waste Material	9,648.5000	LCY	8,835.89	0.00	0.00	2,208.97	3,249.40	14,294.26
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>33,979.35</b>	<b>0.00</b>	<b>0.00</b>	<b>8,494.84</b>	<b>12,495.91</b>	<b>54,970.09</b>
Total O&M for the First Year Dollars	1.0000	EA	33,979.35	0.00	0.00	8,494.84	12,495.91	54,970.09
(Note: This will happen once every five years for a total of two times in 10 years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>75,750.00</b>	<b>0.00</b>	<b>0.00</b>	<b>18,937.50</b>	<b>27,857.06</b>	<b>122,544.56</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	75,750.00	0.00	0.00	18,937.50	27,857.06	122,544.56
(Note: This cost was provided by the environmental section. The cost totaled \$7,575.00 per year for a total of 10 years =)								
<b>Project ID #4</b>	<b>1.0000</b>	<b>LS</b>	<b>968,063.27</b>	<b>102,770.87</b>	<b>85,642.39</b>	<b>242,015.82</b>	<b>154,360.27</b>	<b>1,552,852.61</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>968,063.27</b>	<b>102,770.87</b>	<b>85,642.39</b>	<b>242,015.82</b>	<b>154,360.27</b>	<b>1,552,852.61</b>
<b>Treat-Retreat-Reveg</b>	<b>14.2800</b>	<b>ACR</b>	<b>416,627.82</b>	<b>46,392.56</b>	<b>38,660.46</b>	<b>104,156.96</b>	<b>62,188.82</b>	<b>668,026.62</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>14.2800</b>	<b>ACR</b>	<b>84,013.54</b>	<b>10,081.62</b>	<b>8,401.35</b>	<b>21,003.38</b>	<b>11,114.99</b>	<b>134,614.89</b>
VEG REMOVAL ABOVE GROUND	14.2800	ACR	16,114.88	1,933.79	1,611.49	4,028.72	2,132.00	25,820.87
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	28.5600	ACR	67,898.66	8,147.84	6,789.87	16,974.66	8,982.99	108,794.02
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>14.2800</b>	<b>ACR</b>	<b>302,591.10</b>	<b>36,310.93</b>	<b>30,259.11</b>	<b>75,647.77</b>	<b>40,032.80</b>	<b>484,841.71</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>137,110.02</b>	<b>16,453.20</b>	<b>13,711.00</b>	<b>34,277.51</b>	<b>18,139.66</b>	<b>219,691.39</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	428.4000	EA	53,539.86	6,424.78	5,353.99	13,384.97	7,083.32	85,786.92
Delivery - Cottonwood Trees	428.4000	EA	2,973.57	356.83	297.36	743.39	393.40	4,764.55
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	785.4000	EA	75,145.04	9,017.41	7,514.50	18,786.26	9,941.69	120,404.90
Delivery - Gooding's Willow Trees	785.4000	EA	5,451.55	654.19	545.15	1,362.89	721.24	8,735.01
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>91,039.93</b>	<b>10,924.79</b>	<b>9,103.99</b>	<b>22,759.98</b>	<b>12,044.58</b>	<b>145,873.28</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	1,713.6000	EA	80,467.23	9,656.07	8,046.72	20,116.81	10,645.82	128,932.65
Delivery - Shrubs	1,713.6000	EA	10,572.70	1,268.72	1,057.27	2,643.17	1,398.77	16,940.63
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>2.8560</b>	<b>ACR</b>	<b>13,143.96</b>	<b>1,577.28</b>	<b>1,314.40</b>	<b>3,285.99</b>	<b>1,738.95</b>	<b>21,060.57</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	2.8560	ACR	13,143.96	1,577.28	1,314.40	3,285.99	1,738.95	21,060.57
<b>Watering</b>	<b>14.2800</b>	<b>ACR</b>	<b>61,297.18</b>	<b>7,355.66</b>	<b>6,129.72</b>	<b>15,324.30</b>	<b>8,109.62</b>	<b>98,216.47</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	71.4000	ACR	34,673.82	4,160.86	3,467.38	8,668.46	4,587.35	55,557.87
(Note: Water 5 times in the contract life.)								
Travel Time	142.8000	EA	26,623.36	3,194.80	2,662.34	6,655.84	3,522.27	42,658.60
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>30,023.19</b>	<b>0.00</b>	<b>0.00</b>	<b>7,505.80</b>	<b>11,041.03</b>	<b>48,570.01</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,007.73</b>	<b>0.00</b>	<b>0.00</b>	<b>2,501.93</b>	<b>3,680.34</b>	<b>16,190.00</b>
<b>Treat-Retreat-Reveg</b>	<b>0.7140</b>	<b>ACR</b>	<b>10,007.73</b>	<b>0.00</b>	<b>0.00</b>	<b>2,501.93</b>	<b>3,680.34</b>	<b>16,190.00</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.7140</b>	<b>ACR</b>	<b>2,313.56</b>	<b>0.00</b>	<b>0.00</b>	<b>578.39</b>	<b>850.81</b>	<b>3,742.76</b>
VEG REMOVAL ABOVE GROUND	1.0000	ACR	576.88	0.00	0.00	144.22	212.15	933.24
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	1.4280	ACR	1,736.68	0.00	0.00	434.17	638.66	2,809.52
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.7140</b>	<b>ACR</b>	<b>7,694.17</b>	<b>0.00</b>	<b>0.00</b>	<b>1,923.54</b>	<b>2,829.53</b>	<b>12,447.25</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,466.49</b>	<b>0.00</b>	<b>0.00</b>	<b>866.62</b>	<b>1,274.80</b>	<b>5,607.91</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	21.0000	EA	1,343.47	0.00	0.00	335.87	494.06	2,173.39
Delivery - Cottonwood Trees	21.0000	EA	74.55	0.00	0.00	18.64	27.42	120.61
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Gooding's Willows	39.0000	EA	1,910.01	0.00	0.00	477.50	702.41	3,089.92
Delivery - Gooding's Willow Trees	39.0000	EA	138.46	0.00	0.00	34.61	50.92	223.99
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>2,338.23</b>	<b>0.00</b>	<b>0.00</b>	<b>584.56</b>	<b>859.88</b>	<b>3,782.67</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	86.0000	EA	2,066.84	0.00	0.00	516.71	760.08	3,343.63
Delivery - Shrubs	86.0000	EA	271.39	0.00	0.00	67.85	99.80	439.04
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.1428</b>	<b>ACR</b>	<b>336.22</b>	<b>0.00</b>	<b>0.00</b>	<b>84.06</b>	<b>123.65</b>	<b>543.93</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.1428	ACR	336.22	0.00	0.00	84.06	123.65	543.93
<b>Watering</b>	<b>0.7140</b>	<b>ACR</b>	<b>1,553.23</b>	<b>0.00</b>	<b>0.00</b>	<b>388.31</b>	<b>571.20</b>	<b>2,512.74</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	3.5700	ACR	886.19	0.00	0.00	221.55	325.89	1,433.63
(Note: Water 5 times in the contract life.)								
Travel Time	7.0000	EA	667.05	0.00	0.00	166.76	245.31	1,079.12
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,015.46</b>	<b>0.00</b>	<b>0.00</b>	<b>5,003.87</b>	<b>7,360.69</b>	<b>32,380.01</b>
Total O&M for the First Year Dollars	2.0000	EA	20,015.46	0.00	0.00	5,003.87	7,360.69	32,380.01
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wetland (Water Feature)</b>	<b>2.8300</b>	<b>ACR</b>	<b>475,685.45</b>	<b>56,378.31</b>	<b>46,981.92</b>	<b>118,921.36</b>	<b>64,314.38</b>	<b>762,281.43</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>2,282.8667</b>	<b>LCY</b>	<b>43,396.75</b>	<b>5,207.61</b>	<b>4,339.68</b>	<b>10,849.19</b>	<b>5,741.39</b>	<b>69,534.62</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>2,282.8667</b>	<b>LCY</b>	<b>10,261.05</b>	<b>1,231.33</b>	<b>1,026.11</b>	<b>2,565.26</b>	<b>1,357.54</b>	<b>16,441.29</b>
VEG REMOVAL ABOVE GROUND	2.8300	ACR	2,481.90	297.83	248.19	620.47	328.36	3,976.74
Clearing Large Site	2,282.8667	LCY	7,779.16	933.50	777.92	1,944.79	1,029.18	12,464.54
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>2,625.2967</b>	<b>LCY</b>	<b>33,135.70</b>	<b>3,976.28</b>	<b>3,313.57</b>	<b>8,283.92</b>	<b>4,383.85</b>	<b>53,093.33</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	2,625.2967	LCY	33,135.70	3,976.28	3,313.57	8,283.92	4,383.85	53,093.33
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>22,828.6667</b>	<b>BCY</b>	<b>112,107.51</b>	<b>13,452.90</b>	<b>11,210.75</b>	<b>28,026.88</b>	<b>14,831.82</b>	<b>179,629.87</b>
Excavation, Random	22,828.6667	CY	112,107.51	13,452.90	11,210.75	28,026.88	14,831.82	179,629.87
<b>Rough Grading</b>	<b>13,697.2000</b>	<b>SY</b>	<b>6,783.07</b>	<b>813.97</b>	<b>678.31</b>	<b>1,695.77</b>	<b>897.40</b>	<b>10,868.52</b>
Rough Grading	13,697.2000	SY	6,783.07	813.97	678.31	1,695.77	897.40	10,868.52
<b>Compaction</b>	<b>4,565.7333</b>	<b>ECY</b>	<b>6,788.54</b>	<b>814.62</b>	<b>678.85</b>	<b>1,697.13</b>	<b>898.12</b>	<b>10,877.27</b>
Compaction	4,565.7333	ECY	6,788.54	814.62	678.85	1,697.13	898.12	10,877.27
<b>Load/Handle Waste Material</b>	<b>26,252.9667</b>	<b>LCY</b>	<b>36,553.42</b>	<b>4,386.41</b>	<b>3,655.34</b>	<b>9,138.35</b>	<b>4,836.02</b>	<b>58,569.54</b>
Load Waste Material	26,252.9667	LCY	36,553.42	4,386.41	3,655.34	9,138.35	4,836.02	58,569.54
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>26,252.9667</b>	<b>LCY</b>	<b>108,039.43</b>	<b>12,964.73</b>	<b>10,803.94</b>	<b>27,009.86</b>	<b>14,293.62</b>	<b>173,111.58</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	26,252.9667	LCY	108,039.43	12,964.73	10,803.94	27,009.86	14,293.62	173,111.58
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>2.8300</b>	<b>ACR</b>	<b>156,150.52</b>	<b>18,738.06</b>	<b>15,615.05</b>	<b>39,037.63</b>	<b>20,658.71</b>	<b>250,199.98</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>156,150.52</b>	<b>18,738.06</b>	<b>15,615.05</b>	<b>39,037.63</b>	<b>20,658.71</b>	<b>250,199.98</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	41,091.6000	EA	130,073.15	15,608.78	13,007.32	32,518.29	17,208.68	208,416.21
Delivery - PLUGS	41,091.6000	EA	26,077.37	3,129.28	2,607.74	6,519.34	3,450.04	41,783.77
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>5,866.20</b>	<b>0.00</b>	<b>0.00</b>	<b>1,466.55</b>	<b>2,157.30</b>	<b>9,490.05</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,955.40</b>	<b>0.00</b>	<b>0.00</b>	<b>488.85</b>	<b>719.10</b>	<b>3,163.35</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Treat-Retreat-Reveg</b>	<b>0.1415</b>	<b>ACR</b>	<b>1,955.40</b>	<b>0.00</b>	<b>0.00</b>	<b>488.85</b>	<b>719.10</b>	<b>3,163.35</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1415</b>	<b>ACR</b>	<b>425.80</b>	<b>0.00</b>	<b>0.00</b>	<b>106.45</b>	<b>156.59</b>	<b>688.84</b>
VEG REMOVAL ABOVE GROUND	0.1415	ACR	81.63	0.00	0.00	20.41	30.02	132.05
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.2830	ACR	344.17	0.00	0.00	86.04	126.57	556.79
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.1415</b>	<b>ACR</b>	<b>1,529.60</b>	<b>0.00</b>	<b>0.00</b>	<b>382.40</b>	<b>562.51</b>	<b>2,474.51</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>690.30</b>	<b>0.00</b>	<b>0.00</b>	<b>172.57</b>	<b>253.86</b>	<b>1,116.73</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	4.0000	EA	255.90	0.00	0.00	63.97	94.11	413.98
Delivery - Cottonwood Trees	4.0000	EA	14.20	0.00	0.00	3.55	5.22	22.97
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	8.0000	EA	391.80	0.00	0.00	97.95	144.08	633.83
Delivery - Gooding's Willow Trees	8.0000	EA	28.40	0.00	0.00	7.10	10.44	45.95
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>462.21</b>	<b>0.00</b>	<b>0.00</b>	<b>115.55</b>	<b>169.98</b>	<b>747.74</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	17.0000	EA	408.56	0.00	0.00	102.14	150.25	660.95
Delivery - Shrubs	17.0000	EA	53.65	0.00	0.00	13.41	19.73	86.79
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0283</b>	<b>ACR</b>	<b>66.63</b>	<b>0.00</b>	<b>0.00</b>	<b>16.66</b>	<b>24.50</b>	<b>107.79</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0283	ACR	66.63	0.00	0.00	16.66	24.50	107.79
<b>Watering</b>	<b>0.1415</b>	<b>ACR</b>	<b>310.46</b>	<b>0.00</b>	<b>0.00</b>	<b>77.62</b>	<b>114.17</b>	<b>502.25</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.7075	ACR	175.62	0.00	0.00	43.91	64.59	284.12
(Note: Water 5 times in the contract life.)								
Travel Time	1.4150	EA	134.84	0.00	0.00	33.71	49.59	218.14



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,910.80</b>	<b>0.00</b>	<b>0.00</b>	<b>977.70</b>	<b>1,438.20</b>	<b>6,326.70</b>
Total O&M for the First Year Dollars	2.0000	EA	3,910.80	0.00	0.00	977.70	1,438.20	6,326.70
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>75,750.00</b>	<b>0.00</b>	<b>0.00</b>	<b>18,937.50</b>	<b>27,857.06</b>	<b>122,544.56</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	75,750.00	0.00	0.00	18,937.50	27,857.06	122,544.56
(Note: This cost was provided by the environmental section. The cost totaled \$7,575.00 per year for a total of 10 years =)								
<b>Project ID #5</b>	<b>1.0000</b>	<b>LS</b>	<b>3,664,299.51</b>	<b>412,144.34</b>	<b>343,453.62</b>	<b>916,074.88</b>	<b>538,884.60</b>	<b>5,874,856.94</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>3,664,299.51</b>	<b>412,144.34</b>	<b>343,453.62</b>	<b>916,074.88</b>	<b>538,884.60</b>	<b>5,874,856.94</b>
<b>Swale</b>	<b>4.8200</b>	<b>ACR</b>	<b>777,833.73</b>	<b>93,078.97</b>	<b>77,565.81</b>	<b>194,458.43</b>	<b>103,419.66</b>	<b>1,246,356.60</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>3,888.1333</b>	<b>LCY</b>	<b>73,912.49</b>	<b>8,869.50</b>	<b>7,391.25</b>	<b>18,478.12</b>	<b>9,778.62</b>	<b>118,429.98</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>3,888.1333</b>	<b>LCY</b>	<b>17,476.42</b>	<b>2,097.17</b>	<b>1,747.64</b>	<b>4,369.11</b>	<b>2,312.13</b>	<b>28,002.48</b>
VEG REMOVAL ABOVE GROUND	4.8200	ACR	4,227.12	507.25	422.71	1,056.78	559.25	6,773.11
Clearing Large Site	3,888.1333	LCY	13,249.31	1,589.92	1,324.93	3,312.33	1,752.88	21,229.36
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>4,471.3533</b>	<b>LCY</b>	<b>56,436.06</b>	<b>6,772.33</b>	<b>5,643.61</b>	<b>14,109.02</b>	<b>7,466.49</b>	<b>90,427.51</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	4,471.3533	LCY	56,436.06	6,772.33	5,643.61	14,109.02	7,466.49	90,427.51
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>23,328.8000</b>	<b>BCY</b>	<b>114,563.58</b>	<b>13,747.63</b>	<b>11,456.36</b>	<b>28,640.89</b>	<b>15,156.76</b>	<b>183,565.22</b>
Excavation, Random	23,328.8000	CY	114,563.58	13,747.63	11,456.36	28,640.89	15,156.76	183,565.22
<b>Rough Grading</b>	<b>23,328.8000</b>	<b>SY</b>	<b>11,552.80</b>	<b>1,386.34</b>	<b>1,155.28</b>	<b>2,888.20</b>	<b>1,528.44</b>	<b>18,511.05</b>
Rough Grading	23,328.8000	SY	11,552.80	1,386.34	1,155.28	2,888.20	1,528.44	18,511.05
<b>Compaction</b>	<b>7,776.2667</b>	<b>ECY</b>	<b>11,562.10</b>	<b>1,387.45</b>	<b>1,156.21</b>	<b>2,890.52</b>	<b>1,529.67</b>	<b>18,525.95</b>
Compaction	7,776.2667	ECY	11,562.10	1,387.45	1,156.21	2,890.52	1,529.67	18,525.95

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>26,828.1200</b>	<b>LCY</b>	<b>37,354.24</b>	<b>4,482.51</b>	<b>3,735.42</b>	<b>9,338.56</b>	<b>4,941.97</b>	<b>59,852.69</b>
Load Waste Material	26,828.1200	LCY	37,354.24	4,482.51	3,735.42	9,338.56	4,941.97	59,852.69
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>26,828.1200</b>	<b>LCY</b>	<b>110,406.37</b>	<b>13,248.76</b>	<b>11,040.64</b>	<b>27,601.59</b>	<b>14,606.76</b>	<b>176,904.13</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	26,828.1200	LCY	110,406.37	13,248.76	11,040.64	27,601.59	14,606.76	176,904.13
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>4.8200</b>	<b>ACR</b>	<b>416,306.50</b>	<b>49,956.78</b>	<b>41,630.65</b>	<b>104,076.63</b>	<b>55,077.35</b>	<b>667,047.91</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>394,019.07</b>	<b>47,282.29</b>	<b>39,401.91</b>	<b>98,504.77</b>	<b>52,128.72</b>	<b>631,336.75</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	130.1400	EA	16,264.42	1,951.73	1,626.44	4,066.10	2,151.78	26,060.48
Delivery - Cottonwood Trees	130.1400	EA	903.32	108.40	90.33	225.83	119.51	1,447.38
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	23,328.8000	EA	308,522.65	37,022.72	30,852.27	77,130.66	40,817.55	494,345.85
Delivery - Coyote Willows	23,328.8000	EA	41,124.50	4,934.94	4,112.45	10,281.13	5,440.77	65,893.79
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	265.1000	EA	25,364.08	3,043.69	2,536.41	6,341.02	3,355.67	40,640.87
Delivery - Gooding's Willow Trees	265.1000	EA	1,840.09	220.81	184.01	460.02	243.44	2,948.37
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>15,876.73</b>	<b>1,905.21</b>	<b>1,587.67</b>	<b>3,969.18</b>	<b>2,100.49</b>	<b>25,439.29</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	298.8400	EA	14,032.93	1,683.95	1,403.29	3,508.23	1,856.56	22,484.96
Delivery - Shrubs	298.8400	EA	1,843.81	221.26	184.38	460.95	243.94	2,954.33
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>6,410.70</b>	<b>769.28</b>	<b>641.07</b>	<b>1,602.68</b>	<b>848.14</b>	<b>10,271.87</b>
PLUGS	1,687.0000	EA	5,340.10	640.81	534.01	1,335.03	706.50	8,556.45

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - PLUGS	1,687.0000	EA	1,070.60	128.47	107.06	267.65	141.64	1,715.42
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,175.66</b>	<b>0.00</b>	<b>0.00</b>	<b>543.91</b>	<b>800.10</b>	<b>3,519.67</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>725.22</b>	<b>0.00</b>	<b>0.00</b>	<b>181.30</b>	<b>266.70</b>	<b>1,173.22</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.2410</b>	<b>ACR</b>	<b>725.22</b>	<b>0.00</b>	<b>0.00</b>	<b>181.30</b>	<b>266.70</b>	<b>1,173.22</b>
VEG REMOVAL ABOVE GROUND	0.2410	ACR	139.03	0.00	0.00	34.76	51.13	224.91
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.4820	ACR	586.19	0.00	0.00	146.55	215.57	948.31
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,450.44</b>	<b>0.00</b>	<b>0.00</b>	<b>362.61</b>	<b>533.40</b>	<b>2,346.45</b>
Total O&M for the First Year Dollars	2.0000	EA	1,450.44	0.00	0.00	362.61	533.40	2,346.45
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>56.0400</b>	<b>ACR</b>	<b>1,633,565.63</b>	<b>182,061.54</b>	<b>151,717.95</b>	<b>408,391.41</b>	<b>243,523.84</b>	<b>2,619,260.37</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>56.0400</b>	<b>ACR</b>	<b>329,700.18</b>	<b>39,564.02</b>	<b>32,970.02</b>	<b>82,425.05</b>	<b>43,619.33</b>	<b>528,278.60</b>
VEG REMOVAL ABOVE GROUND	56.0400	ACR	63,240.75	7,588.89	6,324.07	15,810.19	8,366.75	101,330.65
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	112.0800	ACR	266,459.43	31,975.13	26,645.94	66,614.86	35,252.58	426,947.95
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>56.0400</b>	<b>ACR</b>	<b>1,187,479.34</b>	<b>142,497.52</b>	<b>118,747.93</b>	<b>296,869.84</b>	<b>157,103.52</b>	<b>1,902,698.15</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>538,070.42</b>	<b>64,568.45</b>	<b>53,807.04</b>	<b>134,517.60</b>	<b>71,186.72</b>	<b>862,150.23</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,681.2000	EA	210,110.21	25,213.23	21,011.02	52,527.55	27,797.58	336,659.59
Delivery - Cottonwood Trees	1,681.2000	EA	11,669.39	1,400.33	1,166.94	2,917.35	1,543.86	18,697.87
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	3,082.2000	EA	294,896.93	35,387.63	29,489.69	73,724.23	39,014.86	472,513.36
Delivery - Gooding's Willow Trees	3,082.2000	EA	21,393.89	2,567.27	2,139.39	5,348.47	2,830.41	34,279.42

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>357,274.35</b>	<b>42,872.92</b>	<b>35,727.44</b>	<b>89,318.59</b>	<b>47,267.40</b>	<b>572,460.69</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	6,724.8000	EA	315,783.18	37,893.98	31,578.32	78,945.80	41,778.11	505,979.39
Delivery - Shrubs	6,724.8000	EA	41,491.17	4,978.94	4,149.12	10,372.79	5,489.28	66,481.30
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>11.2080</b>	<b>ACR</b>	<b>51,581.77</b>	<b>6,189.81</b>	<b>5,158.18</b>	<b>12,895.44</b>	<b>6,824.27</b>	<b>82,649.47</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	11.2080	ACR	51,581.77	6,189.81	5,158.18	12,895.44	6,824.27	82,649.47
<b>Watering</b>	<b>56.0400</b>	<b>ACR</b>	<b>240,552.80</b>	<b>28,866.34</b>	<b>24,055.28</b>	<b>60,138.20</b>	<b>31,825.14</b>	<b>385,437.76</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	280.2000	ACR	136,072.91	16,328.75	13,607.29	34,018.23	18,002.45	218,029.62
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	560.4000	EA	104,479.90	12,537.59	10,447.99	26,119.97	13,822.69	167,408.14
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>116,386.11</b>	<b>0.00</b>	<b>0.00</b>	<b>29,096.53</b>	<b>42,800.99</b>	<b>188,283.62</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>38,795.37</b>	<b>0.00</b>	<b>0.00</b>	<b>9,698.84</b>	<b>14,267.00</b>	<b>62,761.20</b>
<b>Treat-Retreat-Reveg</b>	<b>2.8020</b>	<b>ACR</b>	<b>38,795.37</b>	<b>0.00</b>	<b>0.00</b>	<b>9,698.84</b>	<b>14,267.00</b>	<b>62,761.20</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>2.8020</b>	<b>ACR</b>	<b>8,431.78</b>	<b>0.00</b>	<b>0.00</b>	<b>2,107.95</b>	<b>3,100.79</b>	<b>13,640.52</b>
VEG REMOVAL ABOVE GROUND	2.8020	ACR	1,616.40	0.00	0.00	404.10	594.43	2,614.94
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	5.6040	ACR	6,815.38	0.00	0.00	1,703.84	2,506.36	11,025.58
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>2.8020</b>	<b>ACR</b>	<b>30,363.58</b>	<b>0.00</b>	<b>0.00</b>	<b>7,590.90</b>	<b>11,166.21</b>	<b>49,120.69</b>
<b>Tree Plantings</b>	<b>2.8020</b>	<b>ACR</b>	<b>13,760.90</b>	<b>0.00</b>	<b>0.00</b>	<b>3,440.22</b>	<b>5,060.57</b>	<b>22,261.69</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	84.0000	EA	5,373.87	0.00	0.00	1,343.47	1,976.24	8,693.57

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Cottonwood Trees	84.0000	EA	298.21	0.00	0.00	74.55	109.67	482.44
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	154.0000	EA	7,542.09	0.00	0.00	1,885.52	2,773.60	12,201.22
Delivery - Gooding's Willow Trees	154.0000	EA	546.73	0.00	0.00	136.68	201.06	884.47
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>9,135.40</b>	<b>0.00</b>	<b>0.00</b>	<b>2,283.85</b>	<b>3,359.54</b>	<b>14,778.80</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	336.0000	EA	8,075.08	0.00	0.00	2,018.77	2,969.61	13,063.47
Delivery - Shrubs	336.0000	EA	1,060.32	0.00	0.00	265.08	389.93	1,715.33
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.5604</b>	<b>ACR</b>	<b>1,319.47</b>	<b>0.00</b>	<b>0.00</b>	<b>329.87</b>	<b>485.23</b>	<b>2,134.56</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.5604	ACR	1,319.47	0.00	0.00	329.87	485.23	2,134.56
<b>Watering</b>	<b>2.8020</b>	<b>ACR</b>	<b>6,147.82</b>	<b>0.00</b>	<b>0.00</b>	<b>1,536.95</b>	<b>2,260.86</b>	<b>9,945.63</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	14.0100	ACR	3,477.72	0.00	0.00	869.43	1,278.93	5,626.08
(Note: Water 5 times in the contract life.)								
Travel Time	28.0200	EA	2,670.10	0.00	0.00	667.52	981.93	4,319.55
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>77,590.74</b>	<b>0.00</b>	<b>0.00</b>	<b>19,397.69</b>	<b>28,533.99</b>	<b>125,522.42</b>
Total O&M for the First Year Dollars	2.0000	EA	77,590.74	0.00	0.00	19,397.69	28,533.99	125,522.42
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wet Meadow (Water Feature)</b>	<b>6.4800</b>	<b>ACR</b>	<b>535,193.07</b>	<b>62,663.44</b>	<b>52,219.53</b>	<b>133,798.27</b>	<b>73,866.36</b>	<b>857,740.67</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>5,227.2000</b>	<b>LCY</b>	<b>99,367.83</b>	<b>11,924.14</b>	<b>9,936.78</b>	<b>24,841.96</b>	<b>13,146.36</b>	<b>159,217.07</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>5,227.2000</b>	<b>LCY</b>	<b>23,495.28</b>	<b>2,819.43</b>	<b>2,349.53</b>	<b>5,873.82</b>	<b>3,108.43</b>	<b>37,646.48</b>
VEG REMOVAL ABOVE GROUND	6.4800	ACR	5,682.93	681.95	568.29	1,420.73	751.85	9,105.76
Clearing Large Site	5,227.2000	LCY	17,812.35	2,137.48	1,781.23	4,453.09	2,356.57	28,540.72

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>6,011.2800</b>	<b>LCY</b>	<b>75,872.55</b>	<b>9,104.71</b>	<b>7,587.26</b>	<b>18,968.14</b>	<b>10,037.94</b>	<b>121,570.59</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	6,011.2800	LCY	75,872.55	9,104.71	7,587.26	18,968.14	10,037.94	121,570.59
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>31,363.2000</b>	<b>BCY</b>	<b>154,019.08</b>	<b>18,482.29</b>	<b>15,401.91</b>	<b>38,504.77</b>	<b>20,376.72</b>	<b>246,784.78</b>
Excavation, Random	31,363.2000	CY	154,019.08	18,482.29	15,401.91	38,504.77	20,376.72	246,784.78
<b>Rough Grading</b>	<b>31,363.2000</b>	<b>SY</b>	<b>15,531.56</b>	<b>1,863.79</b>	<b>1,553.16</b>	<b>3,882.89</b>	<b>2,054.83</b>	<b>24,886.22</b>
Rough Grading	31,363.2000	SY	15,531.56	1,863.79	1,553.16	3,882.89	2,054.83	24,886.22
<b>Compaction</b>	<b>10,454.4000</b>	<b>ECY</b>	<b>15,544.07</b>	<b>1,865.29</b>	<b>1,554.41</b>	<b>3,886.02</b>	<b>2,056.48</b>	<b>24,906.26</b>
Compaction	10,454.4000	ECY	15,544.07	1,865.29	1,554.41	3,886.02	2,056.48	24,906.26
<b>Load/Handle Waste Material</b>	<b>36,067.6800</b>	<b>LCY</b>	<b>50,218.97</b>	<b>6,026.28</b>	<b>5,021.90</b>	<b>12,554.74</b>	<b>6,643.97</b>	<b>80,465.86</b>
Load Waste Material	36,067.6800	LCY	50,218.97	6,026.28	5,021.90	12,554.74	6,643.97	80,465.86
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
<b>Haul Waste Material</b>	<b>36,067.6800</b>	<b>LCY</b>	<b>148,430.15</b>	<b>17,811.62</b>	<b>14,843.01</b>	<b>37,107.54</b>	<b>19,637.31</b>	<b>237,829.62</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	36,067.6800	LCY	148,430.15	17,811.62	14,843.01	37,107.54	19,637.31	237,829.62
<b>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</b>								
<b>Revegetation</b>	<b>6.4800</b>	<b>ACR</b>	<b>39,083.67</b>	<b>4,690.04</b>	<b>3,908.37</b>	<b>9,770.92</b>	<b>5,170.77</b>	<b>62,623.76</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>14,459.28</b>	<b>1,735.11</b>	<b>1,445.93</b>	<b>3,614.82</b>	<b>1,912.96</b>	<b>23,168.11</b>
<b>(Note: Assume 42 shrubs per acre.)</b>								
Shrubs	272.1600	EA	12,780.09	1,533.61	1,278.01	3,195.02	1,690.81	20,477.54
Delivery - Shrubs	272.1600	EA	1,679.19	201.50	167.92	419.80	222.16	2,690.57
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>24,624.39</b>	<b>2,954.93</b>	<b>2,462.44</b>	<b>6,156.10</b>	<b>3,257.81</b>	<b>39,455.65</b>
<b>(Note: 1000 Plugs per acre)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
PLUGS	6,480.0000	EA	20,512.08	2,461.45	2,051.21	5,128.02	2,713.75	32,866.50
Delivery - PLUGS	6,480.0000	EA	4,112.31	493.48	411.23	1,028.08	544.06	6,589.15
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>12,997.74</b>	<b>0.00</b>	<b>0.00</b>	<b>3,249.44</b>	<b>4,779.92</b>	<b>21,027.10</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,332.58</b>	<b>0.00</b>	<b>0.00</b>	<b>1,083.15</b>	<b>1,593.31</b>	<b>7,009.03</b>
<b>Treat-Retreat-Reveg</b>	<b>0.3240</b>	<b>ACR</b>	<b>4,332.58</b>	<b>0.00</b>	<b>0.00</b>	<b>1,083.15</b>	<b>1,593.31</b>	<b>7,009.03</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3240</b>	<b>ACR</b>	<b>788.07</b>	<b>0.00</b>	<b>0.00</b>	<b>197.02</b>	<b>289.81</b>	<b>1,274.91</b>
VEG REMOVAL ABOVE GROUND	0.0000	ACR	0.00	0.00	0.00	0.00	0.00	0.00
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.6480	ACR	788.07	0.00	0.00	197.02	289.81	1,274.91
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.3240</b>	<b>ACR</b>	<b>3,544.51</b>	<b>0.00</b>	<b>0.00</b>	<b>886.13</b>	<b>1,303.49</b>	<b>5,734.13</b>
<b>Tree Plantings</b>	<b>0.3240</b>	<b>ACR</b>	<b>1,620.69</b>	<b>0.00</b>	<b>0.00</b>	<b>405.17</b>	<b>596.01</b>	<b>2,621.88</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	10.0000	EA	639.75	0.00	0.00	159.94	235.27	1,034.95
Delivery - Cottonwood Trees	10.0000	EA	35.50	0.00	0.00	8.88	13.06	57.43
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	18.0000	EA	881.54	0.00	0.00	220.39	324.19	1,426.12
Delivery - Gooding's Willow Trees	18.0000	EA	63.90	0.00	0.00	15.98	23.50	103.38
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,060.36</b>	<b>0.00</b>	<b>0.00</b>	<b>265.09</b>	<b>389.95</b>	<b>1,715.40</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	39.0000	EA	937.29	0.00	0.00	234.32	344.69	1,516.30
Delivery - Shrubs	39.0000	EA	123.07	0.00	0.00	30.77	45.26	199.10
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Seeding</b>	<b>0.0648</b>	<b>ACR</b>	<b>152.57</b>	<b>0.00</b>	<b>0.00</b>	<b>38.14</b>	<b>56.11</b>	<b>246.82</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0648	ACR	152.57	0.00	0.00	38.14	56.11	246.82
<b>Watering</b>	<b>0.3240</b>	<b>ACR</b>	<b>710.88</b>	<b>0.00</b>	<b>0.00</b>	<b>177.72</b>	<b>261.43</b>	<b>1,150.03</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	1.6200	ACR	402.13	0.00	0.00	100.53	147.89	650.55
(Note: Water 5 times in the contract life.)								
Travel Time	3.2400	EA	308.75	0.00	0.00	77.19	113.54	499.48
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,665.16</b>	<b>0.00</b>	<b>0.00</b>	<b>2,166.29</b>	<b>3,186.61</b>	<b>14,018.06</b>
Total O&M for the First Year Dollars	2.0000	EA	8,665.16	0.00	0.00	2,166.29	3,186.61	14,018.06
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Enhance Ditch for Wet Habitat</b>	<b>7.8000</b>	<b>ACR</b>	<b>658,707.08</b>	<b>74,340.39</b>	<b>61,950.32</b>	<b>164,676.77</b>	<b>96,377.49</b>	<b>1,056,052.05</b>
<b>High Flow Channel</b>	<b>13,068.0000</b>	<b>LF</b>	<b>658,707.08</b>	<b>74,340.39</b>	<b>61,950.32</b>	<b>164,676.77</b>	<b>96,377.49</b>	<b>1,056,052.05</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>6,292.0000</b>	<b>LCY</b>	<b>6,840.56</b>	<b>820.87</b>	<b>684.06</b>	<b>1,710.14</b>	<b>905.01</b>	<b>10,960.64</b>
<b>Clearing</b>	<b>6,292.0000</b>	<b>LCY</b>	<b>6,840.56</b>	<b>820.87</b>	<b>684.06</b>	<b>1,710.14</b>	<b>905.01</b>	<b>10,960.64</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
VEG REMOVAL ABOVE GROUND	7.8000	ACR	6,840.56	820.87	684.06	1,710.14	905.01	10,960.64
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Rough Grading</b>	<b>40,656.0000</b>	<b>SY</b>	<b>46,461.94</b>	<b>5,575.43</b>	<b>4,646.19</b>	<b>11,615.48</b>	<b>6,146.91</b>	<b>74,445.96</b>
Rough Grading	40,656.0000	SY	46,461.94	5,575.43	4,646.19	11,615.48	6,146.91	74,445.96
<b>Revegetation</b>	<b>13,068.0000</b>	<b>LF</b>	<b>566,200.74</b>	<b>67,944.09</b>	<b>56,620.07</b>	<b>141,550.19</b>	<b>74,908.36</b>	<b>907,223.45</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>437,376.44</b>	<b>52,485.17</b>	<b>43,737.64</b>	<b>109,344.11</b>	<b>57,864.90</b>	<b>700,808.26</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	523.0000	EA	65,362.62	7,843.51	6,536.26	16,340.66	8,647.47	104,730.53
Delivery - Cottonwood Trees	523.0000	EA	3,630.20	435.62	363.02	907.55	480.28	5,816.67
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	17,424.0000	EA	230,431.86	27,651.82	23,043.19	57,607.96	30,486.13	369,220.97



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Coyote Willows	17,424.0000	EA	30,715.40	3,685.85	3,071.54	7,678.85	4,063.65	49,215.28
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	1,045.0000	EA	99,982.90	11,997.95	9,998.29	24,995.73	13,227.74	160,202.60
Delivery - Gooding's Willow Trees	1,045.0000	EA	7,253.46	870.42	725.35	1,813.36	959.63	11,622.22
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>49,071.11</b>	<b>5,888.53</b>	<b>4,907.11</b>	<b>12,267.78</b>	<b>6,492.11</b>	<b>78,626.65</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	1,045.0000	EA	49,071.11	5,888.53	4,907.11	12,267.78	6,492.11	78,626.65
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>7.8000</b>	<b>ACR</b>	<b>35,897.38</b>	<b>4,307.69</b>	<b>3,589.74</b>	<b>8,974.34</b>	<b>4,749.22</b>	<b>57,518.36</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	7.8000	ACR	35,897.38	4,307.69	3,589.74	8,974.34	4,749.22	57,518.36
<b>Watering</b>	<b>7.8000</b>	<b>ACR</b>	<b>33,481.65</b>	<b>4,017.80</b>	<b>3,348.17</b>	<b>8,370.41</b>	<b>4,429.62</b>	<b>53,647.65</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	39.0000	ACR	18,939.48	2,272.74	1,893.95	4,734.87	2,505.69	30,346.74
Travel Time	78.0000	EA	14,542.17	1,745.06	1,454.22	3,635.54	1,923.93	23,300.92
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>10,374.16</b>	<b>1,244.90</b>	<b>1,037.42</b>	<b>2,593.54</b>	<b>1,372.50</b>	<b>16,622.52</b>
PLUGS	2,730.0000	EA	8,641.66	1,037.00	864.17	2,160.42	1,143.29	13,846.53
Delivery - PLUGS	2,730.0000	EA	1,732.50	207.90	173.25	433.13	229.21	2,775.99
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>39,203.83</b>	<b>0.00</b>	<b>0.00</b>	<b>9,800.96</b>	<b>14,417.21</b>	<b>63,422.00</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (10 Year)</b>	<b>2.0000</b>	<b>EA</b>	<b>39,203.83</b>	<b>0.00</b>	<b>0.00</b>	<b>9,800.96</b>	<b>14,417.21</b>	<b>63,422.00</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Channel Excavation</b>	<b>9,680.0000</b>	<b>BCY</b>	<b>29,009.38</b>	<b>0.00</b>	<b>0.00</b>	<b>7,252.35</b>	<b>10,668.20</b>	<b>46,929.93</b>
<b>(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 13,068' * 10'(wide) * 2' (deep)/27 = 9,680 BCY.)</b>								
Channel Excavation	9,680.0000	BCY	29,009.38	0.00	0.00	7,252.35	10,668.20	46,929.93
<b>Load/Handle Waste Material</b>	<b>11,132.0000</b>	<b>LCY</b>	<b>10,194.45</b>	<b>0.00</b>	<b>0.00</b>	<b>2,548.61</b>	<b>3,749.01</b>	<b>16,492.07</b>
Load Waste Material	11,132.0000	LCY	10,194.45	0.00	0.00	2,548.61	3,749.01	16,492.07
<b>(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)</b>								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>59,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>14,750.00</b>	<b>21,697.25</b>	<b>95,447.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	59,000.00	0.00	0.00	14,750.00	21,697.25	95,447.25
<b>(Note: This cost was provided by the environmental section. The cost totaled \$5,900.00 per year for a total of 10 years =)</b>								
<b>Project ID #6</b>	<b>1.0000</b>	<b>LS</b>	<b>396,300.06</b>	<b>44,734.18</b>	<b>37,278.48</b>	<b>99,075.02</b>	<b>57,967.17</b>	<b>635,354.90</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>396,300.06</b>	<b>44,734.18</b>	<b>37,278.48</b>	<b>99,075.02</b>	<b>57,967.17</b>	<b>635,354.90</b>
<b>Swale</b>	<b>1.2600</b>	<b>ACR</b>	<b>203,334.13</b>	<b>24,331.85</b>	<b>20,276.54</b>	<b>50,833.53</b>	<b>27,035.01</b>	<b>325,811.06</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>1,016.4000</b>	<b>LCY</b>	<b>19,321.52</b>	<b>2,318.58</b>	<b>1,932.15</b>	<b>4,830.38</b>	<b>2,556.24</b>	<b>30,958.87</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>1,016.4000</b>	<b>LCY</b>	<b>4,568.53</b>	<b>548.22</b>	<b>456.85</b>	<b>1,142.13</b>	<b>604.42</b>	<b>7,320.15</b>
VEG REMOVAL ABOVE GROUND	1.2600	ACR	1,105.01	132.60	110.50	276.25	146.19	1,770.56
Clearing Large Site	1,016.4000	LCY	3,463.51	415.62	346.35	865.88	458.22	5,549.58
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>1,168.8600</b>	<b>LCY</b>	<b>14,753.00</b>	<b>1,770.36</b>	<b>1,475.30</b>	<b>3,688.25</b>	<b>1,951.82</b>	<b>23,638.73</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	1,168.8600	LCY	14,753.00	1,770.36	1,475.30	3,688.25	1,951.82	23,638.73
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>6,098.4000</b>	<b>BCY</b>	<b>29,948.16</b>	<b>3,593.78</b>	<b>2,994.82</b>	<b>7,487.04</b>	<b>3,962.14</b>	<b>47,985.93</b>
Excavation, Random	6,098.4000	CY	29,948.16	3,593.78	2,994.82	7,487.04	3,962.14	47,985.93
<b>Rough Grading</b>	<b>6,098.4000</b>	<b>SY</b>	<b>3,020.03</b>	<b>362.40</b>	<b>302.00</b>	<b>755.01</b>	<b>399.55</b>	<b>4,838.99</b>

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Rough Grading	6,098.4000	SY	3,020.03	362.40	302.00	755.01	399.55	4,838.99
<b>Compaction</b>	<b>2,032.8000</b>	<b>ECY</b>	<b>3,022.46</b>	<b>362.69</b>	<b>302.25</b>	<b>755.61</b>	<b>399.87</b>	<b>4,842.88</b>
Compaction	2,032.8000	ECY	3,022.46	362.69	302.25	755.61	399.87	4,842.88
<b>Load/Handle Waste Material</b>	<b>7,013.1600</b>	<b>LCY</b>	<b>9,764.80</b>	<b>1,171.78</b>	<b>976.48</b>	<b>2,441.20</b>	<b>1,291.88</b>	<b>15,646.14</b>
Load Waste Material	7,013.1600	LCY	9,764.80	1,171.78	976.48	2,441.20	1,291.88	15,646.14
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>7,013.1600</b>	<b>LCY</b>	<b>28,861.42</b>	<b>3,463.37</b>	<b>2,886.14</b>	<b>7,215.35</b>	<b>3,818.37</b>	<b>46,244.65</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	7,013.1600	LCY	28,861.42	3,463.37	2,886.14	7,215.35	3,818.37	46,244.65
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>1.2600</b>	<b>ACR</b>	<b>108,827.01</b>	<b>13,059.24</b>	<b>10,882.70</b>	<b>27,206.75</b>	<b>14,397.81</b>	<b>174,373.52</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>103,000.83</b>	<b>12,360.10</b>	<b>10,300.08</b>	<b>25,750.21</b>	<b>13,627.01</b>	<b>165,038.24</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	34.0200	EA	4,251.69	510.20	425.17	1,062.92	562.50	6,812.49
Delivery - Cottonwood Trees	34.0200	EA	236.14	28.34	23.61	59.03	31.24	378.36
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	6,098.4000	EA	80,651.15	9,678.14	8,065.12	20,162.79	10,670.15	129,227.34
Delivery - Coyote Willows	6,098.4000	EA	10,750.39	1,290.05	1,075.04	2,687.60	1,422.28	17,225.35
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	69.3000	EA	6,630.44	795.65	663.04	1,657.61	877.21	10,623.96
Delivery - Gooding's Willow Trees	69.3000	EA	481.02	57.72	48.10	120.25	63.64	770.74
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>4,150.35</b>	<b>498.04</b>	<b>415.03</b>	<b>1,037.59</b>	<b>549.09</b>	<b>6,650.11</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	78.1200	EA	3,668.36	440.20	366.84	917.09	485.32	5,877.81
Delivery - Shrubs	78.1200	EA	481.99	57.84	48.20	120.50	63.77	772.29

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>1,675.83</b>	<b>201.10</b>	<b>167.58</b>	<b>418.96</b>	<b>221.71</b>	<b>2,685.18</b>
PLUGS	441.0000	EA	1,395.96	167.52	139.60	348.99	184.69	2,236.75
Delivery - PLUGS	441.0000	EA	279.87	33.58	27.99	69.97	37.03	448.43
<b>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</b>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>568.74</b>	<b>0.00</b>	<b>0.00</b>	<b>142.18</b>	<b>209.15</b>	<b>920.08</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>189.58</b>	<b>0.00</b>	<b>0.00</b>	<b>47.39</b>	<b>69.72</b>	<b>306.69</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0630</b>	<b>ACR</b>	<b>189.58</b>	<b>0.00</b>	<b>0.00</b>	<b>47.39</b>	<b>69.72</b>	<b>306.69</b>
VEG REMOVAL ABOVE GROUND	0.0630	ACR	36.34	0.00	0.00	9.09	13.37	58.79
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	0.1260	ACR	153.24	0.00	0.00	38.31	56.35	247.90
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>379.16</b>	<b>0.00</b>	<b>0.00</b>	<b>94.79</b>	<b>139.44</b>	<b>613.39</b>
Total O&M for the First Year Dollars	2.0000	EA	379.16	0.00	0.00	94.79	139.44	613.39
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>6.2800</b>	<b>ACR</b>	<b>182,965.93</b>	<b>20,402.33</b>	<b>17,001.94</b>	<b>45,741.48</b>	<b>27,254.65</b>	<b>293,366.34</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>6.2800</b>	<b>ACR</b>	<b>36,947.13</b>	<b>4,433.66</b>	<b>3,694.71</b>	<b>9,236.78</b>	<b>4,888.11</b>	<b>59,200.39</b>
VEG REMOVAL ABOVE GROUND	6.2800	ACR	7,086.94	850.43	708.69	1,771.73	937.60	11,355.40
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	12.5600	ACR	29,860.19	3,583.22	2,986.02	7,465.05	3,950.50	47,844.99
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>6.2800</b>	<b>ACR</b>	<b>133,072.27</b>	<b>15,968.67</b>	<b>13,307.23</b>	<b>33,268.07</b>	<b>17,605.46</b>	<b>213,221.71</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>60,297.68</b>	<b>7,235.72</b>	<b>6,029.77</b>	<b>15,074.42</b>	<b>7,977.38</b>	<b>96,614.98</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	188.4000	EA	23,545.54	2,825.46	2,354.55	5,886.39	3,115.08	37,727.02
Delivery - Cottonwood Trees	188.4000	EA	1,307.70	156.92	130.77	326.93	173.01	2,095.34

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	345.4000	EA	33,046.98	3,965.64	3,304.70	8,261.74	4,372.12	52,951.18
Delivery - Gooding's Willow Trees	345.4000	EA	2,397.46	287.70	239.75	599.36	317.18	3,841.45
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>40,037.17</b>	<b>4,804.46</b>	<b>4,003.72</b>	<b>10,009.29</b>	<b>5,296.92</b>	<b>64,151.56</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	753.6000	EA	35,387.55	4,246.51	3,538.76	8,846.89	4,681.77	56,701.47
Delivery - Shrubs	753.6000	EA	4,649.62	557.95	464.96	1,162.40	615.14	7,450.08
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>1.2560</b>	<b>ACR</b>	<b>5,780.40</b>	<b>693.65</b>	<b>578.04</b>	<b>1,445.10</b>	<b>764.75</b>	<b>9,261.93</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	1.2560	ACR	5,780.40	693.65	578.04	1,445.10	764.75	9,261.93
<b>Watering</b>	<b>6.2800</b>	<b>ACR</b>	<b>26,957.02</b>	<b>3,234.84</b>	<b>2,695.70</b>	<b>6,739.26</b>	<b>3,566.41</b>	<b>43,193.24</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	31.4000	ACR	15,248.71	1,829.85	1,524.87	3,812.18	2,017.40	24,433.01
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	62.8000	EA	11,708.31	1,405.00	1,170.83	2,927.08	1,549.01	18,760.23
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>12,946.53</b>	<b>0.00</b>	<b>0.00</b>	<b>3,236.63</b>	<b>4,761.09</b>	<b>20,944.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,315.51</b>	<b>0.00</b>	<b>0.00</b>	<b>1,078.88</b>	<b>1,587.03</b>	<b>6,981.41</b>
<b>Treat-Retreat-Reveg</b>	<b>0.3140</b>	<b>ACR</b>	<b>4,315.51</b>	<b>0.00</b>	<b>0.00</b>	<b>1,078.88</b>	<b>1,587.03</b>	<b>6,981.41</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3140</b>	<b>ACR</b>	<b>944.89</b>	<b>0.00</b>	<b>0.00</b>	<b>236.22</b>	<b>347.48</b>	<b>1,528.59</b>
VEG REMOVAL ABOVE GROUND	0.3140	ACR	181.14	0.00	0.00	45.28	66.61	293.04
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	0.6280	ACR	763.75	0.00	0.00	190.94	280.87	1,235.56
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Revegetation</b>	<b>0.3140</b>	<b>ACR</b>	<b>3,370.62</b>	<b>0.00</b>	<b>0.00</b>	<b>842.65</b>	<b>1,239.55</b>	<b>5,452.82</b>
<b>Tree Plantings</b>	<b>0.3140</b>	<b>ACR</b>	<b>1,500.64</b>	<b>0.00</b>	<b>0.00</b>	<b>375.16</b>	<b>551.86</b>	<b>2,427.67</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	9.0000	EA	575.77	0.00	0.00	143.94	211.74	931.45
Delivery - Cottonwood Trees	9.0000	EA	31.95	0.00	0.00	7.99	11.75	51.69
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	17.0000	EA	832.57	0.00	0.00	208.14	306.18	1,346.89
Delivery - Gooding's Willow Trees	17.0000	EA	60.35	0.00	0.00	15.09	22.19	97.64
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,033.17</b>	<b>0.00</b>	<b>0.00</b>	<b>258.29</b>	<b>379.95</b>	<b>1,671.41</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	38.0000	EA	913.25	0.00	0.00	228.31	335.85	1,477.42
Delivery - Shrubs	38.0000	EA	119.92	0.00	0.00	29.98	44.10	194.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0628</b>	<b>ACR</b>	<b>147.86</b>	<b>0.00</b>	<b>0.00</b>	<b>36.97</b>	<b>54.38</b>	<b>239.21</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0628	ACR	147.86	0.00	0.00	36.97	54.38	239.21
<b>Watering</b>	<b>0.3140</b>	<b>ACR</b>	<b>688.94</b>	<b>0.00</b>	<b>0.00</b>	<b>172.24</b>	<b>253.36</b>	<b>1,114.54</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	1.5700	ACR	389.72	0.00	0.00	97.43	143.32	630.47
(Note: Water 5 times in the contract life.)								
Travel Time	3.1400	EA	299.22	0.00	0.00	74.80	110.04	484.06
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,631.02</b>	<b>0.00</b>	<b>0.00</b>	<b>2,157.76</b>	<b>3,174.06</b>	<b>13,962.83</b>
Total O&M for the First Year Dollars	2.0000	EA	8,631.02	0.00	0.00	2,157.76	3,174.06	13,962.83
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>10,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2,500.00</b>	<b>3,677.50</b>	<b>16,177.50</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Annual Site Assessment Cost	10.0000	YR	10,000.00	0.00	0.00	2,500.00	3,677.50	16,177.50
(Note: This cost was provided by the environmental section. The cost totaled \$1,000.00 per year for a total of 10 years =)								
<b>Project ID #7</b>	<b>1.0000</b>	<b>LS</b>	<b>2,091,264.72</b>	<b>234,415.66</b>	<b>195,346.38</b>	<b>522,816.18</b>	<b>309,119.55</b>	<b>3,352,962.49</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>2,091,264.72</b>	<b>234,415.66</b>	<b>195,346.38</b>	<b>522,816.18</b>	<b>309,119.55</b>	<b>3,352,962.49</b>
<b>Swale</b>	<b>3.7500</b>	<b>ACR</b>	<b>605,161.10</b>	<b>72,416.21</b>	<b>60,346.84</b>	<b>151,290.28</b>	<b>80,461.36</b>	<b>969,675.79</b>
(Note: Assume an average 3 ft depth from existing grade. )								
<b>Vegetation Removal</b>	<b>3,025.0000</b>	<b>LCY</b>	<b>57,504.53</b>	<b>6,900.54</b>	<b>5,750.45</b>	<b>14,376.13</b>	<b>7,607.85</b>	<b>92,139.51</b>
(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)								
<b>Clearing</b>	<b>3,025.0000</b>	<b>LCY</b>	<b>13,596.80</b>	<b>1,631.62</b>	<b>1,359.68</b>	<b>3,399.20</b>	<b>1,798.86</b>	<b>21,786.16</b>
VEG REMOVAL ABOVE GROUND	3.7500	ACR	3,288.73	394.65	328.87	822.18	435.10	5,269.54
Clearing Large Site	3,025.0000	LCY	10,308.07	1,236.97	1,030.81	2,577.02	1,363.76	16,516.62
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>3,478.7500</b>	<b>LCY</b>	<b>43,907.73</b>	<b>5,268.93</b>	<b>4,390.77</b>	<b>10,976.93</b>	<b>5,808.99</b>	<b>70,353.35</b>
(Note: Haul to Waste: Avg Haul - 5 miles)								
Load, Haul and Dispose	3,478.7500	LCY	43,907.73	5,268.93	4,390.77	10,976.93	5,808.99	70,353.35
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>18,150.0000</b>	<b>BCY</b>	<b>89,131.41</b>	<b>10,695.77</b>	<b>8,913.14</b>	<b>22,282.85</b>	<b>11,792.09</b>	<b>142,815.27</b>
Excavation, Random	18,150.0000	CY	89,131.41	10,695.77	8,913.14	22,282.85	11,792.09	142,815.27
<b>Rough Grading</b>	<b>18,150.0000</b>	<b>SY</b>	<b>8,988.17</b>	<b>1,078.58</b>	<b>898.82</b>	<b>2,247.04</b>	<b>1,189.14</b>	<b>14,401.75</b>
Rough Grading	18,150.0000	SY	8,988.17	1,078.58	898.82	2,247.04	1,189.14	14,401.75
<b>Compaction</b>	<b>6,050.0000</b>	<b>ECY</b>	<b>8,995.41</b>	<b>1,079.45</b>	<b>899.54</b>	<b>2,248.85</b>	<b>1,190.09</b>	<b>14,413.34</b>
Compaction	6,050.0000	ECY	8,995.41	1,079.45	899.54	2,248.85	1,190.09	14,413.34
<b>Load/Handle Waste Material</b>	<b>20,872.5000</b>	<b>LCY</b>	<b>29,061.91</b>	<b>3,487.43</b>	<b>2,906.19</b>	<b>7,265.48</b>	<b>3,844.89</b>	<b>46,565.89</b>
Load Waste Material	20,872.5000	LCY	29,061.91	3,487.43	2,906.19	7,265.48	3,844.89	46,565.89
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>20,872.5000</b>	<b>LCY</b>	<b>85,897.08</b>	<b>10,307.65</b>	<b>8,589.71</b>	<b>21,474.27</b>	<b>11,364.18</b>	<b>137,632.88</b>
(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)								
Haul Waste Material	20,872.5000	LCY	85,897.08	10,307.65	8,589.71	21,474.27	11,364.18	137,632.88

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<p>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</p>								
<b>Revegetation</b>	<b>3.7500</b>	<b>ACR</b>	<b>323,889.91</b>	<b>38,866.79</b>	<b>32,388.99</b>	<b>80,972.48</b>	<b>42,850.64</b>	<b>518,968.81</b>
<p>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</p>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>306,550.10</b>	<b>36,786.01</b>	<b>30,655.01</b>	<b>76,637.53</b>	<b>40,556.58</b>	<b>491,185.23</b>
<p>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</p>								
Cottonwood Trees	101.2500	EA	12,653.85	1,518.46	1,265.39	3,163.46	1,674.10	20,275.27
Delivery - Cottonwood Trees	101.2500	EA	702.79	84.33	70.28	175.70	92.98	1,126.08
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
Coyote Willows	18,150.0000	EA	240,033.19	28,803.98	24,003.32	60,008.30	31,756.39	384,605.17
Delivery - Coyote Willows	18,150.0000	EA	31,995.21	3,839.42	3,199.52	7,998.80	4,232.97	51,265.92
<p>(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)</p>								
Gooding's Willows	206.2500	EA	19,733.47	2,368.02	1,973.35	4,933.37	2,610.74	31,618.93
Delivery - Gooding's Willow Trees	206.2500	EA	1,431.60	171.79	143.16	357.90	189.40	2,293.86
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>12,352.23</b>	<b>1,482.27</b>	<b>1,235.22</b>	<b>3,088.06</b>	<b>1,634.20</b>	<b>19,791.98</b>
<p>(Note: Assume 62 shrubs per acre.)</p>								
Shrubs	232.5000	EA	10,917.74	1,310.13	1,091.77	2,729.43	1,444.42	17,493.49
Delivery - Shrubs	232.5000	EA	1,434.50	172.14	143.45	358.62	189.78	2,298.49
<p>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</p>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>4,987.58</b>	<b>598.51</b>	<b>498.76</b>	<b>1,246.89</b>	<b>659.86</b>	<b>7,991.60</b>
PLUGS	1,312.5000	EA	4,154.64	498.56	415.46	1,038.66	549.66	6,656.99
Delivery - PLUGS	1,312.5000	EA	832.93	99.95	83.29	208.23	110.20	1,334.61
<p>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</p>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>1,692.69</b>	<b>0.00</b>	<b>0.00</b>	<b>423.17</b>	<b>622.48</b>	<b>2,738.34</b>



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>564.23</b>	<b>0.00</b>	<b>0.00</b>	<b>141.06</b>	<b>207.49</b>	<b>912.78</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1875</b>	<b>ACR</b>	<b>564.23</b>	<b>0.00</b>	<b>0.00</b>	<b>141.06</b>	<b>207.49</b>	<b>912.78</b>
VEG REMOVAL ABOVE GROUND	0.1875	ACR	108.16	0.00	0.00	27.04	39.78	174.98
<small>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</small>								
Exotic Species Removal Herbicide Treatment	0.3750	ACR	456.06	0.00	0.00	114.02	167.72	737.79
<small>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</small>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,128.46</b>	<b>0.00</b>	<b>0.00</b>	<b>282.12</b>	<b>414.99</b>	<b>1,825.57</b>
Total O&M for the First Year Dollars	2.0000	EA	1,128.46	0.00	0.00	282.12	414.99	1,825.57
<small>(Note: This will happen once every three years for a total of three times in 10years.)</small>								
<b>Treat-Retreat-Reveg</b>	<b>39.0100</b>	<b>ACR</b>	<b>1,137,225.03</b>	<b>126,734.85</b>	<b>105,612.37</b>	<b>284,306.26</b>	<b>169,550.17</b>	<b>1,823,428.67</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>39.0100</b>	<b>ACR</b>	<b>229,507.57</b>	<b>27,540.91</b>	<b>22,950.76</b>	<b>57,376.89</b>	<b>30,363.85</b>	<b>367,739.97</b>
VEG REMOVAL ABOVE GROUND	39.0100	ACR	44,022.51	5,282.70	4,402.25	11,005.63	5,824.18	70,537.27
<small>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</small>								
Exotic Species Removal Herbicide Treatment	78.0200	ACR	185,485.05	22,258.21	18,548.51	46,371.26	24,539.67	297,202.70
<small>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</small>								
<b>Revegetation</b>	<b>39.0100</b>	<b>ACR</b>	<b>826,616.15</b>	<b>99,193.94</b>	<b>82,661.62</b>	<b>206,654.04</b>	<b>109,361.32</b>	<b>1,324,487.06</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>374,556.16</b>	<b>44,946.74</b>	<b>37,455.62</b>	<b>93,639.04</b>	<b>49,553.78</b>	<b>600,151.33</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,170.3000	EA	146,259.80	17,551.18	14,625.98	36,564.95	19,350.17	234,352.08
Delivery - Cottonwood Trees	1,170.3000	EA	8,123.18	974.78	812.32	2,030.79	1,074.70	13,015.77
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
Gooding's Willows	2,145.5500	EA	205,280.68	24,633.68	20,528.07	51,320.17	27,158.63	328,921.24
Delivery - Gooding's Willow Trees	2,145.5500	EA	14,892.50	1,787.10	1,489.25	3,723.12	1,970.28	23,862.25
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>248,702.22</b>	<b>29,844.27</b>	<b>24,870.22</b>	<b>62,175.56</b>	<b>32,903.30</b>	<b>398,495.57</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Shrubs	4,681.2000	EA	219,819.80	26,378.38	21,981.98	54,954.95	29,082.16	352,217.27
Delivery - Shrubs	4,681.2000	EA	28,882.42	3,465.89	2,888.24	7,220.60	3,821.14	46,278.30
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>7.8020</b>	<b>ACR</b>	<b>35,906.58</b>	<b>4,308.79</b>	<b>3,590.66</b>	<b>8,976.64</b>	<b>4,750.44</b>	<b>57,533.11</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	7.8020	ACR	35,906.58	4,308.79	3,590.66	8,976.64	4,750.44	57,533.11
<b>Watering</b>	<b>39.0100</b>	<b>ACR</b>	<b>167,451.19</b>	<b>20,094.14</b>	<b>16,745.12</b>	<b>41,862.80</b>	<b>22,153.79</b>	<b>268,307.05</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	195.0500	ACR	94,721.70	11,366.60	9,472.17	23,680.43	12,531.68	151,772.58
(Note: Water 5 times in the contract life.)								
Travel Time	390.1000	EA	72,729.49	8,727.54	7,272.95	18,182.37	9,622.11	116,534.47
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>81,101.31</b>	<b>0.00</b>	<b>0.00</b>	<b>20,275.33</b>	<b>29,825.01</b>	<b>131,201.64</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>27,033.77</b>	<b>0.00</b>	<b>0.00</b>	<b>6,758.44</b>	<b>9,941.67</b>	<b>43,733.87</b>
<b>Treat-Retreat-Reveg</b>	<b>1.9505</b>	<b>ACR</b>	<b>27,033.77</b>	<b>0.00</b>	<b>0.00</b>	<b>6,758.44</b>	<b>9,941.67</b>	<b>43,733.87</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.9505</b>	<b>ACR</b>	<b>5,869.45</b>	<b>0.00</b>	<b>0.00</b>	<b>1,467.36</b>	<b>2,158.49</b>	<b>9,495.30</b>
VEG REMOVAL ABOVE GROUND	1.9505	ACR	1,125.20	0.00	0.00	281.30	413.79	1,820.28
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.9010	ACR	4,744.25	0.00	0.00	1,186.06	1,744.70	7,675.01
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.9505</b>	<b>ACR</b>	<b>21,164.32</b>	<b>0.00</b>	<b>0.00</b>	<b>5,291.08</b>	<b>7,783.18</b>	<b>34,238.58</b>
<b>Tree Plantings</b>	<b>1.9505</b>	<b>ACR</b>	<b>9,604.11</b>	<b>0.00</b>	<b>0.00</b>	<b>2,401.03</b>	<b>3,531.91</b>	<b>15,537.06</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	59.0000	EA	3,774.50	0.00	0.00	943.63	1,388.07	6,106.20
Delivery - Cottonwood Trees	59.0000	EA	209.46	0.00	0.00	52.37	77.03	338.85
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	107.0000	EA	5,240.28	0.00	0.00	1,310.07	1,927.11	8,477.47

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	107.0000	EA	379.87	0.00	0.00	94.97	139.70	614.53
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>6,362.16</b>	<b>0.00</b>	<b>0.00</b>	<b>1,590.54</b>	<b>2,339.68</b>	<b>10,292.38</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	234.0000	EA	5,623.72	0.00	0.00	1,405.93	2,068.12	9,097.77
Delivery - Shrubs	234.0000	EA	738.44	0.00	0.00	184.61	271.56	1,194.61
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3901</b>	<b>ACR</b>	<b>918.49</b>	<b>0.00</b>	<b>0.00</b>	<b>229.62</b>	<b>337.78</b>	<b>1,485.89</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3901	ACR	918.49	0.00	0.00	229.62	337.78	1,485.89
<b>Watering</b>	<b>1.9505</b>	<b>ACR</b>	<b>4,279.56</b>	<b>0.00</b>	<b>0.00</b>	<b>1,069.89</b>	<b>1,573.81</b>	<b>6,923.25</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	9.7525	ACR	2,420.88	0.00	0.00	605.22	890.28	3,916.37
(Note: Water 5 times in the contract life.)								
Travel Time	19.5050	EA	1,858.68	0.00	0.00	464.67	683.53	3,006.88
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>54,067.54</b>	<b>0.00</b>	<b>0.00</b>	<b>13,516.89</b>	<b>19,883.34</b>	<b>87,467.76</b>
Total O&M for the First Year Dollars	2.0000	EA	54,067.54	0.00	0.00	13,516.89	19,883.34	87,467.76
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>1.9900</b>	<b>ACR</b>	<b>313,878.59</b>	<b>35,264.60</b>	<b>29,387.17</b>	<b>78,469.65</b>	<b>46,236.77</b>	<b>503,236.78</b>
<b>High Flow Channel</b>	<b>3,334.0154</b>	<b>LF</b>	<b>313,878.59</b>	<b>35,264.60</b>	<b>29,387.17</b>	<b>78,469.65</b>	<b>46,236.77</b>	<b>503,236.78</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>1,605.2667</b>	<b>LCY</b>	<b>30,514.83</b>	<b>3,661.78</b>	<b>3,051.48</b>	<b>7,628.71</b>	<b>4,037.11</b>	<b>48,893.91</b>
<b>Clearing</b>	<b>1,605.2667</b>	<b>LCY</b>	<b>7,214.46</b>	<b>865.74</b>	<b>721.45</b>	<b>1,803.62</b>	<b>954.47</b>	<b>11,559.73</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	1,605.0000	LCY	5,469.24	656.31	546.92	1,367.31	723.58	8,763.36
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>VEG REMOVAL ABOVE GROUND</b>	<b>1.9900</b>	<b>ACR</b>	<b>1,745.22</b>	<b>209.43</b>	<b>174.52</b>	<b>436.31</b>	<b>230.89</b>	<b>2,796.37</b>
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Haul Waste</b>	<b>1,846.0567</b>	<b>LCY</b>	<b>23,300.37</b>	<b>2,796.04</b>	<b>2,330.04</b>	<b>5,825.09</b>	<b>3,082.64</b>	<b>37,334.18</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	1,846.0567	LCY	23,300.37	2,796.04	2,330.04	5,825.09	3,082.64	37,334.18
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>8,890.7077</b>	<b>BCY</b>	<b>40,513.50</b>	<b>4,861.62</b>	<b>4,051.35</b>	<b>10,128.38</b>	<b>5,359.94</b>	<b>64,914.78</b>
Channel Excavation	8,890.7077	BCY	40,513.50	4,861.62	4,051.35	10,128.38	5,359.94	64,914.78
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>10,372.4923</b>	<b>SY</b>	<b>11,853.75</b>	<b>1,422.45</b>	<b>1,185.38</b>	<b>2,963.44</b>	<b>1,568.25</b>	<b>18,993.26</b>
Rough Grading	10,372.4923	SY	11,853.75	1,422.45	1,185.38	2,963.44	1,568.25	18,993.26
<b>Compaction</b>	<b>3,457.4974</b>	<b>ECY</b>	<b>10,227.41</b>	<b>1,227.29</b>	<b>1,022.74</b>	<b>2,556.85</b>	<b>1,353.09</b>	<b>16,387.39</b>
Compaction	3,457.0000	ECY	10,227.41	1,227.29	1,022.74	2,556.85	1,353.09	16,387.39
<b>Load/Handle Waste Material</b>	<b>10,224.3138</b>	<b>LCY</b>	<b>14,235.86</b>	<b>1,708.30</b>	<b>1,423.59</b>	<b>3,558.97</b>	<b>1,883.40</b>	<b>22,810.12</b>
Load Waste Material	10,224.3138	LCY	14,235.86	1,708.30	1,423.59	3,558.97	1,883.40	22,810.12
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>10,224.3138</b>	<b>LCY</b>	<b>42,076.35</b>	<b>5,049.16</b>	<b>4,207.64</b>	<b>10,519.09</b>	<b>5,566.70</b>	<b>67,418.94</b>
Haul Waste Material	10,224.3138	LCY	42,076.35	5,049.16	4,207.64	10,519.09	5,566.70	67,418.94
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>3,334.0154</b>	<b>LF</b>	<b>144,449.97</b>	<b>17,334.00</b>	<b>14,445.00</b>	<b>36,112.49</b>	<b>19,110.73</b>	<b>231,452.18</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>111,564.89</b>	<b>13,387.79</b>	<b>11,156.49</b>	<b>27,891.22</b>	<b>14,760.04</b>	<b>178,760.43</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	133.0000	EA	16,621.85	1,994.62	1,662.19	4,155.46	2,199.07	26,633.19
Delivery - Cottonwood Trees	133.0000	EA	923.17	110.78	92.32	230.79	122.14	1,479.19
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	4,445.0000	EA	58,784.99	7,054.20	5,878.50	14,696.25	7,777.25	94,191.18
Delivery - Coyote Willows	4,445.0000	EA	7,835.74	940.29	783.57	1,958.94	1,036.67	12,555.21
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Gooding's Willows	267.0000	EA	25,545.87	3,065.50	2,554.59	6,386.47	3,379.72	40,932.15
Delivery - Gooding's Willow Trees	267.0000	EA	1,853.28	222.39	185.33	463.32	245.19	2,969.50
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>12,537.79</b>	<b>1,504.53</b>	<b>1,253.78</b>	<b>3,134.45</b>	<b>1,658.75</b>	<b>20,089.30</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	267.0000	EA	12,537.79	1,504.53	1,253.78	3,134.45	1,658.75	20,089.30
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.9900</b>	<b>ACR</b>	<b>9,158.43</b>	<b>1,099.01</b>	<b>915.84</b>	<b>2,289.61</b>	<b>1,211.66</b>	<b>14,674.56</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	1.9900	ACR	9,158.43	1,099.01	915.84	2,289.61	1,211.66	14,674.56
<b>Watering</b>	<b>1.9900</b>	<b>ACR</b>	<b>8,542.11</b>	<b>1,025.05</b>	<b>854.21</b>	<b>2,135.53</b>	<b>1,130.12</b>	<b>13,687.03</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	9.9500	ACR	4,832.00	579.84	483.20	1,208.00	639.27	7,742.31
Travel Time	19.9000	EA	3,710.12	445.21	371.01	927.53	490.85	5,944.72
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>2,646.74</b>	<b>317.61</b>	<b>264.67</b>	<b>661.69</b>	<b>350.16</b>	<b>4,240.87</b>
PLUGS	696.5000	EA	2,204.73	264.57	220.47	551.18	291.69	3,532.64
Delivery - PLUGS	696.5000	EA	442.01	53.04	44.20	110.50	58.48	708.23
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>20,006.92</b>	<b>0.00</b>	<b>0.00</b>	<b>5,001.73</b>	<b>7,357.54</b>	<b>32,366.19</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1 Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,003.46</b>	<b>0.00</b>	<b>0.00</b>	<b>2,500.86</b>	<b>3,678.77</b>	<b>16,183.09</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>2,470.0000</b>	<b>BCY</b>	<b>7,402.19</b>	<b>0.00</b>	<b>0.00</b>	<b>1,850.55</b>	<b>2,722.15</b>	<b>11,974.89</b>
<b>(Note: Excavation is estimtated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 3,334' * 10'(wide) * 2' (deep)/27 = 2,469.62 BCY.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Channel Excavation	2,470.0000	BCY	7,402.19	0.00	0.00	1,850.55	2,722.15	11,974.89
<b>Load/Handle Waste Material</b>	<b>2,840.5000</b>	<b>LCY</b>	<b>2,601.27</b>	<b>0.00</b>	<b>0.00</b>	<b>650.32</b>	<b>956.62</b>	<b>4,208.20</b>
Load Waste Material	2,840.5000	LCY	2,601.27	0.00	0.00	650.32	956.62	4,208.20
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,003.46</b>	<b>0.00</b>	<b>0.00</b>	<b>2,500.87</b>	<b>3,678.77</b>	<b>16,183.10</b>
Total O&M for the First Year Dollars	1.0000	EA	10,003.46	0.00	0.00	2,500.87	3,678.77	16,183.10
(Note: This will happen once every five years for a total of two times in 10 years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>35,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8,750.00</b>	<b>12,871.25</b>	<b>56,621.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	35,000.00	0.00	0.00	8,750.00	12,871.25	56,621.25
(Note: This cost was provided by the environmental section. The cost totaled \$3,500.00 per year for a total of 10 years =)								
<b>Project ID #8</b>	<b>1.0000</b>	<b>LS</b>	<b>2,081,779.87</b>	<b>236,184.34</b>	<b>196,820.28</b>	<b>520,444.97</b>	<b>302,161.19</b>	<b>3,337,390.65</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>2,081,779.87</b>	<b>236,184.34</b>	<b>196,820.28</b>	<b>520,444.97</b>	<b>302,161.19</b>	<b>3,337,390.65</b>
<b>Swale</b>	<b>6.0900</b>	<b>ACR</b>	<b>982,781.61</b>	<b>117,603.93</b>	<b>98,003.27</b>	<b>245,695.40</b>	<b>130,669.24</b>	<b>1,574,753.45</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>4,912.6000</b>	<b>LCY</b>	<b>93,387.36</b>	<b>11,206.48</b>	<b>9,338.74</b>	<b>23,346.84</b>	<b>12,355.15</b>	<b>149,634.56</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>4,912.6000</b>	<b>LCY</b>	<b>22,081.21</b>	<b>2,649.75</b>	<b>2,208.12</b>	<b>5,520.30</b>	<b>2,921.34</b>	<b>35,380.72</b>
VEG REMOVAL ABOVE GROUND	6.0900	ACR	5,340.90	640.91	534.09	1,335.23	706.60	8,557.73
Clearing Large Site	4,912.6000	LCY	16,740.31	2,008.84	1,674.03	4,185.08	2,214.74	26,822.99
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>5,649.4900</b>	<b>LCY</b>	<b>71,306.15</b>	<b>8,556.74</b>	<b>7,130.61</b>	<b>17,826.54</b>	<b>9,433.80</b>	<b>114,253.84</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	5,649.4900	LCY	71,306.15	8,556.74	7,130.61	17,826.54	9,433.80	114,253.84
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>29,475.6000</b>	<b>BCY</b>	<b>144,749.42</b>	<b>17,369.93</b>	<b>14,474.94</b>	<b>36,187.35</b>	<b>19,150.35</b>	<b>231,931.99</b>
Excavation, Random	29,475.6000	CY	144,749.42	17,369.93	14,474.94	36,187.35	19,150.35	231,931.99

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Rough Grading</b>	<b>29,475.6000</b>	<b>SY</b>	<b>14,596.79</b>	<b>1,751.62</b>	<b>1,459.68</b>	<b>3,649.20</b>	<b>1,931.16</b>	<b>23,388.44</b>
Rough Grading	29,475.6000	SY	14,596.79	1,751.62	1,459.68	3,649.20	1,931.16	23,388.44
<b>Compaction</b>	<b>9,825.2000</b>	<b>ECY</b>	<b>14,608.54</b>	<b>1,753.03</b>	<b>1,460.85</b>	<b>3,652.14</b>	<b>1,932.71</b>	<b>23,407.27</b>
Compaction	9,825.2000	ECY	14,608.54	1,753.03	1,460.85	3,652.14	1,932.71	23,407.27
<b>Load/Handle Waste Material</b>	<b>33,896.9400</b>	<b>LCY</b>	<b>47,196.53</b>	<b>5,663.58</b>	<b>4,719.65</b>	<b>11,799.13</b>	<b>6,244.10</b>	<b>75,623.01</b>
Load Waste Material	33,896.9400	LCY	47,196.53	5,663.58	4,719.65	11,799.13	6,244.10	75,623.01
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>33,896.9400</b>	<b>LCY</b>	<b>139,496.85</b>	<b>16,739.62</b>	<b>13,949.69</b>	<b>34,874.21</b>	<b>18,455.43</b>	<b>223,515.80</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	33,896.9400	LCY	139,496.85	16,739.62	13,949.69	34,874.21	18,455.43	223,515.80
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>6.0900</b>	<b>ACR</b>	<b>525,997.22</b>	<b>63,119.67</b>	<b>52,599.72</b>	<b>131,499.30</b>	<b>69,589.43</b>	<b>842,805.34</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>497,837.37</b>	<b>59,740.48</b>	<b>49,783.74</b>	<b>124,459.34</b>	<b>65,863.88</b>	<b>797,684.81</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	164.4300	EA	20,549.86	2,465.98	2,054.99	5,137.46	2,718.75	32,927.04
Delivery - Cottonwood Trees	164.4300	EA	1,141.33	136.96	114.13	285.33	151.00	1,828.75
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	29,475.6000	EA	389,813.89	46,777.67	38,981.39	97,453.47	51,572.38	624,598.80
Delivery - Coyote Willows	29,475.6000	EA	51,960.21	6,235.23	5,196.02	12,990.05	6,874.34	83,255.85
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	334.9500	EA	32,047.15	3,845.66	3,204.72	8,011.79	4,239.84	51,349.15
Delivery - Gooding's Willow Trees	334.9500	EA	2,324.92	278.99	232.49	581.23	307.59	3,725.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>20,060.02</b>	<b>2,407.20</b>	<b>2,006.00</b>	<b>5,015.01</b>	<b>2,653.94</b>	<b>32,142.18</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	377.5800	EA	17,730.40	2,127.65	1,773.04	4,432.60	2,345.73	28,409.42

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Shrubs	377.5800	EA	2,329.62	279.55	232.96	582.41	308.21	3,732.75
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>8,099.83</b>	<b>971.98</b>	<b>809.98</b>	<b>2,024.96</b>	<b>1,071.61</b>	<b>12,978.35</b>
PLUGS	2,131.5000	EA	6,747.14	809.66	674.71	1,686.79	892.65	10,810.95
Delivery - PLUGS	2,131.5000	EA	1,352.68	162.32	135.27	338.17	178.96	2,167.40
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,748.90</b>	<b>0.00</b>	<b>0.00</b>	<b>687.23</b>	<b>1,010.91</b>	<b>4,447.04</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>916.30</b>	<b>0.00</b>	<b>0.00</b>	<b>229.08</b>	<b>336.97</b>	<b>1,482.35</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3045</b>	<b>ACR</b>	<b>916.30</b>	<b>0.00</b>	<b>0.00</b>	<b>229.08</b>	<b>336.97</b>	<b>1,482.35</b>
VEG REMOVAL ABOVE GROUND	0.3045	ACR	175.66	0.00	0.00	43.91	64.60	284.17
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.6090	ACR	740.64	0.00	0.00	185.16	272.37	1,198.18
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,832.60</b>	<b>0.00</b>	<b>0.00</b>	<b>458.15</b>	<b>673.94</b>	<b>2,964.69</b>
Total O&M for the First Year Dollars	2.0000	EA	1,832.60	0.00	0.00	458.15	673.94	2,964.69
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>36.5000</b>	<b>ACR</b>	<b>1,063,998.26</b>	<b>118,580.41</b>	<b>98,817.01</b>	<b>265,999.56</b>	<b>158,620.71</b>	<b>1,706,015.95</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>36.5000</b>	<b>ACR</b>	<b>214,740.48</b>	<b>25,768.86</b>	<b>21,474.05</b>	<b>53,685.12</b>	<b>28,410.17</b>	<b>344,078.67</b>
VEG REMOVAL ABOVE GROUND	36.5000	ACR	41,190.00	4,942.80	4,119.00	10,297.50	5,449.44	65,998.73
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	73.0000	ACR	173,550.49	20,826.06	17,355.05	43,387.62	22,960.73	278,079.94
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>36.5000</b>	<b>ACR</b>	<b>773,429.62</b>	<b>92,811.55</b>	<b>77,342.96</b>	<b>193,357.41</b>	<b>102,324.74</b>	<b>1,239,266.28</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>350,456.29</b>	<b>42,054.75</b>	<b>35,045.63</b>	<b>87,614.07</b>	<b>46,365.37</b>	<b>561,536.11</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,095.0000	EA	136,849.08	16,421.89	13,684.91	34,212.27	18,105.13	219,273.29



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Cottonwood Trees	1,095.0000	EA	7,600.51	912.06	760.05	1,900.13	1,005.55	12,178.30
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	2,007.5000	EA	192,072.41	23,048.69	19,207.24	48,018.10	25,411.18	307,757.63
Delivery - Gooding's Willow Trees	2,007.5000	EA	13,934.28	1,672.11	1,393.43	3,483.57	1,843.50	22,326.89
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>232,700.10</b>	<b>27,924.01</b>	<b>23,270.01</b>	<b>58,175.03</b>	<b>30,786.22</b>	<b>372,855.38</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	4,380.0000	EA	205,676.05	24,681.13	20,567.61	51,419.01	27,210.94	329,554.74
Delivery - Shrubs	4,380.0000	EA	27,024.05	3,242.89	2,702.41	6,756.01	3,575.28	43,300.64
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>7.3000</b>	<b>ACR</b>	<b>33,596.26</b>	<b>4,031.55</b>	<b>3,359.63</b>	<b>8,399.07</b>	<b>4,444.79</b>	<b>53,831.29</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	7.3000	ACR	33,596.26	4,031.55	3,359.63	8,399.07	4,444.79	53,831.29
<b>Watering</b>	<b>36.5000</b>	<b>ACR</b>	<b>156,676.97</b>	<b>18,801.24</b>	<b>15,667.70</b>	<b>39,169.24</b>	<b>20,728.36</b>	<b>251,043.51</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	182.5000	ACR	88,627.07	10,635.25	8,862.71	22,156.77	11,725.36	142,007.16
(Note: Water 5 times in the contract life.)								
Travel Time	365.0000	EA	68,049.90	8,165.99	6,804.99	17,012.47	9,003.00	109,036.35
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>75,828.15</b>	<b>0.00</b>	<b>0.00</b>	<b>18,957.04</b>	<b>27,885.80</b>	<b>122,670.99</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>25,276.05</b>	<b>0.00</b>	<b>0.00</b>	<b>6,319.01</b>	<b>9,295.27</b>	<b>40,890.33</b>
<b>Treat-Retreat-Reveg</b>	<b>1.8250</b>	<b>ACR</b>	<b>25,276.05</b>	<b>0.00</b>	<b>0.00</b>	<b>6,319.01</b>	<b>9,295.27</b>	<b>40,890.33</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.8250</b>	<b>ACR</b>	<b>5,491.79</b>	<b>0.00</b>	<b>0.00</b>	<b>1,372.95</b>	<b>2,019.61</b>	<b>8,884.35</b>
VEG REMOVAL ABOVE GROUND	1.8250	ACR	1,052.80	0.00	0.00	263.20	387.17	1,703.16
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.6500	ACR	4,438.99	0.00	0.00	1,109.75	1,632.44	7,181.18
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Revegetation</b>	<b>1.8250</b>	<b>ACR</b>	<b>19,784.26</b>	<b>0.00</b>	<b>0.00</b>	<b>4,946.07</b>	<b>7,275.66</b>	<b>32,005.99</b>
<b>Tree Plantings</b>	<b>1.8250</b>	<b>ACR</b>	<b>8,966.34</b>	<b>0.00</b>	<b>0.00</b>	<b>2,241.59</b>	<b>3,297.37</b>	<b>14,505.30</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	55.0000	EA	3,518.60	0.00	0.00	879.65	1,293.97	5,692.22
Delivery - Cottonwood Trees	55.0000	EA	195.26	0.00	0.00	48.81	71.81	315.88
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	100.0000	EA	4,897.46	0.00	0.00	1,224.37	1,801.04	7,922.87
Delivery - Gooding's Willow Trees	100.0000	EA	355.02	0.00	0.00	88.75	130.56	574.33
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,954.32</b>	<b>0.00</b>	<b>0.00</b>	<b>1,488.58</b>	<b>2,189.70</b>	<b>9,632.61</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	219.0000	EA	5,263.22	0.00	0.00	1,315.81	1,935.55	8,514.58
Delivery - Shrubs	219.0000	EA	691.10	0.00	0.00	172.78	254.15	1,118.03
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3650</b>	<b>ACR</b>	<b>859.39</b>	<b>0.00</b>	<b>0.00</b>	<b>214.85</b>	<b>316.04</b>	<b>1,390.29</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3650	ACR	859.39	0.00	0.00	214.85	316.04	1,390.29
<b>Watering</b>	<b>1.8250</b>	<b>ACR</b>	<b>4,004.20</b>	<b>0.00</b>	<b>0.00</b>	<b>1,001.05</b>	<b>1,472.54</b>	<b>6,477.79</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	9.1250	ACR	2,265.11	0.00	0.00	566.28	832.99	3,664.38
(Note: Water 5 times in the contract life.)								
Travel Time	18.2500	EA	1,739.09	0.00	0.00	434.77	639.55	2,813.41
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>50,552.10</b>	<b>0.00</b>	<b>0.00</b>	<b>12,638.03</b>	<b>18,590.53</b>	<b>81,780.66</b>
Total O&M for the First Year Dollars	2.0000	EA	50,552.10	0.00	0.00	12,638.03	18,590.53	81,780.66
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>35,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8,750.00</b>	<b>12,871.25</b>	<b>56,621.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Annual Site Assessment Cost	10.0000	YR	35,000.00	0.00	0.00	8,750.00	12,871.25	56,621.25
(Note: This cost was provided by the environmental section. The cost totaled \$3,500.00 per year for a total of 10 years =)								
<b>Project ID #9</b>	<b>1.0000</b>	<b>LS</b>	<b>603,669.70</b>	<b>68,539.41</b>	<b>57,116.18</b>	<b>150,917.43</b>	<b>87,519.49</b>	<b>967,762.21</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>603,669.70</b>	<b>68,539.41</b>	<b>57,116.18</b>	<b>150,917.43</b>	<b>87,519.49</b>	<b>967,762.21</b>
<b>Swale</b>	<b>1.1500</b>	<b>ACR</b>	<b>189,247.94</b>	<b>22,207.64</b>	<b>18,506.36</b>	<b>47,311.98</b>	<b>26,022.69</b>	<b>303,296.62</b>
(Note: Assume an average 3 ft depth from existing grade. )								
<b>Vegetation Removal</b>	<b>927.6667</b>	<b>LCY</b>	<b>17,634.72</b>	<b>2,116.17</b>	<b>1,763.47</b>	<b>4,408.68</b>	<b>2,333.07</b>	<b>28,256.12</b>
(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)								
<b>Clearing</b>	<b>927.6667</b>	<b>LCY</b>	<b>4,169.69</b>	<b>500.36</b>	<b>416.97</b>	<b>1,042.42</b>	<b>551.65</b>	<b>6,681.09</b>
VEG REMOVAL ABOVE GROUND	1.1500	ACR	1,008.54	121.03	100.85	252.14	133.43	1,615.99
Clearing Large Site	927.6667	LCY	3,161.14	379.34	316.11	790.29	418.22	5,065.10
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>1,066.8167</b>	<b>LCY</b>	<b>13,465.04</b>	<b>1,615.80</b>	<b>1,346.50</b>	<b>3,366.26</b>	<b>1,781.42</b>	<b>21,575.03</b>
(Note: Haul to Waste: Avg Haul - 5 miles)								
Load, Haul and Dispose	1,066.8167	LCY	13,465.04	1,615.80	1,346.50	3,366.26	1,781.42	21,575.03
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>5,566.0000</b>	<b>BCY</b>	<b>27,333.63</b>	<b>3,280.04</b>	<b>2,733.36</b>	<b>6,833.41</b>	<b>3,616.24</b>	<b>43,796.68</b>
Excavation, Random	5,566.0000	CY	27,333.63	3,280.04	2,733.36	6,833.41	3,616.24	43,796.68
<b>Rough Grading</b>	<b>5,566.0000</b>	<b>SY</b>	<b>2,756.37</b>	<b>330.76</b>	<b>275.64</b>	<b>689.09</b>	<b>364.67</b>	<b>4,416.54</b>
Rough Grading	5,566.0000	SY	2,756.37	330.76	275.64	689.09	364.67	4,416.54
<b>Compaction</b>	<b>1,855.3333</b>	<b>ECY</b>	<b>2,758.59</b>	<b>331.03</b>	<b>275.86</b>	<b>689.65</b>	<b>364.96</b>	<b>4,420.09</b>
Compaction	1,855.3333	ECY	2,758.59	331.03	275.86	689.65	364.96	4,420.09
<b>Load/Handle Waste Material</b>	<b>6,400.9000</b>	<b>LCY</b>	<b>8,912.32</b>	<b>1,069.48</b>	<b>891.23</b>	<b>2,228.08</b>	<b>1,179.10</b>	<b>14,280.21</b>
Load Waste Material	6,400.9000	LCY	8,912.32	1,069.48	891.23	2,228.08	1,179.10	14,280.21
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>6,400.9000</b>	<b>LCY</b>	<b>26,341.77</b>	<b>3,161.01</b>	<b>2,634.18</b>	<b>6,585.44</b>	<b>3,485.02</b>	<b>42,207.42</b>
(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)								
Haul Waste Material	6,400.9000	LCY	26,341.77	3,161.01	2,634.18	6,585.44	3,485.02	42,207.42

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<p>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</p>								
<b>Revegetation</b>	<b>1.1500</b>	<b>ACR</b>	<b>99,326.24</b>	<b>11,919.15</b>	<b>9,932.62</b>	<b>24,831.56</b>	<b>13,140.86</b>	<b>159,150.43</b>
<p>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</p>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>94,008.70</b>	<b>11,281.04</b>	<b>9,400.87</b>	<b>23,502.17</b>	<b>12,437.35</b>	<b>150,630.14</b>
<p>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</p>								
Cottonwood Trees	31.0500	EA	3,880.52	465.66	388.05	970.13	513.39	6,217.75
Delivery - Cottonwood Trees	31.0500	EA	215.52	25.86	21.55	53.88	28.51	345.33
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
Coyote Willows	5,566.0000	EA	73,610.18	8,833.22	7,361.02	18,402.54	9,738.63	117,945.59
Delivery - Coyote Willows	5,566.0000	EA	9,811.86	1,177.42	981.19	2,452.97	1,298.11	15,721.55
<p>(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)</p>								
Gooding's Willows	63.2500	EA	6,051.60	726.19	605.16	1,512.90	800.63	9,696.47
Delivery - Gooding's Willow Trees	63.2500	EA	439.03	52.68	43.90	109.76	58.08	703.45
<p>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</p>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,788.02</b>	<b>454.56</b>	<b>378.80</b>	<b>947.00</b>	<b>501.15</b>	<b>6,069.54</b>
<p>(Note: Assume 62 shrubs per acre.)</p>								
Shrubs	71.3000	EA	3,348.11	401.77	334.81	837.03	442.95	5,364.67
Delivery - Shrubs	71.3000	EA	439.91	52.79	43.99	109.98	58.20	704.87
<p>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</p>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>1,529.52</b>	<b>183.54</b>	<b>152.95</b>	<b>382.38</b>	<b>202.36</b>	<b>2,450.76</b>
PLUGS	402.5000	EA	1,274.09	152.89	127.41	318.52	168.56	2,041.48
Delivery - PLUGS	402.5000	EA	255.43	30.65	25.54	63.86	33.79	409.28
<p>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</p>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>4,184.29</b>	<b>0.00</b>	<b>0.00</b>	<b>1,046.07</b>	<b>1,538.77</b>	<b>6,769.13</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>173.03</b>	<b>0.00</b>	<b>0.00</b>	<b>43.26</b>	<b>63.63</b>	<b>279.92</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0575</b>	<b>ACR</b>	<b>173.03</b>	<b>0.00</b>	<b>0.00</b>	<b>43.26</b>	<b>63.63</b>	<b>279.92</b>
VEG REMOVAL ABOVE GROUND	0.0575	ACR	33.17	0.00	0.00	8.29	12.20	53.66
<small>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</small>								
Exotic Species Removal Herbicide Treatment	0.1150	ACR	139.86	0.00	0.00	34.96	51.43	226.26
<small>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</small>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,011.26</b>	<b>0.00</b>	<b>0.00</b>	<b>1,002.82</b>	<b>1,475.14</b>	<b>6,489.22</b>
Total O&M for the First Year Dollars	2.0000	EA	4,011.26	0.00	0.00	1,002.82	1,475.14	6,489.22
<small>(Note: This will happen once every three years for a total of three times in 10years.)</small>								
<b>Treat-Retreat-Reveg</b>	<b>7.7000</b>	<b>ACR</b>	<b>224,508.96</b>	<b>25,015.59</b>	<b>20,846.33</b>	<b>56,127.24</b>	<b>33,480.49</b>	<b>359,978.61</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>7.7000</b>	<b>ACR</b>	<b>45,301.42</b>	<b>5,436.17</b>	<b>4,530.14</b>	<b>11,325.35</b>	<b>5,993.38</b>	<b>72,586.46</b>
VEG REMOVAL ABOVE GROUND	7.7000	ACR	8,689.40	1,042.73	868.94	2,172.35	1,149.61	13,923.02
<small>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</small>								
Exotic Species Removal Herbicide Treatment	15.4000	ACR	36,612.02	4,393.44	3,661.20	9,153.01	4,843.77	58,663.44
<small>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</small>								
<b>Revegetation</b>	<b>7.7000</b>	<b>ACR</b>	<b>163,161.87</b>	<b>19,579.42</b>	<b>16,316.19</b>	<b>40,790.47</b>	<b>21,586.31</b>	<b>261,434.26</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>73,931.87</b>	<b>8,871.82</b>	<b>7,393.19</b>	<b>18,482.97</b>	<b>9,781.19</b>	<b>118,461.04</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	231.0000	EA	28,869.53	3,464.34	2,886.95	7,217.38	3,819.44	46,257.65
Delivery - Cottonwood Trees	231.0000	EA	1,603.40	192.41	160.34	400.85	212.13	2,569.12
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
Gooding's Willows	423.5000	EA	40,519.39	4,862.33	4,051.94	10,129.85	5,360.71	64,924.21
Delivery - Gooding's Willow Trees	423.5000	EA	2,939.56	352.75	293.96	734.89	388.90	4,710.06
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>49,090.16</b>	<b>5,890.82</b>	<b>4,909.02</b>	<b>12,272.54</b>	<b>6,494.63</b>	<b>78,657.16</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Shrubs	924.0000	EA	43,389.20	5,206.70	4,338.92	10,847.30	5,740.39	69,522.51
Delivery - Shrubs	924.0000	EA	5,700.96	684.12	570.10	1,425.24	754.24	9,134.65
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.5400</b>	<b>ACR</b>	<b>7,087.43</b>	<b>850.49</b>	<b>708.74</b>	<b>1,771.86</b>	<b>937.67</b>	<b>11,356.19</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	1.5400	ACR	7,087.43	850.49	708.74	1,771.86	937.67	11,356.19
<b>Watering</b>	<b>7.7000</b>	<b>ACR</b>	<b>33,052.40</b>	<b>3,966.29</b>	<b>3,305.24</b>	<b>8,263.10</b>	<b>4,372.83</b>	<b>52,959.86</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	38.5000	ACR	18,696.67	2,243.60	1,869.67	4,674.17	2,473.57	29,957.67
(Note: Water 5 times in the contract life.)								
Travel Time	77.0000	EA	14,355.73	1,722.69	1,435.57	3,588.93	1,899.26	23,002.19
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>16,045.68</b>	<b>0.00</b>	<b>0.00</b>	<b>4,011.42</b>	<b>5,900.80</b>	<b>25,957.90</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>5,348.56</b>	<b>0.00</b>	<b>0.00</b>	<b>1,337.14</b>	<b>1,966.93</b>	<b>8,652.63</b>
<b>Treat-Retreat-Reveg</b>	<b>0.3850</b>	<b>ACR</b>	<b>5,348.56</b>	<b>0.00</b>	<b>0.00</b>	<b>1,337.14</b>	<b>1,966.93</b>	<b>8,652.63</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3850</b>	<b>ACR</b>	<b>1,158.54</b>	<b>0.00</b>	<b>0.00</b>	<b>289.64</b>	<b>426.05</b>	<b>1,874.23</b>
VEG REMOVAL ABOVE GROUND	0.3850	ACR	222.10	0.00	0.00	55.52	81.68	359.30
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.7700	ACR	936.45	0.00	0.00	234.11	344.38	1,514.93
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.3850</b>	<b>ACR</b>	<b>4,190.02</b>	<b>0.00</b>	<b>0.00</b>	<b>1,047.50</b>	<b>1,540.88</b>	<b>6,778.40</b>
<b>Tree Plantings</b>	<b>0.3850</b>	<b>ACR</b>	<b>1,913.32</b>	<b>0.00</b>	<b>0.00</b>	<b>478.33</b>	<b>703.62</b>	<b>3,095.27</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	12.0000	EA	767.70	0.00	0.00	191.92	282.32	1,241.94
Delivery - Cottonwood Trees	12.0000	EA	42.60	0.00	0.00	10.65	15.67	68.92
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	21.0000	EA	1,028.47	0.00	0.00	257.12	378.22	1,663.80

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	21.0000	EA	74.55	0.00	0.00	18.64	27.42	120.61
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,250.68</b>	<b>0.00</b>	<b>0.00</b>	<b>312.67</b>	<b>459.94</b>	<b>2,023.29</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	46.0000	EA	1,105.52	0.00	0.00	276.38	406.55	1,788.45
Delivery - Shrubs	46.0000	EA	145.16	0.00	0.00	36.29	53.38	234.84
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0770</b>	<b>ACR</b>	<b>181.30</b>	<b>0.00</b>	<b>0.00</b>	<b>45.32</b>	<b>66.67</b>	<b>293.29</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0770	ACR	181.30	0.00	0.00	45.32	66.67	293.29
<b>Watering</b>	<b>0.3850</b>	<b>ACR</b>	<b>844.72</b>	<b>0.00</b>	<b>0.00</b>	<b>211.18</b>	<b>310.65</b>	<b>1,366.55</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	1.9250	ACR	477.85	0.00	0.00	119.46	175.73	773.03
(Note: Water 5 times in the contract life.)								
Travel Time	3.8500	EA	366.88	0.00	0.00	91.72	134.92	593.51
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,697.12</b>	<b>0.00</b>	<b>0.00</b>	<b>2,674.28</b>	<b>3,933.87</b>	<b>17,305.27</b>
Total O&M for the First Year Dollars	2.0000	EA	10,697.12	0.00	0.00	2,674.28	3,933.87	17,305.27
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wetland (Water Feature)</b>	<b>1.0700</b>	<b>ACR</b>	<b>179,912.80</b>	<b>21,316.18</b>	<b>17,763.48</b>	<b>44,978.20</b>	<b>24,338.81</b>	<b>288,309.48</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>863.1333</b>	<b>LCY</b>	<b>16,407.96</b>	<b>1,968.96</b>	<b>1,640.80</b>	<b>4,101.99</b>	<b>2,170.77</b>	<b>26,290.47</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>863.1333</b>	<b>LCY</b>	<b>3,879.62</b>	<b>465.55</b>	<b>387.96</b>	<b>969.91</b>	<b>513.27</b>	<b>6,216.32</b>
VEG REMOVAL ABOVE GROUND	1.0700	ACR	938.39	112.61	93.84	234.60	124.15	1,503.57
Clearing Large Site	863.1333	LCY	2,941.24	352.95	294.12	735.31	389.13	4,712.74
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>992.6033</b>	<b>LCY</b>	<b>12,528.34</b>	<b>1,503.40</b>	<b>1,252.83</b>	<b>3,132.08</b>	<b>1,657.50</b>	<b>20,074.16</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load, Haul and Dispose	992.6033	LCY	12,528.34	1,503.40	1,252.83	3,132.08	1,657.50	20,074.16
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>8,631.3333</b>	<b>BCY</b>	<b>42,386.94</b>	<b>5,086.43</b>	<b>4,238.69</b>	<b>10,596.73</b>	<b>5,607.79</b>	<b>67,916.59</b>
Excavation, Random	8,631.3333	CY	42,386.94	5,086.43	4,238.69	10,596.73	5,607.79	67,916.59
<b>Rough Grading</b>	<b>5,178.8000</b>	<b>SY</b>	<b>2,564.63</b>	<b>307.76</b>	<b>256.46</b>	<b>641.16</b>	<b>339.30</b>	<b>4,109.30</b>
Rough Grading	5,178.8000	SY	2,564.63	307.76	256.46	641.16	339.30	4,109.30
<b>Compaction</b>	<b>1,726.2667</b>	<b>ECY</b>	<b>2,566.69</b>	<b>308.00</b>	<b>256.67</b>	<b>641.67</b>	<b>339.57</b>	<b>4,112.61</b>
Compaction	1,726.2667	ECY	2,566.69	308.00	256.67	641.67	339.57	4,112.61
<b>Load/Handle Waste Material</b>	<b>9,926.0333</b>	<b>LCY</b>	<b>13,820.55</b>	<b>1,658.47</b>	<b>1,382.06</b>	<b>3,455.14</b>	<b>1,828.46</b>	<b>22,144.67</b>
Load Waste Material	9,926.0333	LCY	13,820.55	1,658.47	1,382.06	3,455.14	1,828.46	22,144.67
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>9,926.0333</b>	<b>LCY</b>	<b>40,848.83</b>	<b>4,901.86</b>	<b>4,084.88</b>	<b>10,212.21</b>	<b>5,404.30</b>	<b>65,452.08</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	9,926.0333	LCY	40,848.83	4,901.86	4,084.88	10,212.21	5,404.30	65,452.08
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>1.0700</b>	<b>ACR</b>	<b>59,039.24</b>	<b>7,084.71</b>	<b>5,903.92</b>	<b>14,759.81</b>	<b>7,810.89</b>	<b>94,598.58</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>59,039.24</b>	<b>7,084.71</b>	<b>5,903.92</b>	<b>14,759.81</b>	<b>7,810.89</b>	<b>94,598.58</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	15,536.4000	EA	49,179.60	5,901.55	4,917.96	12,294.90	6,506.46	78,800.47
Delivery - PLUGS	15,536.4000	EA	9,859.64	1,183.16	985.96	2,464.91	1,304.43	15,798.11
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,277.96</b>	<b>0.00</b>	<b>0.00</b>	<b>569.49</b>	<b>837.72</b>	<b>3,685.18</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>759.32</b>	<b>0.00</b>	<b>0.00</b>	<b>189.83</b>	<b>279.24</b>	<b>1,228.40</b>
<b>Treat-Retreat-Reveg</b>	<b>0.0535</b>	<b>ACR</b>	<b>759.32</b>	<b>0.00</b>	<b>0.00</b>	<b>189.83</b>	<b>279.24</b>	<b>1,228.40</b>



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0535</b>	<b>ACR</b>	<b>160.99</b>	<b>0.00</b>	<b>0.00</b>	<b>40.25</b>	<b>59.20</b>	<b>260.45</b>
VEG REMOVAL ABOVE GROUND	0.0535	ACR	30.86	0.00	0.00	7.72	11.35	49.93
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.1070	ACR	130.13	0.00	0.00	32.53	47.86	210.52
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.0535</b>	<b>ACR</b>	<b>598.33</b>	<b>0.00</b>	<b>0.00</b>	<b>149.58</b>	<b>220.04</b>	<b>967.95</b>
<b>Tree Plantings</b>	<b>0.0535</b>	<b>ACR</b>	<b>292.62</b>	<b>0.00</b>	<b>0.00</b>	<b>73.16</b>	<b>107.61</b>	<b>473.39</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2.0000	EA	127.95	0.00	0.00	31.99	47.05	206.99
Delivery - Cottonwood Trees	2.0000	EA	7.10	0.00	0.00	1.78	2.61	11.49
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	3.0000	EA	146.92	0.00	0.00	36.73	54.03	237.69
Delivery - Gooding's Willow Trees	3.0000	EA	10.65	0.00	0.00	2.66	3.92	17.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>163.13</b>	<b>0.00</b>	<b>0.00</b>	<b>40.78</b>	<b>59.99</b>	<b>263.91</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	6.0000	EA	144.20	0.00	0.00	36.05	53.03	233.28
Delivery - Shrubs	6.0000	EA	18.93	0.00	0.00	4.73	6.96	30.63
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0107</b>	<b>ACR</b>	<b>25.19</b>	<b>0.00</b>	<b>0.00</b>	<b>6.30</b>	<b>9.26</b>	<b>40.76</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0107	ACR	25.19	0.00	0.00	6.30	9.26	40.76
<b>Watering</b>	<b>0.0535</b>	<b>ACR</b>	<b>117.38</b>	<b>0.00</b>	<b>0.00</b>	<b>29.35</b>	<b>43.17</b>	<b>189.90</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.2675	ACR	66.40	0.00	0.00	16.60	24.42	107.42
(Note: Water 5 times in the contract life.)								
Travel Time	0.5350	EA	50.98	0.00	0.00	12.75	18.75	82.48
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,518.64</b>	<b>0.00</b>	<b>0.00</b>	<b>379.66</b>	<b>558.48</b>	<b>2,456.78</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Total O&M for the First Year Dollars	2.0000	EA	1,518.64	0.00	0.00	379.66	558.48	2,456.78
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>10,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2,500.00</b>	<b>3,677.50</b>	<b>16,177.50</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	10,000.00	0.00	0.00	2,500.00	3,677.50	16,177.50
(Note: This cost was provided by the environmental section. The cost totaled \$1,000.00 per year for a total of 10 years =)								
<b>Project ID #11</b>	<b>1.0000</b>	<b>LS</b>	<b>2,748,982.57</b>	<b>315,802.55</b>	<b>263,168.79</b>	<b>687,245.64</b>	<b>391,307.43</b>	<b>4,406,506.97</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>2,748,982.57</b>	<b>315,802.55</b>	<b>263,168.79</b>	<b>687,245.64</b>	<b>391,307.43</b>	<b>4,406,506.97</b>
<b>Swale</b>	<b>6.5200</b>	<b>ACR</b>	<b>1,052,173.42</b>	<b>125,907.65</b>	<b>104,923.04</b>	<b>263,043.36</b>	<b>139,895.47</b>	<b>1,685,942.95</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>5,259.4667</b>	<b>LCY</b>	<b>99,981.21</b>	<b>11,997.75</b>	<b>9,998.12</b>	<b>24,995.30</b>	<b>13,227.51</b>	<b>160,199.89</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>5,259.4667</b>	<b>LCY</b>	<b>23,640.31</b>	<b>2,836.84</b>	<b>2,364.03</b>	<b>5,910.08</b>	<b>3,127.61</b>	<b>37,878.87</b>
VEG REMOVAL ABOVE GROUND	6.5200	ACR	5,718.01	686.16	571.80	1,429.50	756.49	9,161.97
Clearing Large Site	5,259.4667	LCY	17,922.30	2,150.68	1,792.23	4,480.57	2,371.12	28,716.90
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>6,048.3867</b>	<b>LCY</b>	<b>76,340.90</b>	<b>9,160.91</b>	<b>7,634.09</b>	<b>19,085.23</b>	<b>10,099.90</b>	<b>122,321.02</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	6,048.3867	LCY	76,340.90	9,160.91	7,634.09	19,085.23	10,099.90	122,321.02
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>31,556.8000</b>	<b>BCY</b>	<b>154,969.82</b>	<b>18,596.38</b>	<b>15,496.98</b>	<b>38,742.45</b>	<b>20,502.51</b>	<b>248,308.14</b>
Excavation, Random	31,556.8000	CY	154,969.82	18,596.38	15,496.98	38,742.45	20,502.51	248,308.14
<b>Rough Grading</b>	<b>31,556.8000</b>	<b>SY</b>	<b>15,627.44</b>	<b>1,875.29</b>	<b>1,562.74</b>	<b>3,906.86</b>	<b>2,067.51</b>	<b>25,039.84</b>
Rough Grading	31,556.8000	SY	15,627.44	1,875.29	1,562.74	3,906.86	2,067.51	25,039.84
<b>Compaction</b>	<b>10,518.9333</b>	<b>ECY</b>	<b>15,640.02</b>	<b>1,876.80</b>	<b>1,564.00</b>	<b>3,910.00</b>	<b>2,069.17</b>	<b>25,060.00</b>
Compaction	10,518.9333	ECY	15,640.02	1,876.80	1,564.00	3,910.00	2,069.17	25,060.00
<b>Load/Handle Waste Material</b>	<b>36,290.3200</b>	<b>LCY</b>	<b>50,528.97</b>	<b>6,063.48</b>	<b>5,052.90</b>	<b>12,632.24</b>	<b>6,684.98</b>	<b>80,962.56</b>

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load Waste Material	36,290.3200	LCY	50,528.97	6,063.48	5,052.90	12,632.24	6,684.98	80,962.56
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>36,290.3200</b>	<b>LCY</b>	<b>149,346.38</b>	<b>17,921.57</b>	<b>14,934.64</b>	<b>37,336.60</b>	<b>19,758.53</b>	<b>239,297.71</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	36,290.3200	LCY	149,346.38	17,921.57	14,934.64	37,336.60	19,758.53	239,297.71
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>6.5200</b>	<b>ACR</b>	<b>563,136.59</b>	<b>67,576.39</b>	<b>56,313.66</b>	<b>140,784.15</b>	<b>74,502.97</b>	<b>902,313.76</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>532,988.45</b>	<b>63,958.61</b>	<b>53,298.84</b>	<b>133,247.11</b>	<b>70,514.37</b>	<b>854,007.39</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	176.0400	EA	22,000.83	2,640.10	2,200.08	5,500.21	2,910.71	35,251.94
Delivery - Cottonwood Trees	176.0400	EA	1,221.91	146.63	122.19	305.48	161.66	1,957.87
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	31,556.8000	EA	417,337.70	50,080.52	41,733.77	104,334.42	55,213.78	668,700.19
Delivery - Coyote Willows	31,556.8000	EA	55,629.00	6,675.48	5,562.90	13,907.25	7,359.72	89,134.34
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	358.6000	EA	34,309.92	4,117.19	3,430.99	8,577.48	4,539.20	54,974.79
Delivery - Gooding's Willow Trees	358.6000	EA	2,489.08	298.69	248.91	622.27	329.31	3,988.26
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>21,476.41</b>	<b>2,577.17</b>	<b>2,147.64</b>	<b>5,369.10</b>	<b>2,841.33</b>	<b>34,411.66</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	404.2400	EA	18,982.30	2,277.88	1,898.23	4,745.58	2,511.36	30,415.34
Delivery - Shrubs	404.2400	EA	2,494.11	299.29	249.41	623.53	329.97	3,996.31
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>8,671.74</b>	<b>1,040.61</b>	<b>867.17</b>	<b>2,167.93</b>	<b>1,147.27</b>	<b>13,894.72</b>
PLUGS	2,282.0000	EA	7,223.54	866.83	722.35	1,805.89	955.67	11,574.28
Delivery - PLUGS	2,282.0000	EA	1,448.19	173.78	144.82	362.05	191.60	2,320.44

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</b>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,943.00</b>	<b>0.00</b>	<b>0.00</b>	<b>735.75</b>	<b>1,082.29</b>	<b>4,761.04</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>981.00</b>	<b>0.00</b>	<b>0.00</b>	<b>245.25</b>	<b>360.76</b>	<b>1,587.01</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3260</b>	<b>ACR</b>	<b>981.00</b>	<b>0.00</b>	<b>0.00</b>	<b>245.25</b>	<b>360.76</b>	<b>1,587.01</b>
VEG REMOVAL ABOVE GROUND	0.3260	ACR	188.06	0.00	0.00	47.02	69.16	304.24
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	0.6520	ACR	792.94	0.00	0.00	198.23	291.60	1,282.78
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,962.00</b>	<b>0.00</b>	<b>0.00</b>	<b>490.50</b>	<b>721.53</b>	<b>3,174.03</b>
Total O&M for the First Year Dollars	2.0000	EA	1,962.00	0.00	0.00	490.50	721.53	3,174.03
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>35.5200</b>	<b>ACR</b>	<b>1,005,301.92</b>	<b>115,396.61</b>	<b>96,163.84</b>	<b>251,325.48</b>	<b>143,282.02</b>	<b>1,611,469.87</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>35.5200</b>	<b>ACR</b>	<b>208,974.85</b>	<b>25,076.98</b>	<b>20,897.48</b>	<b>52,243.71</b>	<b>27,647.37</b>	<b>334,840.40</b>
VEG REMOVAL ABOVE GROUND	35.5200	ACR	40,084.07	4,810.09	4,008.41	10,021.02	5,303.12	64,226.71
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	71.0400	ACR	168,890.77	20,266.89	16,889.08	42,222.69	22,344.25	270,613.69
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>35.5200</b>	<b>ACR</b>	<b>752,663.57</b>	<b>90,319.63</b>	<b>75,266.36</b>	<b>188,165.89</b>	<b>99,577.39</b>	<b>1,205,992.83</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>341,046.78</b>	<b>40,925.61</b>	<b>34,104.68</b>	<b>85,261.69</b>	<b>45,120.49</b>	<b>546,459.25</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,065.6000	EA	133,174.78	15,980.97	13,317.48	33,293.69	17,619.02	213,385.95
Delivery - Cottonwood Trees	1,065.6000	EA	7,396.45	887.57	739.64	1,849.11	978.55	11,851.32
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	1,953.6000	EA	186,915.40	22,429.85	18,691.54	46,728.85	24,728.91	299,494.55
Delivery - Gooding's Willow Trees	1,953.6000	EA	13,560.15	1,627.22	1,356.02	3,390.04	1,794.01	21,727.43
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>226,452.27</b>	<b>27,174.27</b>	<b>22,645.23</b>	<b>56,613.07</b>	<b>29,959.63</b>	<b>362,844.47</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	4,262.4000	EA	200,153.79	24,018.46	20,015.38	50,038.45	26,480.35	320,706.42
Delivery - Shrubs	4,262.4000	EA	26,298.47	3,155.82	2,629.85	6,574.62	3,479.29	42,138.04
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>7.1040</b>	<b>ACR</b>	<b>32,694.23</b>	<b>3,923.31</b>	<b>3,269.42</b>	<b>8,173.56</b>	<b>4,325.45</b>	<b>52,385.96</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	7.1040	ACR	32,694.23	3,923.31	3,269.42	8,173.56	4,325.45	52,385.96
<b>Watering</b>	<b>35.5200</b>	<b>ACR</b>	<b>152,470.30</b>	<b>18,296.44</b>	<b>15,247.03</b>	<b>38,117.58</b>	<b>20,171.82</b>	<b>244,303.16</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	177.6000	ACR	86,247.50	10,349.70	8,624.75	21,561.87	11,410.54	138,194.36
(Note: Water 5 times in the contract life.)								
Travel Time	355.2000	EA	66,222.80	7,946.74	6,622.28	16,555.70	8,761.28	106,108.80
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>43,663.51</b>	<b>0.00</b>	<b>0.00</b>	<b>10,915.88</b>	<b>16,057.25</b>	<b>70,636.64</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>24,594.79</b>	<b>0.00</b>	<b>0.00</b>	<b>6,148.70</b>	<b>9,044.73</b>	<b>39,788.22</b>
<b>Treat-Retreat-Reveg</b>	<b>1.7760</b>	<b>ACR</b>	<b>24,594.79</b>	<b>0.00</b>	<b>0.00</b>	<b>6,148.70</b>	<b>9,044.73</b>	<b>39,788.22</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.7760</b>	<b>ACR</b>	<b>5,344.34</b>	<b>0.00</b>	<b>0.00</b>	<b>1,336.09</b>	<b>1,965.38</b>	<b>8,645.81</b>
VEG REMOVAL ABOVE GROUND	1.7760	ACR	1,024.53	0.00	0.00	256.13	376.77	1,657.43
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.5520	ACR	4,319.81	0.00	0.00	1,079.95	1,588.61	6,988.37
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.7760</b>	<b>ACR</b>	<b>19,250.44</b>	<b>0.00</b>	<b>0.00</b>	<b>4,812.61</b>	<b>7,079.35</b>	<b>31,142.41</b>
<b>Tree Plantings</b>	<b>1.7760</b>	<b>ACR</b>	<b>8,726.24</b>	<b>0.00</b>	<b>0.00</b>	<b>2,181.56</b>	<b>3,209.08</b>	<b>14,116.88</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	53.0000	EA	3,390.65	0.00	0.00	847.66	1,246.91	5,485.23
Delivery - Cottonwood Trees	53.0000	EA	188.16	0.00	0.00	47.04	69.20	304.39

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	98.0000	EA	4,799.51	0.00	0.00	1,199.88	1,765.02	7,764.41
Delivery - Gooding's Willow Trees	98.0000	EA	347.92	0.00	0.00	86.98	127.95	562.84
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,791.19</b>	<b>0.00</b>	<b>0.00</b>	<b>1,447.80</b>	<b>2,129.71</b>	<b>9,368.70</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	213.0000	EA	5,119.03	0.00	0.00	1,279.76	1,882.52	8,281.31
Delivery - Shrubs	213.0000	EA	672.17	0.00	0.00	168.04	247.19	1,087.40
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>0.3552</b>	<b>ACR</b>	<b>836.32</b>	<b>0.00</b>	<b>0.00</b>	<b>209.08</b>	<b>307.56</b>	<b>1,352.96</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3552	ACR	836.32	0.00	0.00	209.08	307.56	1,352.96
<b>Watering</b>	<b>1.7760</b>	<b>ACR</b>	<b>3,896.69</b>	<b>0.00</b>	<b>0.00</b>	<b>974.17</b>	<b>1,433.01</b>	<b>6,303.87</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	8.8800	ACR	2,204.29	0.00	0.00	551.07	810.63	3,566.00
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	17.7600	EA	1,692.40	0.00	0.00	423.10	622.38	2,737.87
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>19,068.72</b>	<b>0.00</b>	<b>0.00</b>	<b>4,767.18</b>	<b>7,012.52</b>	<b>30,848.42</b>
Total O&M for the First Year Dollars	2.0000	EA	19,068.72	0.00	0.00	4,767.18	7,012.52	30,848.42
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Bank Destabilization (Terrace Lowering)</b>	<b>1.4600</b>	<b>ACR</b>	<b>142,082.73</b>	<b>16,970.85</b>	<b>14,142.37</b>	<b>35,520.68</b>	<b>18,952.71</b>	<b>227,669.34</b>
<b>(Note: Assume three levels with 1.5' drop between levels. Therefore, weighted average depth of 2.25' from existing grade.)</b>								
<b>Vegetation Removal</b>	<b>1,177.7333</b>	<b>LCY</b>	<b>22,384.37</b>	<b>2,686.12</b>	<b>2,238.44</b>	<b>5,596.09</b>	<b>2,961.45</b>	<b>35,866.48</b>
<b>Clearing</b>	<b>1,177.7333</b>	<b>LCY</b>	<b>5,294.60</b>	<b>635.35</b>	<b>529.46</b>	<b>1,323.65</b>	<b>700.48</b>	<b>8,483.53</b>
Clearing Large Site	1,178.0000	LCY	4,014.18	481.70	401.42	1,003.55	531.08	6,431.93
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
VEG REMOVAL ABOVE GROUND	1.4600	ACR	1,280.41	153.65	128.04	320.10	169.40	2,051.61

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
<b>Haul Waste</b>	<b>1,354.3933</b>	<b>LCY</b>	<b>17,089.78</b>	<b>2,050.77</b>	<b>1,708.98</b>	<b>4,272.44</b>	<b>2,260.98</b>	<b>27,382.95</b>
Load, Haul and Dispose	1,354.0000	LCY	17,089.78	2,050.77	1,708.98	4,272.44	2,260.98	27,382.95
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>5,299.8000</b>	<b>BCY</b>	<b>21,475.86</b>	<b>2,577.10</b>	<b>2,147.59</b>	<b>5,368.96</b>	<b>2,841.26</b>	<b>34,410.76</b>
Excavation, Random	5,299.8000	BCY	21,475.86	2,577.10	2,147.59	5,368.96	2,841.26	34,410.76
(Note: 150 BCY excavated per hour (75 BCY each Dozer) x 1.15 swell = 175 LCY per hour. Keep Excavation in BCY per hour. Swell occurs in the loading and hauling.)								
<b>Rough Grading</b>	<b>7,066.4000</b>	<b>SY</b>	<b>2,624.55</b>	<b>314.95</b>	<b>262.45</b>	<b>656.14</b>	<b>347.23</b>	<b>4,205.31</b>
Rough Grading	7,066.4000	SY	2,624.55	314.95	262.45	656.14	347.23	4,205.31
<b>Compaction</b>	<b>2,355.4667</b>	<b>ECY</b>	<b>5,171.20</b>	<b>620.54</b>	<b>517.12</b>	<b>1,292.80</b>	<b>684.15</b>	<b>8,285.81</b>
Compaction	2,355.4667	ECY	5,171.20	620.54	517.12	1,292.80	684.15	8,285.81
<b>Load/Handle Waste Material</b>	<b>6,094.7700</b>	<b>LCY</b>	<b>12,545.51</b>	<b>1,505.46</b>	<b>1,254.55</b>	<b>3,136.38</b>	<b>1,659.77</b>	<b>20,101.67</b>
Load Waste Material	6,094.7700	LCY	12,545.51	1,505.46	1,254.55	3,136.38	1,659.77	20,101.67
(Note: Controlled by hauling at 175 LCY per hour)								
<b>Haul Waste Material</b>	<b>6,094.7700</b>	<b>LCY</b>	<b>26,371.87</b>	<b>3,164.62</b>	<b>2,637.19</b>	<b>6,592.97</b>	<b>3,489.00</b>	<b>42,255.65</b>
Haul Waste Material	6,094.7700	LCY	26,371.87	3,164.62	2,637.19	6,592.97	3,489.00	42,255.65
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 4 trucks = 175 lcy/hr, which is in sync with the excavation rate of (150 x 1.15 swell = aprox 175 lcy).)								
<b>Revegetation</b>	<b>1.4600</b>	<b>ACR</b>	<b>50,850.36</b>	<b>6,102.04</b>	<b>5,085.04</b>	<b>12,712.59</b>	<b>6,727.50</b>	<b>81,477.54</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>40,989.52</b>	<b>4,918.74</b>	<b>4,098.95</b>	<b>10,247.38</b>	<b>5,422.91</b>	<b>65,677.51</b>
<b>(Note: Coyote Willow is every 9 sf, but only on the top Terrace (or 30% of the total Destabilization area). Goodings Willow Trees 38 trees per acre.)</b>								
Coyote Willows	2,355.0000	EA	31,144.80	3,737.38	3,114.48	7,786.20	4,120.46	49,903.32
Delivery - Coyote Willows	2,355.0000	EA	4,151.44	498.17	415.14	1,037.86	549.24	6,651.86
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	55.4800	EA	5,308.18	636.98	530.82	1,327.05	702.27	8,505.30
Delivery - Gooding's Willow Trees	55.4800	EA	385.09	46.21	38.51	96.27	50.95	617.03
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,257.80</b>	<b>390.94</b>	<b>325.78</b>	<b>814.45</b>	<b>431.01</b>	<b>5,219.98</b>
<b>(Note: Shrub planting is for 42 per acre.)</b>								
Shrubs	61.3200	EA	2,879.46	345.54	287.95	719.87	380.95	4,613.77
Delivery - Shrubs	61.3200	EA	378.34	45.40	37.83	94.58	50.05	606.21
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0730</b>	<b>ACR</b>	<b>335.96</b>	<b>40.32</b>	<b>33.60</b>	<b>83.99</b>	<b>44.45</b>	<b>538.31</b>
<b>(Note: Seeding is only required outside of the terrace area for construction disturbance, seeding is applied at 5% of the terrace area.)</b>								
Hydro-Seeding	0.0730	ACR	335.96	40.32	33.60	83.99	44.45	538.31
<b>Watering</b>	<b>1.4600</b>	<b>ACR</b>	<b>6,267.08</b>	<b>752.05</b>	<b>626.71</b>	<b>1,566.77</b>	<b>829.13</b>	<b>10,041.74</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	7.3000	ACR	3,545.08	425.41	354.51	886.27	469.01	5,680.29
Travel Time	14.6000	EA	2,722.00	326.64	272.20	680.50	360.12	4,361.45
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>659.01</b>	<b>0.00</b>	<b>0.00</b>	<b>164.75</b>	<b>242.35</b>	<b>1,066.12</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>219.67</b>	<b>0.00</b>	<b>0.00</b>	<b>54.92</b>	<b>80.78</b>	<b>355.37</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0730</b>	<b>ACR</b>	<b>219.67</b>	<b>0.00</b>	<b>0.00</b>	<b>54.92</b>	<b>80.78</b>	<b>355.37</b>
VEG REMOVAL ABOVE GROUND	0.0730	ACR	42.11	0.00	0.00	10.53	15.49	68.13
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.1460	ACR	177.56	0.00	0.00	44.39	65.30	287.25
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>439.34</b>	<b>0.00</b>	<b>0.00</b>	<b>109.84</b>	<b>161.57</b>	<b>710.74</b>
Total O&M for the First Year Dollars	2.0000	EA	439.34	0.00	0.00	109.84	161.57	710.74
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>2.9900</b>	<b>ACR</b>	<b>471,610.15</b>	<b>52,986.14</b>	<b>44,155.12</b>	<b>117,902.54</b>	<b>69,471.41</b>	<b>756,125.36</b>
<b>High Flow Channel</b>	<b>5,009.4000</b>	<b>LF</b>	<b>471,610.15</b>	<b>52,986.14</b>	<b>44,155.12</b>	<b>117,902.54</b>	<b>69,471.41</b>	<b>756,125.36</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>2,411.9333</b>	<b>LCY</b>	<b>45,850.51</b>	<b>5,502.06</b>	<b>4,585.05</b>	<b>11,462.63</b>	<b>6,066.02</b>	<b>73,466.27</b>



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Clearing</b>	<b>2,411.9333</b>	<b>LCY</b>	<b>10,841.41</b>	<b>1,300.97</b>	<b>1,084.14</b>	<b>2,710.35</b>	<b>1,434.32</b>	<b>17,371.19</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	2,412.0000	LCY	8,219.20	986.30	821.92	2,054.80	1,087.40	13,169.62
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	2.9900	ACR	2,622.22	314.67	262.22	655.55	346.92	4,201.58
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>2,773.7233</b>	<b>LCY</b>	<b>35,009.09</b>	<b>4,201.09</b>	<b>3,500.91</b>	<b>8,752.27</b>	<b>4,631.70</b>	<b>56,095.07</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	2,773.7233	LCY	35,009.09	4,201.09	3,500.91	8,752.27	4,631.70	56,095.07
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>13,358.4000</b>	<b>BCY</b>	<b>60,872.04</b>	<b>7,304.65</b>	<b>6,087.20</b>	<b>15,218.01</b>	<b>8,053.37</b>	<b>97,535.27</b>
Channel Excavation	13,358.4000	BCY	60,872.04	7,304.65	6,087.20	15,218.01	8,053.37	97,535.27
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>15,584.8000</b>	<b>SY</b>	<b>17,810.41</b>	<b>2,137.25</b>	<b>1,781.04</b>	<b>4,452.60</b>	<b>2,356.32</b>	<b>28,537.62</b>
Rough Grading	15,584.8000	SY	17,810.41	2,137.25	1,781.04	4,452.60	2,356.32	28,537.62
<b>Compaction</b>	<b>5,194.9333</b>	<b>ECY</b>	<b>15,369.23</b>	<b>1,844.31</b>	<b>1,536.92</b>	<b>3,842.31</b>	<b>2,033.35</b>	<b>24,626.11</b>
Compaction	5,195.0000	ECY	15,369.23	1,844.31	1,536.92	3,842.31	2,033.35	24,626.11
<b>Load/Handle Waste Material</b>	<b>15,362.1600</b>	<b>LCY</b>	<b>21,389.56</b>	<b>2,566.75</b>	<b>2,138.96</b>	<b>5,347.39</b>	<b>2,829.84</b>	<b>34,272.50</b>
Load Waste Material	15,362.1600	LCY	21,389.56	2,566.75	2,138.96	5,347.39	2,829.84	34,272.50
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>15,362.1600</b>	<b>LCY</b>	<b>63,220.25</b>	<b>7,586.43</b>	<b>6,322.02</b>	<b>15,805.06</b>	<b>8,364.04</b>	<b>101,297.80</b>
Haul Waste Material	15,362.1600	LCY	63,220.25	7,586.43	6,322.02	15,805.06	8,364.04	101,297.80
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>5,009.4000</b>	<b>LF</b>	<b>217,039.18</b>	<b>26,044.70</b>	<b>21,703.92</b>	<b>54,259.80</b>	<b>28,714.28</b>	<b>347,761.88</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>167,636.97</b>	<b>20,116.44</b>	<b>16,763.70</b>	<b>41,909.24</b>	<b>22,178.37</b>	<b>268,604.71</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Cottonwood Trees	200.0000	EA	24,995.27	2,999.43	2,499.53	6,248.82	3,306.87	40,049.92
Delivery - Cottonwood Trees	200.0000	EA	1,388.22	166.59	138.82	347.06	183.66	2,224.35
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	6,679.0000	EA	88,329.57	10,599.55	8,832.96	22,082.39	11,686.00	141,530.47
Delivery - Coyote Willows	6,679.0000	EA	11,773.88	1,412.87	1,177.39	2,943.47	1,557.68	18,865.29
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	401.0000	EA	38,366.64	4,604.00	3,836.66	9,591.66	5,075.91	61,474.87
Delivery - Gooding's Willow Trees	401.0000	EA	2,783.38	334.01	278.34	695.85	368.24	4,459.82
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>18,830.16</b>	<b>2,259.62</b>	<b>1,883.02</b>	<b>4,707.54</b>	<b>2,491.23</b>	<b>30,171.56</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	401.0000	EA	18,830.16	2,259.62	1,883.02	4,707.54	2,491.23	30,171.56
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>2.9900</b>	<b>ACR</b>	<b>13,760.66</b>	<b>1,651.28</b>	<b>1,376.07</b>	<b>3,440.17</b>	<b>1,820.54</b>	<b>22,048.71</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	2.9900	ACR	13,760.66	1,651.28	1,376.07	3,440.17	1,820.54	22,048.71
<b>Watering</b>	<b>2.9900</b>	<b>ACR</b>	<b>12,834.63</b>	<b>1,540.16</b>	<b>1,283.46</b>	<b>3,208.66</b>	<b>1,698.02</b>	<b>20,564.93</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	14.9500	ACR	7,260.14	871.22	726.01	1,815.03	960.52	11,632.92
Travel Time	29.9000	EA	5,574.50	668.94	557.45	1,393.62	737.51	8,932.02
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>3,976.76</b>	<b>477.21</b>	<b>397.68</b>	<b>994.19</b>	<b>526.13</b>	<b>6,371.97</b>
PLUGS	1,046.5000	EA	3,312.64	397.52	331.26	828.16	438.26	5,307.84
Delivery - PLUGS	1,046.5000	EA	664.13	79.70	66.41	166.03	87.86	1,064.13
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>30,058.98</b>	<b>0.00</b>	<b>0.00</b>	<b>7,514.74</b>	<b>11,054.19</b>	<b>48,627.91</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1 Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>15,029.49</b>	<b>0.00</b>	<b>0.00</b>	<b>3,757.37</b>	<b>5,527.09</b>	<b>24,313.95</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>3,711.0000</b>	<b>BCY</b>	<b>11,121.26</b>	<b>0.00</b>	<b>0.00</b>	<b>2,780.32</b>	<b>4,089.84</b>	<b>17,991.42</b>
<b>(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 5,009.4' * 10'(wide) * 2' (deep)/27 = 3,710.66 BCY.)</b>								
Channel Excavation	3,711.0000	BCY	11,121.26	0.00	0.00	2,780.32	4,089.84	17,991.42
<b>Load/Handle Waste Material</b>	<b>4,267.6500</b>	<b>LCY</b>	<b>3,908.22</b>	<b>0.00</b>	<b>0.00</b>	<b>977.06</b>	<b>1,437.25</b>	<b>6,322.53</b>
Load Waste Material	4,267.6500	LCY	3,908.22	0.00	0.00	977.06	1,437.25	6,322.53
<b>(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>15,029.49</b>	<b>0.00</b>	<b>0.00</b>	<b>3,757.37</b>	<b>5,527.09</b>	<b>24,313.96</b>
Total O&M for the First Year Dollars	1.0000	EA	15,029.49	0.00	0.00	3,757.37	5,527.09	24,313.96
<b>(Note: This will happen once every five years for a total of two times in 10years.)</b>								
<b>Remove Berm</b>	<b>1.2000</b>	<b>ACR</b>	<b>40,314.34</b>	<b>4,541.30</b>	<b>3,784.41</b>	<b>10,078.58</b>	<b>5,915.19</b>	<b>64,633.82</b>
<b>remove berm and spread material in designated location</b>	<b>7,743.6000</b>	<b>BCY</b>	<b>23,238.98</b>	<b>2,788.68</b>	<b>2,323.90</b>	<b>5,809.74</b>	<b>3,074.52</b>	<b>37,235.82</b>
<b>(Note: Assumption is 1 acre is 43560 sf x 4 Height = 174,240 cft/27 = 6,453 cyd / 140 cyds per hour for construction = 46 hours per acre )</b>								
<b>Labor</b>	<b>1.0000</b>	<b>EA</b>	<b>10,066.06</b>	<b>1,207.93</b>	<b>1,006.61</b>	<b>2,516.51</b>	<b>1,331.74</b>	<b>16,128.84</b>
Equip. Operators, Medium	55.2000	HR	2,824.15	338.90	282.42	706.04	373.64	4,525.14
<b>(Note: Assumed Davis Bacon Power Equip. Operators: Group 4 (Front-end Loader))</b>								
Truck Drivers, Heavy	55.2000	HR	2,179.12	261.49	217.91	544.78	288.30	3,491.61
<b>(Note: Assumed Davis Bacon Truck Drivers: Semi-Trailer)</b>								
Equip. Operators, Medium	55.2000	HR	2,824.15	338.90	282.42	706.04	373.64	4,525.14
<b>(Note: Assumed Davis Bacon Power Equip. Operators: Group 4 (Front-end Loader))</b>								
Laborers, (Semi-Skilled)	55.2000	HR	2,238.63	268.64	223.86	559.66	296.17	3,586.95
<b>(Note: Assumed Davis Bacon Laborers: Group 3: General Laborer)</b>								
<b>Equipment</b>	<b>1.0000</b>	<b>EA</b>	<b>13,172.92</b>	<b>1,580.75</b>	<b>1,317.29</b>	<b>3,293.23</b>	<b>1,742.78</b>	<b>21,106.98</b>
TRUCK OPTION, WATER TANK, 3,000 GAL (11,356 L) (ADD 45,000 LB (20,412 KG) GVW TRUCK)	55.2000	HR	479.46	57.54	47.95	119.87	63.43	768.24
TRUCK, HIGHWAY, 45,000 LB (20,412 KG) GVW, 6X4, 3 AXLE (ADD ACCESSORIES)	55.2000	HR	2,672.06	320.65	267.21	668.02	353.51	4,281.45

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
LOADER, FRONT END, WHEEL, 3.00 CY BUCKET, ARTICULATED, 4X4	55.2000	HR	4,302.49	516.30	430.25	1,075.62	569.22	6,893.89
GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/5 RIPPER/SCARIFIERS	55.2000	HR	5,718.90	686.27	571.89	1,429.73	756.61	9,163.40
<b>Revegetation</b>	<b>1.2000</b>	<b>ACR</b>	<b>14,605.16</b>	<b>1,752.62</b>	<b>1,460.52</b>	<b>3,651.29</b>	<b>1,932.26</b>	<b>23,401.85</b>
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,931.46</b>	<b>471.78</b>	<b>393.15</b>	<b>982.87</b>	<b>520.13</b>	<b>6,299.38</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	74.0000	EA	3,474.89	416.99	347.49	868.72	459.73	5,567.82
Delivery - Shrubs	74.0000	EA	456.57	54.79	45.66	114.14	60.40	731.56
(Note: Haul to Waste: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 trees/cycle x 0.45 cycles/ hr = 36 trees/ hr)								
<b>Seeding</b>	<b>1.2000</b>	<b>ACR</b>	<b>5,522.67</b>	<b>662.72</b>	<b>552.27</b>	<b>1,380.67</b>	<b>730.65</b>	<b>8,848.98</b>
Hydro-Seeding	1.2000	ACR	5,522.67	662.72	552.27	1,380.67	730.65	8,848.98
<b>Watering</b>	<b>1.2000</b>	<b>ACR</b>	<b>5,151.02</b>	<b>618.12</b>	<b>515.10</b>	<b>1,287.76</b>	<b>681.48</b>	<b>8,253.49</b>
<b>(Note: Assume a total of 5 water applications over a year for the warranty.)</b>								
Watering Large Open Area	6.0000	ACR	2,913.77	349.65	291.38	728.44	385.49	4,668.73
Travel Time	12.0000	EA	2,237.26	268.47	223.73	559.31	295.99	3,584.76
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,470.20</b>	<b>0.00</b>	<b>0.00</b>	<b>617.55</b>	<b>908.41</b>	<b>3,996.16</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>823.40</b>	<b>0.00</b>	<b>0.00</b>	<b>205.85</b>	<b>302.80</b>	<b>1,332.05</b>
<b>Treat-Retreat-Reveg</b>	<b>0.0600</b>	<b>ACR</b>	<b>823.40</b>	<b>0.00</b>	<b>0.00</b>	<b>205.85</b>	<b>302.80</b>	<b>1,332.05</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0600</b>	<b>ACR</b>	<b>180.55</b>	<b>0.00</b>	<b>0.00</b>	<b>45.14</b>	<b>66.40</b>	<b>292.09</b>
VEG REMOVAL ABOVE GROUND	0.0600	ACR	34.61	0.00	0.00	8.65	12.73	55.99
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.1200	ACR	145.94	0.00	0.00	36.48	53.67	236.09
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.0600</b>	<b>ACR</b>	<b>642.84</b>	<b>0.00</b>	<b>0.00</b>	<b>160.71</b>	<b>236.41</b>	<b>1,039.96</b>
<b>Tree Plantings</b>	<b>0.0600</b>	<b>ACR</b>	<b>292.62</b>	<b>0.00</b>	<b>0.00</b>	<b>73.16</b>	<b>107.61</b>	<b>473.39</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Cottonwood Trees	2.0000	EA	127.95	0.00	0.00	31.99	47.05	206.99
Delivery - Cottonwood Trees	2.0000	EA	7.10	0.00	0.00	1.78	2.61	11.49
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	3.0000	EA	146.92	0.00	0.00	36.73	54.03	237.69
Delivery - Gooding's Willow Trees	3.0000	EA	10.65	0.00	0.00	2.66	3.92	17.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>190.32</b>	<b>0.00</b>	<b>0.00</b>	<b>47.58</b>	<b>69.99</b>	<b>307.89</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	7.0000	EA	168.23	0.00	0.00	42.06	61.87	272.16
Delivery - Shrubs	7.0000	EA	22.09	0.00	0.00	5.52	8.12	35.74
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0120</b>	<b>ACR</b>	<b>28.25</b>	<b>0.00</b>	<b>0.00</b>	<b>7.06</b>	<b>10.39</b>	<b>45.71</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0120	ACR	28.25	0.00	0.00	7.06	10.39	45.71
<b>Watering</b>	<b>0.0600</b>	<b>ACR</b>	<b>131.64</b>	<b>0.00</b>	<b>0.00</b>	<b>32.91</b>	<b>48.41</b>	<b>212.97</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.3000	ACR	74.47	0.00	0.00	18.62	27.39	120.47
(Note: Water 5 times in the contract life.)								
Travel Time	0.6000	EA	57.18	0.00	0.00	14.29	21.03	92.50
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,646.80</b>	<b>0.00</b>	<b>0.00</b>	<b>411.70</b>	<b>605.61</b>	<b>2,664.11</b>
Total O&M for the First Year Dollars	2.0000	EA	1,646.80	0.00	0.00	411.70	605.61	2,664.11
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>37,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>9,375.00</b>	<b>13,790.63</b>	<b>60,665.63</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	37,500.00	0.00	0.00	9,375.00	13,790.63	60,665.63
(Note: This cost was provided by the environmental section. The cost totaled \$13,730.08 per year for a total of 10 years =)								
<b>Project ID #12</b>	<b>1.0000</b>	<b>LS</b>	<b>1,100,834.68</b>	<b>128,361.31</b>	<b>106,967.76</b>	<b>275,208.67</b>	<b>152,976.36</b>	<b>1,764,348.78</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>1,100,834.68</b>	<b>128,361.31</b>	<b>106,967.76</b>	<b>275,208.67</b>	<b>152,976.36</b>	<b>1,764,348.78</b>
<b>Swale</b>	<b>5.1000</b>	<b>ACR</b>	<b>823,019.10</b>	<b>98,486.05</b>	<b>82,071.70</b>	<b>205,754.77</b>	<b>109,427.44</b>	<b>1,318,759.06</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>4,114.0000</b>	<b>LCY</b>	<b>78,206.16</b>	<b>9,384.74</b>	<b>7,820.62</b>	<b>19,551.54</b>	<b>10,346.68</b>	<b>125,309.73</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>4,114.0000</b>	<b>LCY</b>	<b>18,491.65</b>	<b>2,219.00</b>	<b>1,849.17</b>	<b>4,622.91</b>	<b>2,446.45</b>	<b>29,629.18</b>
VEG REMOVAL ABOVE GROUND	5.1000	ACR	4,472.68	536.72	447.27	1,118.17	591.74	7,166.57
Clearing Large Site	4,114.0000	LCY	14,018.98	1,682.28	1,401.90	3,504.74	1,854.71	22,462.60
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>4,731.1000</b>	<b>LCY</b>	<b>59,714.51</b>	<b>7,165.74</b>	<b>5,971.45</b>	<b>14,928.63</b>	<b>7,900.23</b>	<b>95,680.56</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	4,731.1000	LCY	59,714.51	7,165.74	5,971.45	14,928.63	7,900.23	95,680.56
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>24,684.0000</b>	<b>BCY</b>	<b>121,218.72</b>	<b>14,546.25</b>	<b>12,121.87</b>	<b>30,304.68</b>	<b>16,037.24</b>	<b>194,228.76</b>
Excavation, Random	24,684.0000	CY	121,218.72	14,546.25	12,121.87	30,304.68	16,037.24	194,228.76
<b>Rough Grading</b>	<b>24,684.0000</b>	<b>SY</b>	<b>12,223.91</b>	<b>1,466.87</b>	<b>1,222.39</b>	<b>3,055.98</b>	<b>1,617.22</b>	<b>19,586.38</b>
Rough Grading	24,684.0000	SY	12,223.91	1,466.87	1,222.39	3,055.98	1,617.22	19,586.38
<b>Compaction</b>	<b>8,228.0000</b>	<b>ECY</b>	<b>12,233.76</b>	<b>1,468.05</b>	<b>1,223.38</b>	<b>3,058.44</b>	<b>1,618.53</b>	<b>19,602.15</b>
Compaction	8,228.0000	ECY	12,233.76	1,468.05	1,223.38	3,058.44	1,618.53	19,602.15
<b>Load/Handle Waste Material</b>	<b>28,386.6000</b>	<b>LCY</b>	<b>39,524.19</b>	<b>4,742.90</b>	<b>3,952.42</b>	<b>9,881.05</b>	<b>5,229.05</b>	<b>63,329.61</b>
Load Waste Material	28,386.6000	LCY	39,524.19	4,742.90	3,952.42	9,881.05	5,229.05	63,329.61
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
<b>Haul Waste Material</b>	<b>28,386.6000</b>	<b>LCY</b>	<b>116,820.02</b>	<b>14,018.40</b>	<b>11,682.00</b>	<b>29,205.01</b>	<b>15,455.29</b>	<b>187,180.72</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	28,386.6000	LCY	116,820.02	14,018.40	11,682.00	29,205.01	15,455.29	187,180.72
<b>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</b>								
<b>Revegetation</b>	<b>5.1000</b>	<b>ACR</b>	<b>440,490.28</b>	<b>52,858.83</b>	<b>44,049.03</b>	<b>110,122.57</b>	<b>58,276.86</b>	<b>705,797.58</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>416,908.14</b>	<b>50,028.98</b>	<b>41,690.81</b>	<b>104,227.03</b>	<b>55,156.95</b>	<b>668,011.91</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	137.7000	EA	17,209.24	2,065.11	1,720.92	4,302.31	2,276.78	27,574.37
Delivery - Cottonwood Trees	137.7000	EA	955.79	114.69	95.58	238.95	126.45	1,531.46
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	24,684.0000	EA	326,445.13	39,173.42	32,644.51	81,611.28	43,188.69	523,063.03
Delivery - Coyote Willows	24,684.0000	EA	43,513.48	5,221.62	4,351.35	10,878.37	5,756.83	69,721.65
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	280.5000	EA	26,837.52	3,220.50	2,683.75	6,709.38	3,550.60	43,001.75
Delivery - Gooding's Willow Trees	280.5000	EA	1,946.98	233.64	194.70	486.75	257.59	3,119.65
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>16,799.03</b>	<b>2,015.88</b>	<b>1,679.90</b>	<b>4,199.76</b>	<b>2,222.51</b>	<b>26,917.09</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	316.2000	EA	14,848.12	1,781.77	1,484.81	3,712.03	1,964.41	23,791.14
Delivery - Shrubs	316.2000	EA	1,950.91	234.11	195.09	487.73	258.11	3,125.95
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>6,783.11</b>	<b>813.97</b>	<b>678.31</b>	<b>1,695.78</b>	<b>897.40</b>	<b>10,868.57</b>
PLUGS	1,785.0000	EA	5,650.32	678.04	565.03	1,412.58	747.54	9,053.50
Delivery - PLUGS	1,785.0000	EA	1,132.79	135.93	113.28	283.20	149.87	1,815.07
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,302.05</b>	<b>0.00</b>	<b>0.00</b>	<b>575.51</b>	<b>846.58</b>	<b>3,724.14</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>767.35</b>	<b>0.00</b>	<b>0.00</b>	<b>191.84</b>	<b>282.19</b>	<b>1,241.37</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.2550</b>	<b>ACR</b>	<b>767.35</b>	<b>0.00</b>	<b>0.00</b>	<b>191.84</b>	<b>282.19</b>	<b>1,241.37</b>
VEG REMOVAL ABOVE GROUND	0.2550	ACR	147.10	0.00	0.00	36.78	54.10	237.98

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	0.5100	ACR	620.24	0.00	0.00	155.06	228.09	1,003.40
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,534.70</b>	<b>0.00</b>	<b>0.00</b>	<b>383.68</b>	<b>564.39</b>	<b>2,482.76</b>
Total O&M for the First Year Dollars	2.0000	EA	1,534.70	0.00	0.00	383.68	564.39	2,482.76
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>8.4600</b>	<b>ACR</b>	<b>246,656.97</b>	<b>27,484.67</b>	<b>22,903.89</b>	<b>61,664.24</b>	<b>36,780.90</b>	<b>395,490.67</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>8.4600</b>	<b>ACR</b>	<b>49,772.73</b>	<b>5,972.73</b>	<b>4,977.27</b>	<b>12,443.18</b>	<b>6,584.93</b>	<b>79,750.84</b>
VEG REMOVAL ABOVE GROUND	8.4600	ACR	9,547.05	1,145.65	954.71	2,386.76	1,263.07	15,297.24
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	16.9200	ACR	40,225.67	4,827.08	4,022.57	10,056.42	5,321.86	64,453.60
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>8.4600</b>	<b>ACR</b>	<b>179,266.15</b>	<b>21,511.94</b>	<b>17,926.62</b>	<b>44,816.54</b>	<b>23,716.91</b>	<b>287,238.16</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>81,229.05</b>	<b>9,747.49</b>	<b>8,122.90</b>	<b>20,307.26</b>	<b>10,746.60</b>	<b>130,153.30</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	253.8000	EA	31,718.99	3,806.28	3,171.90	7,929.75	4,196.42	50,823.34
Delivery - Cottonwood Trees	253.8000	EA	1,761.65	211.40	176.17	440.41	233.07	2,822.70
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	465.3000	EA	44,518.70	5,342.24	4,451.87	11,129.68	5,889.82	71,332.32
Delivery - Gooding's Willow Trees	465.3000	EA	3,229.70	387.56	322.97	807.42	427.29	5,174.94
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>53,935.42</b>	<b>6,472.25</b>	<b>5,393.54</b>	<b>13,483.86</b>	<b>7,135.66</b>	<b>86,420.73</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	1,015.2000	EA	47,671.76	5,720.61	4,767.18	11,917.94	6,306.97	76,384.47
Delivery - Shrubs	1,015.2000	EA	6,263.66	751.64	626.37	1,565.91	828.68	10,036.26
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>1.6920</b>	<b>ACR</b>	<b>7,786.97</b>	<b>934.44</b>	<b>778.70</b>	<b>1,946.74</b>	<b>1,030.22</b>	<b>12,477.06</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								



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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Hydro-Seeding	1.6920	ACR	7,786.97	934.44	778.70	1,946.74	1,030.22	12,477.06
<b>Watering</b>	<b>8.4600</b>	<b>ACR</b>	<b>36,314.72</b>	<b>4,357.77</b>	<b>3,631.47</b>	<b>9,078.68</b>	<b>4,804.44</b>	<b>58,187.07</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	42.3000	ACR	20,542.06	2,465.05	2,054.21	5,135.51	2,717.71	32,914.54
(Note: Water 5 times in the contract life.)								
Travel Time	84.6000	EA	15,772.66	1,892.72	1,577.27	3,943.17	2,086.72	25,272.53
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>17,618.10</b>	<b>0.00</b>	<b>0.00</b>	<b>4,404.52</b>	<b>6,479.05</b>	<b>28,501.67</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>5,872.70</b>	<b>0.00</b>	<b>0.00</b>	<b>1,468.17</b>	<b>2,159.68</b>	<b>9,500.55</b>
<b>Treat-Retreat-Reveg</b>	<b>0.4230</b>	<b>ACR</b>	<b>5,872.70</b>	<b>0.00</b>	<b>0.00</b>	<b>1,468.17</b>	<b>2,159.68</b>	<b>9,500.55</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4230</b>	<b>ACR</b>	<b>1,272.89</b>	<b>0.00</b>	<b>0.00</b>	<b>318.22</b>	<b>468.11</b>	<b>2,059.22</b>
VEG REMOVAL ABOVE GROUND	0.4230	ACR	244.02	0.00	0.00	61.00	89.74	394.76
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.8460	ACR	1,028.87	0.00	0.00	257.22	378.37	1,664.46
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.4230</b>	<b>ACR</b>	<b>4,599.80</b>	<b>0.00</b>	<b>0.00</b>	<b>1,149.95</b>	<b>1,691.58</b>	<b>7,441.33</b>
<b>Tree Plantings</b>	<b>0.4230</b>	<b>ACR</b>	<b>2,085.89</b>	<b>0.00</b>	<b>0.00</b>	<b>521.47</b>	<b>767.09</b>	<b>3,374.45</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	13.0000	EA	831.67	0.00	0.00	207.92	305.85	1,345.43
Delivery - Cottonwood Trees	13.0000	EA	46.15	0.00	0.00	11.54	16.97	74.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	23.0000	EA	1,126.42	0.00	0.00	281.60	414.24	1,822.26
Delivery - Gooding's Willow Trees	23.0000	EA	81.65	0.00	0.00	20.41	30.03	132.10
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,386.62</b>	<b>0.00</b>	<b>0.00</b>	<b>346.66</b>	<b>509.93</b>	<b>2,243.21</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	51.0000	EA	1,225.68	0.00	0.00	306.42	450.74	1,982.85

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Shrubs	51.0000	EA	160.94	0.00	0.00	40.24	59.19	260.36
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0846</b>	<b>ACR</b>	<b>199.19</b>	<b>0.00</b>	<b>0.00</b>	<b>49.80</b>	<b>73.25</b>	<b>322.24</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0846	ACR	199.19	0.00	0.00	49.80	73.25	322.24
<b>Watering</b>	<b>0.4230</b>	<b>ACR</b>	<b>928.10</b>	<b>0.00</b>	<b>0.00</b>	<b>232.02</b>	<b>341.31</b>	<b>1,501.43</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.1150	ACR	525.01	0.00	0.00	131.25	193.07	849.33
(Note: Water 5 times in the contract life.)								
Travel Time	4.2300	EA	403.09	0.00	0.00	100.77	148.24	652.09
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>11,745.40</b>	<b>0.00</b>	<b>0.00</b>	<b>2,936.35</b>	<b>4,319.37</b>	<b>19,001.12</b>
Total O&M for the First Year Dollars	2.0000	EA	11,745.40	0.00	0.00	2,936.35	4,319.37	19,001.12
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wetland (Water Feature)</b>	<b>0.1200</b>	<b>ACR</b>	<b>20,158.61</b>	<b>2,390.60</b>	<b>1,992.17</b>	<b>5,039.65</b>	<b>2,722.77</b>	<b>32,303.80</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>96.8000</b>	<b>LCY</b>	<b>1,840.14</b>	<b>220.82</b>	<b>184.01</b>	<b>460.04</b>	<b>243.45</b>	<b>2,948.46</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>96.8000</b>	<b>LCY</b>	<b>435.10</b>	<b>52.21</b>	<b>43.51</b>	<b>108.77</b>	<b>57.56</b>	<b>697.16</b>
VEG REMOVAL ABOVE GROUND	0.1200	ACR	105.24	12.63	10.52	26.31	13.92	168.63
Clearing Large Site	96.8000	LCY	329.86	39.58	32.99	82.46	43.64	528.53
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>111.3200</b>	<b>LCY</b>	<b>1,405.05</b>	<b>168.61</b>	<b>140.50</b>	<b>351.26</b>	<b>185.89</b>	<b>2,251.31</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	111.3200	LCY	1,405.05	168.61	140.50	351.26	185.89	2,251.31
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>968.0000</b>	<b>BCY</b>	<b>4,753.68</b>	<b>570.44</b>	<b>475.37</b>	<b>1,188.42</b>	<b>628.91</b>	<b>7,616.81</b>
Excavation, Random	968.0000	CY	4,753.68	570.44	475.37	1,188.42	628.91	7,616.81
<b>Rough Grading</b>	<b>580.8000</b>	<b>SY</b>	<b>287.62</b>	<b>34.51</b>	<b>28.76</b>	<b>71.91</b>	<b>38.05</b>	<b>460.86</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Rough Grading	580.8000	SY	287.62	34.51	28.76	71.91	38.05	460.86
<b>Compaction</b>	<b>193.6000</b>	<b>ECY</b>	<b>287.85</b>	<b>34.54</b>	<b>28.79</b>	<b>71.96</b>	<b>38.08</b>	<b>461.23</b>
Compaction	193.6000	ECY	287.85	34.54	28.79	71.96	38.08	461.23
<b>Load/Handle Waste Material</b>	<b>1,113.2000</b>	<b>LCY</b>	<b>1,549.97</b>	<b>186.00</b>	<b>155.00</b>	<b>387.49</b>	<b>205.06</b>	<b>2,483.51</b>
Load Waste Material	1,113.2000	LCY	1,549.97	186.00	155.00	387.49	205.06	2,483.51
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>1,113.2000</b>	<b>LCY</b>	<b>4,581.18</b>	<b>549.74</b>	<b>458.12</b>	<b>1,145.29</b>	<b>606.09</b>	<b>7,340.42</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	1,113.2000	LCY	4,581.18	549.74	458.12	1,145.29	606.09	7,340.42
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>0.1200</b>	<b>ACR</b>	<b>6,621.22</b>	<b>794.55</b>	<b>662.12</b>	<b>1,655.31</b>	<b>875.99</b>	<b>10,609.19</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>6,621.22</b>	<b>794.55</b>	<b>662.12</b>	<b>1,655.31</b>	<b>875.99</b>	<b>10,609.19</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	1,742.4000	EA	5,515.47	661.86	551.55	1,378.87	729.70	8,837.44
Delivery - PLUGS	1,742.4000	EA	1,105.75	132.69	110.58	276.44	146.29	1,771.75
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>236.94</b>	<b>0.00</b>	<b>0.00</b>	<b>59.24</b>	<b>87.14</b>	<b>383.32</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>78.98</b>	<b>0.00</b>	<b>0.00</b>	<b>19.75</b>	<b>29.05</b>	<b>127.78</b>
<b>Treat-Retreat-Reveg</b>	<b>0.0060</b>	<b>ACR</b>	<b>78.98</b>	<b>0.00</b>	<b>0.00</b>	<b>19.75</b>	<b>29.05</b>	<b>127.78</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0060</b>	<b>ACR</b>	<b>18.06</b>	<b>0.00</b>	<b>0.00</b>	<b>4.51</b>	<b>6.64</b>	<b>29.21</b>
VEG REMOVAL ABOVE GROUND	0.0060	ACR	3.46	0.00	0.00	0.87	1.27	5.60
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.0120	ACR	14.59	0.00	0.00	3.65	5.37	23.61
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.0060</b>	<b>ACR</b>	<b>60.93</b>	<b>0.00</b>	<b>0.00</b>	<b>15.23</b>	<b>22.41</b>	<b>98.57</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Tree Plantings</b>	<b>0.0060</b>	<b>ACR</b>	<b>17.75</b>	<b>0.00</b>	<b>0.00</b>	<b>4.44</b>	<b>6.53</b>	<b>28.72</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
Delivery - Cottonwood Trees	2.0000	EA	7.10	0.00	0.00	1.78	2.61	11.49
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
Delivery - Gooding's Willow Trees	3.0000	EA	10.65	0.00	0.00	2.66	3.92	17.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>27.19</b>	<b>0.00</b>	<b>0.00</b>	<b>6.80</b>	<b>10.00</b>	<b>43.98</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	1.0000	EA	24.03	0.00	0.00	6.01	8.84	38.88
Delivery - Shrubs	1.0000	EA	3.16	0.00	0.00	0.79	1.16	5.11
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0012</b>	<b>ACR</b>	<b>2.83</b>	<b>0.00</b>	<b>0.00</b>	<b>0.71</b>	<b>1.04</b>	<b>4.57</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0012	ACR	2.83	0.00	0.00	0.71	1.04	4.57
<b>Watering</b>	<b>0.0060</b>	<b>ACR</b>	<b>13.16</b>	<b>0.00</b>	<b>0.00</b>	<b>3.29</b>	<b>4.84</b>	<b>21.30</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.0300	ACR	7.45	0.00	0.00	1.86	2.74	12.05
(Note: Water 5 times in the contract life.)								
Travel Time	0.0600	EA	5.72	0.00	0.00	1.43	2.10	9.25
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>157.96</b>	<b>0.00</b>	<b>0.00</b>	<b>39.49</b>	<b>58.09</b>	<b>255.54</b>
Total O&M for the First Year Dollars	2.0000	EA	157.96	0.00	0.00	39.49	58.09	255.54
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>11,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2,750.00</b>	<b>4,045.25</b>	<b>17,795.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	11,000.00	0.00	0.00	2,750.00	4,045.25	17,795.25

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: This cost was provided by the environmental section. The cost totaled \$1,100.00 per year for a total of 10 years =)</b>								
<b>Project ID #14</b>	<b>1.0000</b>	<b>LS</b>	<b>3,032,097.66</b>	<b>337,452.59</b>	<b>281,210.50</b>	<b>758,024.42</b>	<b>452,943.80</b>	<b>4,861,728.97</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>3,032,097.66</b>	<b>337,452.59</b>	<b>281,210.50</b>	<b>758,024.42</b>	<b>452,943.80</b>	<b>4,861,728.97</b>
<b>Treat-Retreat-Reveg</b>	<b>71.8000</b>	<b>ACR</b>	<b>2,093,038.55</b>	<b>233,262.29</b>	<b>194,385.24</b>	<b>523,259.64</b>	<b>312,034.87</b>	<b>3,355,980.60</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>71.8000</b>	<b>ACR</b>	<b>422,421.00</b>	<b>50,690.52</b>	<b>42,242.10</b>	<b>105,605.25</b>	<b>55,886.30</b>	<b>676,845.17</b>
VEG REMOVAL ABOVE GROUND	71.8000	ACR	81,025.80	9,723.10	8,102.58	20,256.45	10,719.71	129,827.64
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	143.6000	ACR	341,395.20	40,967.42	34,139.52	85,348.80	45,166.59	547,017.53
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>71.8000</b>	<b>ACR</b>	<b>1,521,431.42</b>	<b>182,571.77</b>	<b>152,143.14</b>	<b>380,357.86</b>	<b>201,285.38</b>	<b>2,437,789.57</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>689,390.72</b>	<b>82,726.89</b>	<b>68,939.07</b>	<b>172,347.68</b>	<b>91,206.39</b>	<b>1,104,610.76</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2,154.0000	EA	269,199.02	32,303.88	26,919.90	67,299.75	35,615.03	431,337.59
Delivery - Cottonwood Trees	2,154.0000	EA	14,951.15	1,794.14	1,495.11	3,737.79	1,978.04	23,956.22
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	3,949.0000	EA	377,830.12	45,339.61	37,783.01	94,457.53	49,986.92	605,397.20
Delivery - Gooding's Willow Trees	3,949.0000	EA	27,410.44	3,289.25	2,741.04	6,852.61	3,626.40	43,919.75
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>457,749.79</b>	<b>54,929.98</b>	<b>45,774.98</b>	<b>114,437.45</b>	<b>60,560.30</b>	<b>733,452.50</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	8,616.0000	EA	404,590.16	48,550.82	40,459.02	101,147.54	53,527.28	648,274.81
Delivery - Shrubs	8,616.0000	EA	53,159.64	6,379.16	5,315.96	13,289.91	7,033.02	85,177.69
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>14.3600</b>	<b>ACR</b>	<b>66,087.99</b>	<b>7,930.56</b>	<b>6,608.80</b>	<b>16,522.00</b>	<b>8,743.44</b>	<b>105,892.78</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	14.3600	ACR	66,087.99	7,930.56	6,608.80	16,522.00	8,743.44	105,892.78
<b>Watering</b>	<b>71.8000</b>	<b>ACR</b>	<b>308,202.92</b>	<b>36,984.35</b>	<b>30,820.29</b>	<b>77,050.73</b>	<b>40,775.25</b>	<b>493,833.53</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Watering (Note: Water 5 times in the contract life.)	359.0000	ACR	174,340.38	20,920.85	17,434.04	43,585.09	23,065.23	279,345.59
Travel Time	718.0000	EA	133,862.54	16,063.50	13,386.25	33,465.63	17,710.01	214,487.94
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>149,186.13</b>	<b>0.00</b>	<b>0.00</b>	<b>37,296.53</b>	<b>54,863.20</b>	<b>241,345.86</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>49,728.71</b>	<b>0.00</b>	<b>0.00</b>	<b>12,432.18</b>	<b>18,287.73</b>	<b>80,448.62</b>
<b>Treat-Retreat-Reveg</b>	<b>3.5900</b>	<b>ACR</b>	<b>49,728.71</b>	<b>0.00</b>	<b>0.00</b>	<b>12,432.18</b>	<b>18,287.73</b>	<b>80,448.62</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>3.5900</b>	<b>ACR</b>	<b>10,803.03</b>	<b>0.00</b>	<b>0.00</b>	<b>2,700.76</b>	<b>3,972.82</b>	<b>17,476.61</b>
VEG REMOVAL ABOVE GROUND (Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)	3.5900	ACR	2,070.98	0.00	0.00	517.75	761.60	3,350.33
Exotic Species Removal Herbicide Treatment (Note: Quantity is times 2, because of the Treat and Retreat applications.)	7.1800	ACR	8,732.05	0.00	0.00	2,183.01	3,211.21	14,126.27
<b>Revegetation</b>	<b>3.5900</b>	<b>ACR</b>	<b>38,925.68</b>	<b>0.00</b>	<b>0.00</b>	<b>9,731.42</b>	<b>14,314.92</b>	<b>62,972.01</b>
<b>Tree Plantings</b>	<b>3.5900</b>	<b>ACR</b>	<b>17,640.06</b>	<b>0.00</b>	<b>0.00</b>	<b>4,410.01</b>	<b>6,487.13</b>	<b>28,537.21</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	108.0000	EA	6,909.26	0.00	0.00	1,727.31	2,540.88	11,177.45
Delivery - Cottonwood Trees (Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)	108.0000	EA	383.42	0.00	0.00	95.85	141.00	620.28
Gooding's Willows	197.0000	EA	9,648.00	0.00	0.00	2,412.00	3,548.05	15,608.05
Delivery - Gooding's Willow Trees (Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)	197.0000	EA	699.38	0.00	0.00	174.85	257.20	1,131.43
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>11,718.33</b>	<b>0.00</b>	<b>0.00</b>	<b>2,929.58</b>	<b>4,309.42</b>	<b>18,957.33</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	431.0000	EA	10,358.22	0.00	0.00	2,589.55	3,809.23	16,757.01
Delivery - Shrubs (Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)	431.0000	EA	1,360.11	0.00	0.00	340.03	500.18	2,200.32
<b>Seeding</b>	<b>0.7180</b>	<b>ACR</b>	<b>1,690.54</b>	<b>0.00</b>	<b>0.00</b>	<b>422.63</b>	<b>621.69</b>	<b>2,734.86</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.7180	ACR	1,690.54	0.00	0.00	422.63	621.69	2,734.86
<b>Watering</b>	<b>3.5900</b>	<b>ACR</b>	<b>7,876.75</b>	<b>0.00</b>	<b>0.00</b>	<b>1,969.19</b>	<b>2,896.68</b>	<b>12,742.62</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	17.9500	ACR	4,455.75	0.00	0.00	1,113.94	1,638.60	7,208.29
(Note: Water 5 times in the contract life.)								
Travel Time	35.9000	EA	3,421.00	0.00	0.00	855.25	1,258.07	5,534.32
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>99,457.42</b>	<b>0.00</b>	<b>0.00</b>	<b>24,864.36</b>	<b>36,575.47</b>	<b>160,897.24</b>
Total O&M for the First Year Dollars	2.0000	EA	99,457.42	0.00	0.00	24,864.36	36,575.47	160,897.24
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wetland (Water Feature)</b>	<b>5.2300</b>	<b>ACR</b>	<b>879,059.11</b>	<b>104,190.30</b>	<b>86,825.25</b>	<b>219,764.78</b>	<b>118,843.93</b>	<b>1,408,683.37</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>4,218.8667</b>	<b>LCY</b>	<b>80,199.65</b>	<b>9,623.96</b>	<b>8,019.97</b>	<b>20,049.91</b>	<b>10,610.41</b>	<b>128,503.90</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>4,218.8667</b>	<b>LCY</b>	<b>18,963.01</b>	<b>2,275.56</b>	<b>1,896.30</b>	<b>4,740.75</b>	<b>2,508.81</b>	<b>30,384.43</b>
VEG REMOVAL ABOVE GROUND	5.2300	ACR	4,586.69	550.40	458.67	1,146.67	606.82	7,349.25
Clearing Large Site	4,218.8667	LCY	14,376.32	1,725.16	1,437.63	3,594.08	1,901.99	23,035.18
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>4,851.6967</b>	<b>LCY</b>	<b>61,236.64</b>	<b>7,348.40</b>	<b>6,123.66</b>	<b>15,309.16</b>	<b>8,101.61</b>	<b>98,119.47</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	4,851.6967	LCY	61,236.64	7,348.40	6,123.66	15,309.16	8,101.61	98,119.47
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>42,188.6667</b>	<b>BCY</b>	<b>207,181.02</b>	<b>24,861.72</b>	<b>20,718.10</b>	<b>51,795.26</b>	<b>27,410.05</b>	<b>331,966.15</b>
Excavation, Random	42,188.6667	CY	207,181.02	24,861.72	20,718.10	51,795.26	27,410.05	331,966.15
<b>Rough Grading</b>	<b>25,313.2000</b>	<b>SY</b>	<b>12,535.50</b>	<b>1,504.26</b>	<b>1,253.55</b>	<b>3,133.88</b>	<b>1,658.45</b>	<b>20,085.64</b>
Rough Grading	25,313.2000	SY	12,535.50	1,504.26	1,253.55	3,133.88	1,658.45	20,085.64
<b>Compaction</b>	<b>8,437.7333</b>	<b>ECY</b>	<b>12,545.60</b>	<b>1,505.47</b>	<b>1,254.56</b>	<b>3,136.40</b>	<b>1,659.78</b>	<b>20,101.81</b>
Compaction	8,437.7333	ECY	12,545.60	1,505.47	1,254.56	3,136.40	1,659.78	20,101.81

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>48,516.9667</b>	<b>LCY</b>	<b>67,552.78</b>	<b>8,106.33</b>	<b>6,755.28</b>	<b>16,888.20</b>	<b>8,937.23</b>	<b>108,239.83</b>
Load Waste Material	48,516.9667	LCY	67,552.78	8,106.33	6,755.28	16,888.20	8,937.23	108,239.83
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>48,516.9667</b>	<b>LCY</b>	<b>199,662.98</b>	<b>23,959.56</b>	<b>19,966.30</b>	<b>49,915.74</b>	<b>26,415.41</b>	<b>319,919.99</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	48,516.9667	LCY	199,662.98	23,959.56	19,966.30	49,915.74	26,415.41	319,919.99
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>5.2300</b>	<b>ACR</b>	<b>288,574.99</b>	<b>34,629.00</b>	<b>28,857.50</b>	<b>72,143.75</b>	<b>38,178.47</b>	<b>462,383.71</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>288,574.99</b>	<b>34,629.00</b>	<b>28,857.50</b>	<b>72,143.75</b>	<b>38,178.47</b>	<b>462,383.71</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	75,939.6000	EA	240,382.54	28,845.90	24,038.25	60,095.63	31,802.61	385,164.94
Delivery - PLUGS	75,939.6000	EA	48,192.46	5,783.10	4,819.25	12,048.11	6,375.86	77,218.78
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>10,806.57</b>	<b>0.00</b>	<b>0.00</b>	<b>2,701.64</b>	<b>3,974.12</b>	<b>17,482.34</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,602.19</b>	<b>0.00</b>	<b>0.00</b>	<b>900.55</b>	<b>1,324.71</b>	<b>5,827.45</b>
<b>Treat-Retreat-Reveg</b>	<b>0.2615</b>	<b>ACR</b>	<b>3,602.19</b>	<b>0.00</b>	<b>0.00</b>	<b>900.55</b>	<b>1,324.71</b>	<b>5,827.45</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.2615</b>	<b>ACR</b>	<b>786.91</b>	<b>0.00</b>	<b>0.00</b>	<b>196.73</b>	<b>289.38</b>	<b>1,273.02</b>
VEG REMOVAL ABOVE GROUND	0.2615	ACR	150.85	0.00	0.00	37.71	55.48	244.04
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.5230	ACR	636.05	0.00	0.00	159.01	233.91	1,028.98
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.2615</b>	<b>ACR</b>	<b>2,815.29</b>	<b>0.00</b>	<b>0.00</b>	<b>703.82</b>	<b>1,035.32</b>	<b>4,554.43</b>
<b>Tree Plantings</b>	<b>0.2615</b>	<b>ACR</b>	<b>1,275.55</b>	<b>0.00</b>	<b>0.00</b>	<b>318.89</b>	<b>469.08</b>	<b>2,063.51</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	8.0000	EA	511.80	0.00	0.00	127.95	188.21	827.96



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Cottonwood Trees	8.0000	EA	28.40	0.00	0.00	7.10	10.44	45.95
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	14.0000	EA	685.64	0.00	0.00	171.41	252.15	1,109.20
Delivery - Gooding's Willow Trees	14.0000	EA	49.70	0.00	0.00	12.43	18.28	80.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>842.85</b>	<b>0.00</b>	<b>0.00</b>	<b>210.71</b>	<b>309.96</b>	<b>1,363.52</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	31.0000	EA	745.02	0.00	0.00	186.26	273.98	1,205.26
Delivery - Shrubs	31.0000	EA	97.83	0.00	0.00	24.46	35.98	158.26
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0523</b>	<b>ACR</b>	<b>123.14</b>	<b>0.00</b>	<b>0.00</b>	<b>30.79</b>	<b>45.28</b>	<b>199.21</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0523	ACR	123.14	0.00	0.00	30.79	45.28	199.21
<b>Watering</b>	<b>0.2615</b>	<b>ACR</b>	<b>573.75</b>	<b>0.00</b>	<b>0.00</b>	<b>143.44</b>	<b>211.00</b>	<b>928.19</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	1.3075	ACR	324.56	0.00	0.00	81.14	119.36	525.06
(Note: Water 5 times in the contract life.)								
Travel Time	2.6150	EA	249.19	0.00	0.00	62.30	91.64	403.13
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>7,204.38</b>	<b>0.00</b>	<b>0.00</b>	<b>1,801.10</b>	<b>2,649.41</b>	<b>11,654.89</b>
Total O&M for the First Year Dollars	2.0000	EA	7,204.38	0.00	0.00	1,801.10	2,649.41	11,654.89
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>60,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>15,000.00</b>	<b>22,065.00</b>	<b>97,065.00</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	60,000.00	0.00	0.00	15,000.00	22,065.00	97,065.00
(Note: This cost was provided by the environmental section. The cost totaled \$6,000.00 per year for a total of 10 years =)								
<b>Project ID #15</b>	<b>1.0000</b>	<b>LS</b>	<b>3,410,405.57</b>	<b>384,143.85</b>	<b>320,119.87</b>	<b>852,601.39</b>	<b>500,454.41</b>	<b>5,467,725.10</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>3,410,405.57</b>	<b>384,143.85</b>	<b>320,119.87</b>	<b>852,601.39</b>	<b>500,454.41</b>	<b>5,467,725.10</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Swale</b>	<b>8.1800</b>	<b>ACR</b>	<b>1,320,058.06</b>	<b>157,963.89</b>	<b>131,636.58</b>	<b>330,014.52</b>	<b>175,513.03</b>	<b>2,115,186.08</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>6,598.5333</b>	<b>LCY</b>	<b>125,436.55</b>	<b>15,052.39</b>	<b>12,543.65</b>	<b>31,359.14</b>	<b>16,595.26</b>	<b>200,986.98</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>6,598.5333</b>	<b>LCY</b>	<b>29,659.16</b>	<b>3,559.10</b>	<b>2,965.92</b>	<b>7,414.79</b>	<b>3,923.91</b>	<b>47,522.87</b>
VEG REMOVAL ABOVE GROUND	8.1800	ACR	7,173.82	860.86	717.38	1,793.46	949.10	11,494.62
Clearing Large Site	6,598.5333	LCY	22,485.34	2,698.24	2,248.53	5,621.33	2,974.81	36,028.26
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>7,588.3133</b>	<b>LCY</b>	<b>95,777.39</b>	<b>11,493.29</b>	<b>9,577.74</b>	<b>23,944.35</b>	<b>12,671.35</b>	<b>153,464.11</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	7,588.3133	LCY	95,777.39	11,493.29	9,577.74	23,944.35	12,671.35	153,464.11
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>39,591.2000</b>	<b>BCY</b>	<b>194,425.33</b>	<b>23,331.04</b>	<b>19,442.53</b>	<b>48,606.33</b>	<b>25,722.47</b>	<b>311,527.70</b>
Excavation, Random	39,591.2000	CY	194,425.33	23,331.04	19,442.53	48,606.33	25,722.47	311,527.70
<b>Rough Grading</b>	<b>39,591.2000</b>	<b>SY</b>	<b>19,606.20</b>	<b>2,352.74</b>	<b>1,960.62</b>	<b>4,901.55</b>	<b>2,593.90</b>	<b>31,415.01</b>
Rough Grading	39,591.2000	SY	19,606.20	2,352.74	1,960.62	4,901.55	2,593.90	31,415.01
<b>Compaction</b>	<b>13,197.0667</b>	<b>ECY</b>	<b>19,621.99</b>	<b>2,354.64</b>	<b>1,962.20</b>	<b>4,905.50</b>	<b>2,595.99</b>	<b>31,440.31</b>
Compaction	13,197.0667	ECY	19,621.99	2,354.64	1,962.20	4,905.50	2,595.99	31,440.31
<b>Load/Handle Waste Material</b>	<b>45,529.8800</b>	<b>LCY</b>	<b>63,393.70</b>	<b>7,607.24</b>	<b>6,339.37</b>	<b>15,848.43</b>	<b>8,386.99</b>	<b>101,575.73</b>
Load Waste Material	45,529.8800	LCY	63,393.70	7,607.24	6,339.37	15,848.43	8,386.99	101,575.73
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
<b>Haul Waste Material</b>	<b>45,529.8800</b>	<b>LCY</b>	<b>187,370.15</b>	<b>22,484.42</b>	<b>18,737.02</b>	<b>46,842.54</b>	<b>24,789.07</b>	<b>300,223.20</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	45,529.8800	LCY	187,370.15	22,484.42	18,737.02	46,842.54	24,789.07	300,223.20
<b>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</b>								
<b>Revegetation</b>	<b>8.1800</b>	<b>ACR</b>	<b>706,511.86</b>	<b>84,781.42</b>	<b>70,651.19</b>	<b>176,627.97</b>	<b>93,471.52</b>	<b>1,132,043.96</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>668,687.96</b>	<b>80,242.55</b>	<b>66,868.80</b>	<b>167,171.99</b>	<b>88,467.42</b>	<b>1,071,438.71</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	220.8600	EA	27,602.27	3,312.27	2,760.23	6,900.57	3,651.78	44,227.12
Delivery - Cottonwood Trees	220.8600	EA	1,533.01	183.96	153.30	383.25	202.82	2,456.35
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	39,591.2000	EA	523,592.39	62,831.09	52,359.24	130,898.10	69,271.27	838,952.08
Delivery - Coyote Willows	39,591.2000	EA	69,792.21	8,375.07	6,979.22	17,448.05	9,233.51	111,828.06
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	449.9000	EA	43,045.27	5,165.43	4,304.53	10,761.32	5,694.89	68,971.44
Delivery - Gooding's Willow Trees	449.9000	EA	3,122.80	374.74	312.28	780.70	413.15	5,003.67
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>26,944.33</b>	<b>3,233.32</b>	<b>2,694.43</b>	<b>6,736.08</b>	<b>3,564.74</b>	<b>43,172.91</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	507.1600	EA	23,815.22	2,857.83	2,381.52	5,953.81	3,150.75	38,159.13
Delivery - Shrubs	507.1600	EA	3,129.11	375.49	312.91	782.28	413.98	5,013.78
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>10,879.57</b>	<b>1,305.55</b>	<b>1,087.96</b>	<b>2,719.89</b>	<b>1,439.37</b>	<b>17,432.34</b>
PLUGS	2,863.0000	EA	9,062.67	1,087.52	906.27	2,265.67	1,198.99	14,521.11
Delivery - PLUGS	2,863.0000	EA	1,816.90	218.03	181.69	454.23	240.38	2,911.23
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,692.28</b>	<b>0.00</b>	<b>0.00</b>	<b>923.07</b>	<b>1,357.84</b>	<b>5,973.19</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,230.76</b>	<b>0.00</b>	<b>0.00</b>	<b>307.69</b>	<b>452.61</b>	<b>1,991.07</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4090</b>	<b>ACR</b>	<b>1,230.76</b>	<b>0.00</b>	<b>0.00</b>	<b>307.69</b>	<b>452.61</b>	<b>1,991.07</b>
VEG REMOVAL ABOVE GROUND	0.4090	ACR	235.94	0.00	0.00	58.99	86.77	381.70

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	0.8180	ACR	994.82	0.00	0.00	248.71	365.85	1,609.37
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,461.52</b>	<b>0.00</b>	<b>0.00</b>	<b>615.38</b>	<b>905.22</b>	<b>3,982.12</b>
Total O&M for the First Year Dollars	2.0000	EA	2,461.52	0.00	0.00	615.38	905.22	3,982.12
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>69.6200</b>	<b>ACR</b>	<b>2,029,347.51</b>	<b>226,179.95</b>	<b>188,483.29</b>	<b>507,336.88</b>	<b>302,508.63</b>	<b>3,253,856.27</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>69.6200</b>	<b>ACR</b>	<b>409,595.41</b>	<b>49,151.45</b>	<b>40,959.54</b>	<b>102,398.85</b>	<b>54,189.47</b>	<b>656,294.72</b>
VEG REMOVAL ABOVE GROUND	69.6200	ACR	78,565.68	9,427.88	7,856.57	19,641.42	10,394.24	125,885.80
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	139.2400	ACR	331,029.72	39,723.57	33,102.97	82,757.43	43,795.23	530,408.92
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>69.6200</b>	<b>ACR</b>	<b>1,475,237.54</b>	<b>177,028.51</b>	<b>147,523.75</b>	<b>368,809.39</b>	<b>195,173.93</b>	<b>2,363,773.12</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>668,459.36</b>	<b>80,215.12</b>	<b>66,845.94</b>	<b>167,114.84</b>	<b>88,437.17</b>	<b>1,071,072.43</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2,088.6000	EA	261,025.57	31,323.07	26,102.56	65,256.39	34,533.68	418,241.26
Delivery - Cottonwood Trees	2,088.6000	EA	14,497.20	1,739.66	1,449.72	3,624.30	1,917.98	23,228.86
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	3,829.1000	EA	366,358.40	43,963.01	36,635.84	91,589.60	48,469.22	587,016.06
Delivery - Gooding's Willow Trees	3,829.1000	EA	26,578.20	3,189.38	2,657.82	6,644.55	3,516.30	42,586.25
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>443,851.54</b>	<b>53,262.18</b>	<b>44,385.15</b>	<b>110,962.89</b>	<b>58,721.56</b>	<b>711,183.33</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	8,354.4000	EA	392,305.94	47,076.71	39,230.59	98,076.49	51,902.08	628,591.81
Delivery - Shrubs	8,354.4000	EA	51,545.60	6,185.47	5,154.56	12,886.40	6,819.48	82,591.51
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>13.9240</b>	<b>ACR</b>	<b>64,081.42</b>	<b>7,689.77</b>	<b>6,408.14</b>	<b>16,020.35</b>	<b>8,477.97</b>	<b>102,677.66</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Hydro-Seeding	13.9240	ACR	64,081.42	7,689.77	6,408.14	16,020.35	8,477.97	102,677.66
<b>Watering</b>	<b>69.6200</b>	<b>ACR</b>	<b>298,845.22</b>	<b>35,861.43</b>	<b>29,884.52</b>	<b>74,711.31</b>	<b>39,537.22</b>	<b>478,839.70</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	348.1000	ACR	169,047.04	20,285.64	16,904.70	42,261.76	22,364.92	270,864.06
(Note: Water 5 times in the contract life.)								
Travel Time	696.2000	EA	129,798.19	15,575.78	12,979.82	32,449.55	17,172.30	207,975.64
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>144,514.56</b>	<b>0.00</b>	<b>0.00</b>	<b>36,128.64</b>	<b>53,145.23</b>	<b>233,788.43</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>48,171.52</b>	<b>0.00</b>	<b>0.00</b>	<b>12,042.88</b>	<b>17,715.08</b>	<b>77,929.48</b>
<b>Treat-Retreat-Reveg</b>	<b>3.4810</b>	<b>ACR</b>	<b>48,171.52</b>	<b>0.00</b>	<b>0.00</b>	<b>12,042.88</b>	<b>17,715.08</b>	<b>77,929.48</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>3.4810</b>	<b>ACR</b>	<b>10,475.03</b>	<b>0.00</b>	<b>0.00</b>	<b>2,618.76</b>	<b>3,852.19</b>	<b>16,945.98</b>
VEG REMOVAL ABOVE GROUND	3.4810	ACR	2,008.10	0.00	0.00	502.03	738.48	3,248.61
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	6.9620	ACR	8,466.93	0.00	0.00	2,116.73	3,113.71	13,697.37
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>3.4810</b>	<b>ACR</b>	<b>37,696.49</b>	<b>0.00</b>	<b>0.00</b>	<b>9,424.12</b>	<b>13,862.89</b>	<b>60,983.50</b>
<b>Tree Plantings</b>	<b>3.4810</b>	<b>ACR</b>	<b>17,054.81</b>	<b>0.00</b>	<b>0.00</b>	<b>4,263.70</b>	<b>6,271.91</b>	<b>27,590.42</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	104.0000	EA	6,653.36	0.00	0.00	1,663.34	2,446.77	10,763.47
Delivery - Cottonwood Trees	104.0000	EA	369.22	0.00	0.00	92.30	135.78	597.30
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	191.0000	EA	9,354.15	0.00	0.00	2,338.54	3,439.99	15,132.68
Delivery - Gooding's Willow Trees	191.0000	EA	678.08	0.00	0.00	169.52	249.37	1,096.97
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>11,364.88</b>	<b>0.00</b>	<b>0.00</b>	<b>2,841.22</b>	<b>4,179.43</b>	<b>18,385.53</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	418.0000	EA	10,045.79	0.00	0.00	2,511.45	3,694.34	16,251.58

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Shrubs	418.0000	EA	1,319.09	0.00	0.00	329.77	485.09	2,133.95
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.6962</b>	<b>ACR</b>	<b>1,639.21</b>	<b>0.00</b>	<b>0.00</b>	<b>409.80</b>	<b>602.82</b>	<b>2,651.83</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.6962	ACR	1,639.21	0.00	0.00	409.80	602.82	2,651.83
<b>Watering</b>	<b>3.4810</b>	<b>ACR</b>	<b>7,637.60</b>	<b>0.00</b>	<b>0.00</b>	<b>1,909.40</b>	<b>2,808.73</b>	<b>12,355.72</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	17.4050	ACR	4,320.47	0.00	0.00	1,080.12	1,588.85	6,989.43
(Note: Water 5 times in the contract life.)								
Travel Time	34.8100	EA	3,317.13	0.00	0.00	829.28	1,219.88	5,366.29
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>96,343.04</b>	<b>0.00</b>	<b>0.00</b>	<b>24,085.76</b>	<b>35,430.15</b>	<b>155,858.95</b>
Total O&M for the First Year Dollars	2.0000	EA	96,343.04	0.00	0.00	24,085.76	35,430.15	155,858.95
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>61,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>15,250.00</b>	<b>22,432.75</b>	<b>98,682.75</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	61,000.00	0.00	0.00	15,250.00	22,432.75	98,682.75
(Note: This cost was provided by the environmental section. The cost totaled \$6,100.00 per year for a total of 10 years =)								
<b>Project ID #16</b>	<b>1.0000</b>	<b>LS</b>	<b>2,397,322.24</b>	<b>275,788.56</b>	<b>229,823.80</b>	<b>599,330.56</b>	<b>340,495.11</b>	<b>3,842,760.28</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>2,397,322.24</b>	<b>275,788.56</b>	<b>229,823.80</b>	<b>599,330.56</b>	<b>340,495.11</b>	<b>3,842,760.28</b>
<b>Swale</b>	<b>8.5100</b>	<b>ACR</b>	<b>1,373,312.25</b>	<b>164,336.52</b>	<b>136,947.10</b>	<b>343,328.06</b>	<b>182,593.63</b>	<b>2,200,517.57</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>6,864.7333</b>	<b>LCY</b>	<b>130,496.95</b>	<b>15,659.63</b>	<b>13,049.69</b>	<b>32,624.24</b>	<b>17,264.75</b>	<b>209,095.26</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>6,864.7333</b>	<b>LCY</b>	<b>30,855.68</b>	<b>3,702.68</b>	<b>3,085.57</b>	<b>7,713.92</b>	<b>4,082.21</b>	<b>49,440.05</b>
VEG REMOVAL ABOVE GROUND	8.5100	ACR	7,463.23	895.59	746.32	1,865.81	987.39	11,958.34
Clearing Large Site	6,864.7333	LCY	23,392.45	2,807.09	2,339.24	5,848.11	3,094.82	37,481.72
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>7,894.4433</b>	<b>LCY</b>	<b>99,641.27</b>	<b>11,956.95</b>	<b>9,964.13</b>	<b>24,910.32</b>	<b>13,182.54</b>	<b>159,655.20</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	7,894.4433	LCY	99,641.27	11,956.95	9,964.13	24,910.32	13,182.54	159,655.20
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>41,188.4000</b>	<b>BCY</b>	<b>202,268.89</b>	<b>24,272.27</b>	<b>20,226.89</b>	<b>50,567.22</b>	<b>26,760.17</b>	<b>324,095.44</b>
Excavation, Random	41,188.4000	CY	202,268.89	24,272.27	20,226.89	50,567.22	26,760.17	324,095.44
<b>Rough Grading</b>	<b>41,188.4000</b>	<b>SY</b>	<b>20,397.16</b>	<b>2,447.66</b>	<b>2,039.72</b>	<b>5,099.29</b>	<b>2,698.54</b>	<b>32,682.37</b>
Rough Grading	41,188.4000	SY	20,397.16	2,447.66	2,039.72	5,099.29	2,698.54	32,682.37
<b>Compaction</b>	<b>13,729.4667</b>	<b>ECY</b>	<b>20,413.58</b>	<b>2,449.63</b>	<b>2,041.36</b>	<b>5,103.40</b>	<b>2,700.72</b>	<b>32,708.68</b>
Compaction	13,729.4667	ECY	20,413.58	2,449.63	2,041.36	5,103.40	2,700.72	32,708.68
<b>Load/Handle Waste Material</b>	<b>47,366.6600</b>	<b>LCY</b>	<b>65,951.15</b>	<b>7,914.14</b>	<b>6,595.12</b>	<b>16,487.79</b>	<b>8,725.34</b>	<b>105,673.53</b>
Load Waste Material	47,366.6600	LCY	65,951.15	7,914.14	6,595.12	16,487.79	8,725.34	105,673.53
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>47,366.6600</b>	<b>LCY</b>	<b>194,929.10</b>	<b>23,391.49</b>	<b>19,492.91</b>	<b>48,732.27</b>	<b>25,789.12</b>	<b>312,334.89</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	47,366.6600	LCY	194,929.10	23,391.49	19,492.91	48,732.27	25,789.12	312,334.89
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>8.5100</b>	<b>ACR</b>	<b>735,014.17</b>	<b>88,201.70</b>	<b>73,501.42</b>	<b>183,753.54</b>	<b>97,242.38</b>	<b>1,177,713.21</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>695,664.37</b>	<b>83,479.72</b>	<b>69,566.44</b>	<b>173,916.09</b>	<b>92,036.40</b>	<b>1,114,663.01</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	229.7700	EA	28,715.81	3,445.90	2,871.58	7,178.95	3,799.10	46,011.35
Delivery - Cottonwood Trees	229.7700	EA	1,594.86	191.38	159.49	398.71	211.00	2,555.44
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	41,188.4000	EA	544,715.31	65,365.84	54,471.53	136,178.83	72,065.84	872,797.34
Delivery - Coyote Willows	41,188.4000	EA	72,607.79	8,712.93	7,260.78	18,151.95	9,606.01	116,339.46
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	468.0500	EA	44,781.81	5,373.82	4,478.18	11,195.45	5,924.63	71,753.90

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	468.0500	EA	3,248.79	389.85	324.88	812.20	429.81	5,205.53
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>28,031.33</b>	<b>3,363.76</b>	<b>2,803.13</b>	<b>7,007.83</b>	<b>3,708.55</b>	<b>44,914.60</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	527.6200	EA	24,775.98	2,973.12	2,477.60	6,194.00	3,277.86	39,698.56
Delivery - Shrubs	527.6200	EA	3,255.35	390.64	325.53	813.84	430.68	5,216.05
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>11,318.48</b>	<b>1,358.22</b>	<b>1,131.85</b>	<b>2,829.62</b>	<b>1,497.43</b>	<b>18,135.60</b>
PLUGS	2,978.5000	EA	9,428.27	1,131.39	942.83	2,357.07	1,247.36	15,106.92
Delivery - PLUGS	2,978.5000	EA	1,890.20	226.82	189.02	472.55	250.07	3,028.67
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,841.26</b>	<b>0.00</b>	<b>0.00</b>	<b>960.31</b>	<b>1,412.62</b>	<b>6,214.19</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,280.42</b>	<b>0.00</b>	<b>0.00</b>	<b>320.10</b>	<b>470.87</b>	<b>2,071.39</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4255</b>	<b>ACR</b>	<b>1,280.42</b>	<b>0.00</b>	<b>0.00</b>	<b>320.10</b>	<b>470.87</b>	<b>2,071.39</b>
VEG REMOVAL ABOVE GROUND	0.4255	ACR	245.46	0.00	0.00	61.37	90.27	397.09
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.8510	ACR	1,034.95	0.00	0.00	258.74	380.60	1,674.30
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,560.84</b>	<b>0.00</b>	<b>0.00</b>	<b>640.21</b>	<b>941.75</b>	<b>4,142.80</b>
Total O&M for the First Year Dollars	2.0000	EA	2,560.84	0.00	0.00	640.21	941.75	4,142.80
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>30.3200</b>	<b>ACR</b>	<b>883,703.75</b>	<b>98,502.96</b>	<b>82,085.80</b>	<b>220,925.94</b>	<b>131,711.04</b>	<b>1,416,929.49</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>30.3200</b>	<b>ACR</b>	<b>178,381.68</b>	<b>21,405.80</b>	<b>17,838.17</b>	<b>44,595.42</b>	<b>23,599.90</b>	<b>285,820.97</b>
VEG REMOVAL ABOVE GROUND	30.3200	ACR	34,215.91	4,105.91	3,421.59	8,553.98	4,526.76	54,824.15
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	60.6400	ACR	144,165.77	17,299.89	14,416.58	36,041.44	19,073.13	230,996.82



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>30.3200</b>	<b>ACR</b>	<b>642,476.33</b>	<b>77,097.16</b>	<b>64,247.63</b>	<b>160,619.08</b>	<b>84,999.62</b>	<b>1,029,439.83</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>291,118.76</b>	<b>34,934.25</b>	<b>29,111.88</b>	<b>72,779.69</b>	<b>38,515.01</b>	<b>466,459.58</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	909.6000	EA	113,678.47	13,641.42	11,367.85	28,419.62	15,039.66	182,147.01
Delivery - Cottonwood Trees	909.6000	EA	6,313.63	757.64	631.36	1,578.41	835.29	10,116.33
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
Gooding's Willows	1,667.6000	EA	159,551.66	19,146.20	15,955.17	39,887.92	21,108.68	255,649.62
Delivery - Gooding's Willow Trees	1,667.6000	EA	11,574.99	1,389.00	1,157.50	2,893.75	1,531.37	18,546.61
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>193,300.47</b>	<b>23,196.06</b>	<b>19,330.05</b>	<b>48,325.12</b>	<b>25,573.65</b>	<b>309,725.34</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	3,638.4000	EA	170,852.00	20,502.24	17,085.20	42,713.00	22,603.72	273,756.16
Delivery - Shrubs	3,638.4000	EA	22,448.47	2,693.82	2,244.85	5,612.12	2,969.93	35,969.19
<small>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</small>								
<b>Seeding</b>	<b>6.0640</b>	<b>ACR</b>	<b>27,907.91</b>	<b>3,348.95</b>	<b>2,790.79</b>	<b>6,976.98</b>	<b>3,692.22</b>	<b>44,716.84</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	6.0640	ACR	27,907.91	3,348.95	2,790.79	6,976.98	3,692.22	44,716.84
<b>Watering</b>	<b>30.3200</b>	<b>ACR</b>	<b>130,149.20</b>	<b>15,617.90</b>	<b>13,014.92</b>	<b>32,537.30</b>	<b>17,218.74</b>	<b>208,538.06</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	151.6000	ACR	73,621.17	8,834.54	7,362.12	18,405.29	9,740.08	117,963.21
<small>(Note: Water 5 times in the contract life.)</small>								
Travel Time	303.2000	EA	56,528.02	6,783.36	5,652.80	14,132.01	7,478.66	90,574.85
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>62,845.74</b>	<b>0.00</b>	<b>0.00</b>	<b>15,711.43</b>	<b>23,111.52</b>	<b>101,668.69</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,948.58</b>	<b>0.00</b>	<b>0.00</b>	<b>5,237.14</b>	<b>7,703.84</b>	<b>33,889.56</b>
<b>Treat-Retreat-Reveg</b>	<b>1.5160</b>	<b>ACR</b>	<b>20,948.58</b>	<b>0.00</b>	<b>0.00</b>	<b>5,237.14</b>	<b>7,703.84</b>	<b>33,889.56</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.5160</b>	<b>ACR</b>	<b>4,561.95</b>	<b>0.00</b>	<b>0.00</b>	<b>1,140.49</b>	<b>1,677.66</b>	<b>7,380.09</b>
VEG REMOVAL ABOVE GROUND	1.5160	ACR	874.54	0.00	0.00	218.64	321.61	1,414.79
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.0320	ACR	3,687.41	0.00	0.00	921.85	1,356.04	5,965.30
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5160</b>	<b>ACR</b>	<b>16,386.63</b>	<b>0.00</b>	<b>0.00</b>	<b>4,096.66</b>	<b>6,026.18</b>	<b>26,509.47</b>
<b>Tree Plantings</b>	<b>1.5160</b>	<b>ACR</b>	<b>7,398.17</b>	<b>0.00</b>	<b>0.00</b>	<b>1,849.54</b>	<b>2,720.68</b>	<b>11,968.39</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	45.0000	EA	2,878.86	0.00	0.00	719.71	1,058.70	4,657.27
Delivery - Cottonwood Trees	45.0000	EA	159.76	0.00	0.00	39.94	58.75	258.45
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	83.0000	EA	4,064.89	0.00	0.00	1,016.22	1,494.86	6,575.98
Delivery - Gooding's Willow Trees	83.0000	EA	294.66	0.00	0.00	73.67	108.36	476.69
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>4,948.34</b>	<b>0.00</b>	<b>0.00</b>	<b>1,237.09</b>	<b>1,819.75</b>	<b>8,005.18</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	182.0000	EA	4,374.00	0.00	0.00	1,093.50	1,608.54	7,076.04
Delivery - Shrubs	182.0000	EA	574.34	0.00	0.00	143.58	211.21	929.14
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3032</b>	<b>ACR</b>	<b>713.89</b>	<b>0.00</b>	<b>0.00</b>	<b>178.47</b>	<b>262.53</b>	<b>1,154.89</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3032	ACR	713.89	0.00	0.00	178.47	262.53	1,154.89
<b>Watering</b>	<b>1.5160</b>	<b>ACR</b>	<b>3,326.23</b>	<b>0.00</b>	<b>0.00</b>	<b>831.56</b>	<b>1,223.22</b>	<b>5,381.00</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.5800	ACR	1,881.59	0.00	0.00	470.40	691.96	3,043.95
(Note: Water 5 times in the contract life.)								
Travel Time	15.1600	EA	1,444.63	0.00	0.00	361.16	531.26	2,337.06
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>41,897.16</b>	<b>0.00</b>	<b>0.00</b>	<b>10,474.29</b>	<b>15,407.68</b>	<b>67,779.13</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Total O&M for the First Year Dollars (Note: This will happen once every three years for a total of three times in 10years.)	2.0000	EA	41,897.16	0.00	0.00	10,474.29	15,407.68	67,779.13
<b>Wetland (Water Feature)</b>	<b>0.6500</b>	<b>ACR</b>	<b>109,306.23</b>	<b>12,949.08</b>	<b>10,790.90</b>	<b>27,326.56</b>	<b>14,790.19</b>	<b>175,162.97</b>
(Note: Assume an average 5 ft depth from existing grade. )								
<b>Vegetation Removal</b>	<b>524.3333</b>	<b>LCY</b>	<b>9,967.45</b>	<b>1,196.09</b>	<b>996.75</b>	<b>2,491.86</b>	<b>1,318.69</b>	<b>15,970.85</b>
(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)								
<b>Clearing</b>	<b>524.3333</b>	<b>LCY</b>	<b>2,356.78</b>	<b>282.81</b>	<b>235.68</b>	<b>589.19</b>	<b>311.80</b>	<b>3,776.27</b>
VEG REMOVAL ABOVE GROUND	0.6500	ACR	570.05	68.41	57.00	142.51	75.42	913.39
Clearing Large Site	524.3333	LCY	1,786.73	214.41	178.67	446.68	236.38	2,862.88
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>602.9833</b>	<b>LCY</b>	<b>7,610.67</b>	<b>913.28</b>	<b>761.07</b>	<b>1,902.67</b>	<b>1,006.89</b>	<b>12,194.58</b>
(Note: Haul to Waste: Avg Haul - 5 miles)								
Load, Haul and Dispose	602.9833	LCY	7,610.67	913.28	761.07	1,902.67	1,006.89	12,194.58
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>5,243.3333</b>	<b>BCY</b>	<b>25,749.08</b>	<b>3,089.89</b>	<b>2,574.91</b>	<b>6,437.27</b>	<b>3,406.60</b>	<b>41,257.74</b>
Excavation, Random	5,243.3333	CY	25,749.08	3,089.89	2,574.91	6,437.27	3,406.60	41,257.74
<b>Rough Grading</b>	<b>3,146.0000</b>	<b>SY</b>	<b>1,557.95</b>	<b>186.95</b>	<b>155.79</b>	<b>389.49</b>	<b>206.12</b>	<b>2,496.30</b>
Rough Grading	3,146.0000	SY	1,557.95	186.95	155.79	389.49	206.12	2,496.30
<b>Compaction</b>	<b>1,048.6667</b>	<b>ECY</b>	<b>1,559.20</b>	<b>187.10</b>	<b>155.92</b>	<b>389.80</b>	<b>206.28</b>	<b>2,498.31</b>
Compaction	1,048.6667	ECY	1,559.20	187.10	155.92	389.80	206.28	2,498.31
<b>Load/Handle Waste Material</b>	<b>6,029.8333</b>	<b>LCY</b>	<b>8,395.66</b>	<b>1,007.48</b>	<b>839.57</b>	<b>2,098.92</b>	<b>1,110.75</b>	<b>13,452.37</b>
Load Waste Material	6,029.8333	LCY	8,395.66	1,007.48	839.57	2,098.92	1,110.75	13,452.37
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>6,029.8333</b>	<b>LCY</b>	<b>24,814.71</b>	<b>2,977.77</b>	<b>2,481.47</b>	<b>6,203.68</b>	<b>3,282.99</b>	<b>39,760.61</b>
(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)								
Haul Waste Material	6,029.8333	LCY	24,814.71	2,977.77	2,481.47	6,203.68	3,282.99	39,760.61
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Revegetation</b>	<b>0.6500</b>	<b>ACR</b>	<b>35,864.96</b>	<b>4,303.80</b>	<b>3,586.50</b>	<b>8,966.24</b>	<b>4,744.93</b>	<b>57,466.43</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>35,864.96</b>	<b>4,303.80</b>	<b>3,586.50</b>	<b>8,966.24</b>	<b>4,744.93</b>	<b>57,466.43</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	9,438.0000	EA	29,875.46	3,585.06	2,987.55	7,468.86	3,952.52	47,869.45
Delivery - PLUGS	9,438.0000	EA	5,989.50	718.74	598.95	1,497.38	792.41	9,596.98
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>1,397.22</b>	<b>0.00</b>	<b>0.00</b>	<b>349.31</b>	<b>513.83</b>	<b>2,260.35</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>465.74</b>	<b>0.00</b>	<b>0.00</b>	<b>116.44</b>	<b>171.28</b>	<b>753.45</b>
<b>Treat-Retreat-Reveg</b>	<b>0.0325</b>	<b>ACR</b>	<b>465.74</b>	<b>0.00</b>	<b>0.00</b>	<b>116.44</b>	<b>171.28</b>	<b>753.45</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0325</b>	<b>ACR</b>	<b>97.80</b>	<b>0.00</b>	<b>0.00</b>	<b>24.45</b>	<b>35.97</b>	<b>158.21</b>
VEG REMOVAL ABOVE GROUND	0.0325	ACR	18.75	0.00	0.00	4.69	6.89	30.33
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.0650	ACR	79.05	0.00	0.00	19.76	29.07	127.88
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.0325</b>	<b>ACR</b>	<b>367.94</b>	<b>0.00</b>	<b>0.00</b>	<b>91.99</b>	<b>135.31</b>	<b>595.24</b>
<b>Tree Plantings</b>	<b>0.0325</b>	<b>ACR</b>	<b>172.57</b>	<b>0.00</b>	<b>0.00</b>	<b>43.14</b>	<b>63.46</b>	<b>279.18</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1.0000	EA	63.97	0.00	0.00	15.99	23.53	103.49
Delivery - Cottonwood Trees	1.0000	EA	3.55	0.00	0.00	0.89	1.31	5.74
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	2.0000	EA	97.95	0.00	0.00	24.49	36.02	158.46
Delivery - Gooding's Willow Trees	2.0000	EA	7.10	0.00	0.00	1.78	2.61	11.49
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>108.75</b>	<b>0.00</b>	<b>0.00</b>	<b>27.19</b>	<b>39.99</b>	<b>175.94</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Shrubs	4.0000	EA	96.13	0.00	0.00	24.03	35.35	155.52
Delivery - Shrubs	4.0000	EA	12.62	0.00	0.00	3.16	4.64	20.42
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0065</b>	<b>ACR</b>	<b>15.30</b>	<b>0.00</b>	<b>0.00</b>	<b>3.83</b>	<b>5.63</b>	<b>24.76</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0065	ACR	15.30	0.00	0.00	3.83	5.63	24.76
<b>Watering</b>	<b>0.0325</b>	<b>ACR</b>	<b>71.31</b>	<b>0.00</b>	<b>0.00</b>	<b>17.83</b>	<b>26.22</b>	<b>115.36</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.1625	ACR	40.34	0.00	0.00	10.08	14.83	65.26
(Note: Water 5 times in the contract life.)								
Travel Time	0.3250	EA	30.97	0.00	0.00	7.74	11.39	50.10
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>931.48</b>	<b>0.00</b>	<b>0.00</b>	<b>232.87</b>	<b>342.55</b>	<b>1,506.90</b>
Total O&M for the First Year Dollars	2.0000	EA	931.48	0.00	0.00	232.87	342.55	1,506.90
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>31,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>7,750.00</b>	<b>11,400.25</b>	<b>50,150.25</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	31,000.00	0.00	0.00	7,750.00	11,400.25	50,150.25
(Note: This cost was provided by the environmental section. The cost totaled \$3,100.00 per year for a total of 10 years =)								
<b>Project ID #17</b>	<b>1.0000</b>	<b>LS</b>	<b>3,237,661.98</b>	<b>370,381.23</b>	<b>308,651.03</b>	<b>809,415.50</b>	<b>463,931.35</b>	<b>5,190,041.09</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>3,237,661.98</b>	<b>370,381.23</b>	<b>308,651.03</b>	<b>809,415.50</b>	<b>463,931.35</b>	<b>5,190,041.09</b>
<b>Swale</b>	<b>8.5800</b>	<b>ACR</b>	<b>1,384,608.59</b>	<b>165,688.29</b>	<b>138,073.57</b>	<b>346,152.15</b>	<b>184,095.58</b>	<b>2,218,618.18</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>6,921.2000</b>	<b>LCY</b>	<b>131,570.36</b>	<b>15,788.44</b>	<b>13,157.04</b>	<b>32,892.59</b>	<b>17,406.76</b>	<b>210,815.20</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>6,921.2000</b>	<b>LCY</b>	<b>31,109.49</b>	<b>3,733.14</b>	<b>3,110.95</b>	<b>7,777.37</b>	<b>4,115.79</b>	<b>49,846.73</b>
VEG REMOVAL ABOVE GROUND	8.5800	ACR	7,524.62	902.95	752.46	1,881.16	995.51	12,056.70
Clearing Large Site	6,921.2000	LCY	23,584.86	2,830.18	2,358.49	5,896.22	3,120.28	37,790.03
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Haul Waste</b>	<b>7,959.3800</b>	<b>LCY</b>	<b>100,460.88</b>	<b>12,055.31</b>	<b>10,046.09</b>	<b>25,115.22</b>	<b>13,290.97</b>	<b>160,968.47</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	7,959.3800	LCY	100,460.88	12,055.31	10,046.09	25,115.22	13,290.97	160,968.47
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>41,527.2000</b>	<b>BCY</b>	<b>203,932.68</b>	<b>24,471.92</b>	<b>20,393.27</b>	<b>50,983.17</b>	<b>26,980.29</b>	<b>326,761.33</b>
Excavation, Random	41,527.2000	CY	203,932.68	24,471.92	20,393.27	50,983.17	26,980.29	326,761.33
<b>Rough Grading</b>	<b>41,527.2000</b>	<b>SY</b>	<b>20,564.94</b>	<b>2,467.79</b>	<b>2,056.49</b>	<b>5,141.23</b>	<b>2,720.74</b>	<b>32,951.20</b>
Rough Grading	41,527.2000	SY	20,564.94	2,467.79	2,056.49	5,141.23	2,720.74	32,951.20
<b>Compaction</b>	<b>13,842.4000</b>	<b>ECY</b>	<b>20,581.50</b>	<b>2,469.78</b>	<b>2,058.15</b>	<b>5,145.37</b>	<b>2,722.93</b>	<b>32,977.73</b>
Compaction	13,842.4000	ECY	20,581.50	2,469.78	2,058.15	5,145.37	2,722.93	32,977.73
<b>Load/Handle Waste Material</b>	<b>47,756.2800</b>	<b>LCY</b>	<b>66,493.64</b>	<b>7,979.24</b>	<b>6,649.36</b>	<b>16,623.41</b>	<b>8,797.11</b>	<b>106,542.76</b>
Load Waste Material	47,756.2800	LCY	66,493.64	7,979.24	6,649.36	16,623.41	8,797.11	106,542.76
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>47,756.2800</b>	<b>LCY</b>	<b>196,532.51</b>	<b>23,583.90</b>	<b>19,653.25</b>	<b>49,133.13</b>	<b>26,001.25</b>	<b>314,904.04</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	47,756.2800	LCY	196,532.51	23,583.90	19,653.25	49,133.13	26,001.25	314,904.04
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>8.5800</b>	<b>ACR</b>	<b>741,060.12</b>	<b>88,927.21</b>	<b>74,106.01</b>	<b>185,265.03</b>	<b>98,042.25</b>	<b>1,187,400.63</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>701,386.63</b>	<b>84,166.40</b>	<b>70,138.66</b>	<b>175,346.66</b>	<b>92,793.45</b>	<b>1,123,831.81</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	231.6600	EA	28,952.02	3,474.24	2,895.20	7,238.00	3,830.35	46,389.82
Delivery - Cottonwood Trees	231.6600	EA	1,607.98	192.96	160.80	401.99	212.74	2,576.46
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	41,527.2000	EA	549,195.93	65,903.51	54,919.59	137,298.98	72,658.62	879,976.63
Delivery - Coyote Willows	41,527.2000	EA	73,205.03	8,784.60	7,320.50	18,301.26	9,685.03	117,296.42
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Gooding's Willows	471.9000	EA	45,150.17	5,418.02	4,515.02	11,287.54	5,973.37	72,344.12
Delivery - Gooding's Willow Trees	471.9000	EA	3,275.51	393.06	327.55	818.88	433.35	5,248.35
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>28,261.91</b>	<b>3,391.43</b>	<b>2,826.19</b>	<b>7,065.48</b>	<b>3,739.05</b>	<b>45,284.05</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	531.9600	EA	24,979.78	2,997.57	2,497.98	6,244.94	3,304.82	40,025.10
Delivery - Shrubs	531.9600	EA	3,282.13	393.86	328.21	820.53	434.23	5,258.95
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>11,411.58</b>	<b>1,369.39</b>	<b>1,141.16</b>	<b>2,852.89</b>	<b>1,509.75</b>	<b>18,284.77</b>
PLUGS	3,003.0000	EA	9,505.83	1,140.70	950.58	2,376.46	1,257.62	15,231.19
Delivery - PLUGS	3,003.0000	EA	1,905.75	228.69	190.58	476.44	252.13	3,053.58
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,872.85</b>	<b>0.00</b>	<b>0.00</b>	<b>968.21</b>	<b>1,424.24</b>	<b>6,265.30</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,290.95</b>	<b>0.00</b>	<b>0.00</b>	<b>322.74</b>	<b>474.75</b>	<b>2,088.43</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4290</b>	<b>ACR</b>	<b>1,290.95</b>	<b>0.00</b>	<b>0.00</b>	<b>322.74</b>	<b>474.75</b>	<b>2,088.43</b>
VEG REMOVAL ABOVE GROUND	0.4290	ACR	247.48	0.00	0.00	61.87	91.01	400.36
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.8580	ACR	1,043.47	0.00	0.00	260.87	383.74	1,688.07
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,581.90</b>	<b>0.00</b>	<b>0.00</b>	<b>645.48</b>	<b>949.49</b>	<b>4,176.87</b>
Total O&M for the First Year Dollars	2.0000	EA	2,581.90	0.00	0.00	645.48	949.49	4,176.87
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>31.8300</b>	<b>ACR</b>	<b>927,999.11</b>	<b>103,408.62</b>	<b>86,173.85</b>	<b>231,999.78</b>	<b>138,375.35</b>	<b>1,487,956.71</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>31.8300</b>	<b>ACR</b>	<b>187,265.47</b>	<b>22,471.86</b>	<b>18,726.55</b>	<b>46,816.37</b>	<b>24,775.22</b>	<b>300,055.46</b>
VEG REMOVAL ABOVE GROUND	31.8300	ACR	35,919.93	4,310.39	3,591.99	8,979.98	4,752.21	57,554.51
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Exotic Species Removal Herbicide Treatment	63.6600	ACR	151,345.53	18,161.46	15,134.55	37,836.38	20,023.01	242,500.95
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>31.8300</b>	<b>ACR</b>	<b>674,473.01</b>	<b>80,936.76</b>	<b>67,447.30</b>	<b>168,618.25</b>	<b>89,232.78</b>	<b>1,080,708.10</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>305,617.09</b>	<b>36,674.05</b>	<b>30,561.71</b>	<b>76,404.27</b>	<b>40,433.14</b>	<b>489,690.26</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	954.9000	EA	119,339.90	14,320.79	11,933.99	29,834.97	15,788.67	191,218.32
Delivery - Cottonwood Trees	954.9000	EA	6,628.06	795.37	662.81	1,657.02	876.89	10,620.15
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	1,750.6500	EA	167,497.67	20,099.72	16,749.77	41,874.42	22,159.94	268,381.52
Delivery - Gooding's Willow Trees	1,750.6500	EA	12,151.45	1,458.17	1,215.15	3,037.86	1,607.64	19,470.27
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>202,927.24</b>	<b>24,351.27</b>	<b>20,292.72</b>	<b>50,731.81</b>	<b>26,847.27</b>	<b>325,150.32</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	3,819.6000	EA	179,360.79	21,523.29	17,936.08	44,840.20	23,729.43	287,389.79
Delivery - Shrubs	3,819.6000	EA	23,566.45	2,827.97	2,356.65	5,891.61	3,117.84	37,760.53
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>6.3660</b>	<b>ACR</b>	<b>29,297.78</b>	<b>3,515.73</b>	<b>2,929.78</b>	<b>7,324.45</b>	<b>3,876.10</b>	<b>46,943.83</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	6.3660	ACR	29,297.78	3,515.73	2,929.78	7,324.45	3,876.10	46,943.83
<b>Watering</b>	<b>31.8300</b>	<b>ACR</b>	<b>136,630.90</b>	<b>16,395.71</b>	<b>13,663.09</b>	<b>34,157.73</b>	<b>18,076.27</b>	<b>218,923.70</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	159.1500	ACR	77,287.66	9,274.52	7,728.77	19,321.92	10,225.16	123,838.02
(Note: Water 5 times in the contract life.)								
Travel Time	318.3000	EA	59,343.24	7,121.19	5,934.32	14,835.81	7,851.11	95,085.67
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>66,260.64</b>	<b>0.00</b>	<b>0.00</b>	<b>16,565.16</b>	<b>24,367.35</b>	<b>107,193.14</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>22,086.88</b>	<b>0.00</b>	<b>0.00</b>	<b>5,521.72</b>	<b>8,122.45</b>	<b>35,731.04</b>



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Treat-Retreat-Reveg</b>	<b>1.5915</b>	<b>ACR</b>	<b>22,086.88</b>	<b>0.00</b>	<b>0.00</b>	<b>5,521.72</b>	<b>8,122.45</b>	<b>35,731.04</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.5915</b>	<b>ACR</b>	<b>4,789.14</b>	<b>0.00</b>	<b>0.00</b>	<b>1,197.29</b>	<b>1,761.21</b>	<b>7,747.64</b>
VEG REMOVAL ABOVE GROUND	1.5915	ACR	918.10	0.00	0.00	229.52	337.63	1,485.25
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.1830	ACR	3,871.05	0.00	0.00	967.76	1,423.58	6,262.39
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>44,173.76</b>	<b>0.00</b>	<b>0.00</b>	<b>11,043.44</b>	<b>16,244.90</b>	<b>71,462.10</b>
Total O&M for the First Year Dollars	2.0000	EA	44,173.76	0.00	0.00	11,043.44	16,244.90	71,462.10
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>4.0800</b>	<b>ACR</b>	<b>643,522.84</b>	<b>72,300.55</b>	<b>60,250.46</b>	<b>160,880.71</b>	<b>94,795.81</b>	<b>1,031,750.37</b>
<b>High Flow Channel</b>	<b>6,835.5692</b>	<b>LF</b>	<b>643,522.84</b>	<b>72,300.55</b>	<b>60,250.46</b>	<b>160,880.71</b>	<b>94,795.81</b>	<b>1,031,750.37</b>
(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)								
<b>Vegetation Removal</b>	<b>3,291.2000</b>	<b>LCY</b>	<b>62,564.25</b>	<b>7,507.71</b>	<b>6,256.42</b>	<b>15,641.06</b>	<b>8,277.25</b>	<b>100,246.69</b>
<b>Clearing</b>	<b>3,291.2000</b>	<b>LCY</b>	<b>14,792.64</b>	<b>1,775.12</b>	<b>1,479.26</b>	<b>3,698.16</b>	<b>1,957.07</b>	<b>23,702.25</b>
(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)								
Clearing Large Site	3,291.0000	LCY	11,214.50	1,345.74	1,121.45	2,803.62	1,483.68	17,968.99
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	4.0800	ACR	3,578.14	429.38	357.81	894.54	473.39	5,733.26
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>3,784.8800</b>	<b>LCY</b>	<b>47,771.61</b>	<b>5,732.59</b>	<b>4,777.16</b>	<b>11,942.90</b>	<b>6,320.18</b>	<b>76,544.45</b>
(Note: Haul to Waste:)								
Load, Haul and Dispose	3,784.8800	LCY	47,771.61	5,732.59	4,777.16	11,942.90	6,320.18	76,544.45
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>18,228.1846</b>	<b>BCY</b>	<b>83,062.85</b>	<b>9,967.54</b>	<b>8,306.29</b>	<b>20,765.71</b>	<b>10,989.22</b>	<b>133,091.61</b>
Channel Excavation	18,228.1846	BCY	83,062.85	9,967.54	8,306.29	20,765.71	10,989.22	133,091.61
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>21,266.2154</b>	<b>SY</b>	<b>24,303.17</b>	<b>2,916.38</b>	<b>2,430.32</b>	<b>6,075.79</b>	<b>3,215.31</b>	<b>38,940.97</b>
Rough Grading	21,266.2154	SY	24,303.17	2,916.38	2,430.32	6,075.79	3,215.31	38,940.97
<b>Compaction</b>	<b>7,088.7385</b>	<b>ECY</b>	<b>20,972.56</b>	<b>2,516.71</b>	<b>2,097.26</b>	<b>5,243.14</b>	<b>2,774.67</b>	<b>33,604.33</b>
Compaction	7,089.0000	ECY	20,972.56	2,516.71	2,097.26	5,243.14	2,774.67	33,604.33
<b>Load/Handle Waste Material</b>	<b>20,962.4123</b>	<b>LCY</b>	<b>29,187.10</b>	<b>3,502.45</b>	<b>2,918.71</b>	<b>7,296.77</b>	<b>3,861.45</b>	<b>46,766.48</b>
Load Waste Material	20,962.4123	LCY	29,187.10	3,502.45	2,918.71	7,296.77	3,861.45	46,766.48
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>20,962.4123</b>	<b>LCY</b>	<b>86,267.09</b>	<b>10,352.05</b>	<b>8,626.71</b>	<b>21,566.77</b>	<b>11,413.14</b>	<b>138,225.76</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Haul Waste Material	20,962.4123	LCY	86,267.09	10,352.05	8,626.71	21,566.77	11,413.14	138,225.76
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>6,835.5692</b>	<b>LF</b>	<b>296,147.60</b>	<b>35,537.71</b>	<b>29,614.76</b>	<b>74,036.90</b>	<b>39,180.33</b>	<b>474,517.29</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>228,744.51</b>	<b>27,449.34</b>	<b>22,874.45</b>	<b>57,186.13</b>	<b>30,262.90</b>	<b>366,517.33</b>
(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)								
Cottonwood Trees	273.0000	EA	34,118.54	4,094.22	3,411.85	8,529.63	4,513.88	54,668.13
Delivery - Cottonwood Trees	273.0000	EA	1,894.92	227.39	189.49	473.73	250.70	3,036.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	9,114.0000	EA	120,532.37	14,463.88	12,053.24	30,133.09	15,946.43	193,129.01
Delivery - Coyote Willows	9,114.0000	EA	16,066.35	1,927.96	1,606.64	4,016.59	2,125.58	25,743.12
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	547.0000	EA	52,335.55	6,280.27	5,233.55	13,083.89	6,923.99	83,857.25
Delivery - Gooding's Willow Trees	547.0000	EA	3,796.79	455.61	379.68	949.20	502.31	6,083.59
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>25,686.03</b>	<b>3,082.32</b>	<b>2,568.60</b>	<b>6,421.51</b>	<b>3,398.26</b>	<b>41,156.72</b>
(Note: Shrub installed on both sides of the channel every 25 ft.)								
Shrubs	547.0000	EA	25,686.03	3,082.32	2,568.60	6,421.51	3,398.26	41,156.72
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>4.0800</b>	<b>ACR</b>	<b>18,777.09</b>	<b>2,253.25</b>	<b>1,877.71</b>	<b>4,694.27</b>	<b>2,484.21</b>	<b>30,086.53</b>
(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)								
Hydro-Seeding	4.0800	ACR	18,777.09	2,253.25	1,877.71	4,694.27	2,484.21	30,086.53
<b>Watering</b>	<b>4.0800</b>	<b>ACR</b>	<b>17,513.48</b>	<b>2,101.62</b>	<b>1,751.35</b>	<b>4,378.37</b>	<b>2,317.03</b>	<b>28,061.85</b>
(Note: Assume a total of 5 water applications)								
Watering Large Open Area	20.4000	ACR	9,906.81	1,188.82	990.68	2,476.70	1,310.67	15,873.68

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Travel Time	40.8000	EA	7,606.67	912.80	760.67	1,901.67	1,006.36	12,188.17
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>5,426.48</b>	<b>651.18</b>	<b>542.65</b>	<b>1,356.62</b>	<b>717.92</b>	<b>8,694.86</b>
PLUGS	1,428.0000	EA	4,520.25	542.43	452.03	1,130.06	598.03	7,242.80
Delivery - PLUGS	1,428.0000	EA	906.23	108.75	90.62	226.56	119.89	1,452.05
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>41,018.22</b>	<b>0.00</b>	<b>0.00</b>	<b>10,254.56</b>	<b>15,084.45</b>	<b>66,357.23</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1 Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,509.11</b>	<b>0.00</b>	<b>0.00</b>	<b>5,127.28</b>	<b>7,542.23</b>	<b>33,178.62</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>5,064.0000</b>	<b>BCY</b>	<b>15,175.98</b>	<b>0.00</b>	<b>0.00</b>	<b>3,794.00</b>	<b>5,580.97</b>	<b>24,550.95</b>
<b>(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 6,835.5692' * 10'(wide) * 2'(deep)/27 = 5,063.38 BCY.)</b>								
Channel Excavation	5,064.0000	BCY	15,175.98	0.00	0.00	3,794.00	5,580.97	24,550.95
<b>Load/Handle Waste Material</b>	<b>5,823.6000</b>	<b>LCY</b>	<b>5,333.13</b>	<b>0.00</b>	<b>0.00</b>	<b>1,333.28</b>	<b>1,961.26</b>	<b>8,627.67</b>
Load Waste Material	5,823.6000	LCY	5,333.13	0.00	0.00	1,333.28	1,961.26	8,627.67
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,509.11</b>	<b>0.00</b>	<b>0.00</b>	<b>5,127.28</b>	<b>7,542.23</b>	<b>33,178.61</b>
Total O&M for the First Year Dollars	1.0000	EA	20,509.11	0.00	0.00	5,127.28	7,542.23	33,178.61
(Note: This will happen once every five years for a total of two times in 10years.)								
<b>Remove Berms and J.Jacks</b>	<b>6.6200</b>	<b>ACR</b>	<b>241,531.44</b>	<b>28,983.77</b>	<b>24,153.14</b>	<b>60,382.86</b>	<b>31,954.61</b>	<b>387,005.83</b>
<b>remove berm and spread material in designated location</b>	<b>42,718.8600</b>	<b>BCY</b>	<b>128,201.71</b>	<b>15,384.20</b>	<b>12,820.17</b>	<b>32,050.43</b>	<b>16,961.09</b>	<b>205,417.59</b>
<b>(Note: Assumption is 1 acre is 43560 sf x 4 Height = 174,240 cft/27 = 6,453 cyd / 140 cyds per hour for construction = 46 hours per acre )</b>								
<b>Labor</b>	<b>1.0000</b>	<b>EA</b>	<b>55,531.08</b>	<b>6,663.73</b>	<b>5,553.11</b>	<b>13,882.77</b>	<b>7,346.76</b>	<b>88,977.44</b>
Equip. Operators, Medium	304.5200	HR	15,579.91	1,869.59	1,557.99	3,894.98	2,061.22	24,963.69
(Note: Assumed Davis Bacon Power Equip. Operators: Group 4 (Front-end Loader))								
Truck Drivers, Heavy	304.5200	HR	12,021.50	1,442.58	1,202.15	3,005.37	1,590.44	19,262.05
(Note: Assumed Davis Bacon Truck Drivers: Semi-Trailer)								
Equip. Operators, Medium	304.5200	HR	15,579.91	1,869.59	1,557.99	3,894.98	2,061.22	24,963.69

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Assumed Davis Bacon Power Equip. Operators: Group 4 (Front-end Loader))</b>								
Laborers, (Semi-Skilled)	304.5200	HR	12,349.76	1,481.97	1,234.98	3,087.44	1,633.87	19,788.03
(Note: Assumed Davis Bacon Laborers: Group 3: General Laborer)								
<b>Equipment</b>	<b>1.0000</b>	<b>EA</b>	<b>72,670.63</b>	<b>8,720.48</b>	<b>7,267.06</b>	<b>18,167.66</b>	<b>9,614.32</b>	<b>116,440.15</b>
TRUCK OPTION, WATER TANK, 3,000 GAL (11,356 L) (ADD 45,000 LB (20,412 KG) GVW TRUCK)	304.5200	HR	2,645.03	317.40	264.50	661.26	349.94	4,238.14
TRUCK, HIGHWAY, 45,000 LB (20,412 KG) GVW, 6X4, 3 AXLE (ADD ACCESSORIES)	304.5200	HR	14,740.89	1,768.91	1,474.09	3,685.22	1,950.22	23,619.33
LOADER, FRONT END, WHEEL, 3.00 CY BUCKET, ARTICULATED, 4X4	304.5200	HR	23,735.42	2,848.25	2,373.54	5,933.86	3,140.20	38,031.27
GRADER, MOTOR, ARTICULATED, 6X4, 14' BLADE W/5 RIPPER/SCARIFIERS	304.5200	HR	31,549.28	3,785.91	3,154.93	7,887.32	4,173.97	50,551.42
<b>Revegetation</b>	<b>6.6200</b>	<b>ACR</b>	<b>80,665.66</b>	<b>9,679.88</b>	<b>8,066.57</b>	<b>20,166.41</b>	<b>10,672.07</b>	<b>129,250.58</b>
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>21,782.43</b>	<b>2,613.89</b>	<b>2,178.24</b>	<b>5,445.61</b>	<b>2,881.82</b>	<b>34,901.99</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	410.0000	EA	19,252.78	2,310.33	1,925.28	4,813.20	2,547.14	30,848.73
Delivery - Shrubs	410.0000	EA	2,529.65	303.56	252.96	632.41	334.67	4,053.26
(Note: Haul to Waste: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 trees/cycle x 0.45 cycles/ hr = 36 trees/ hr)								
<b>Seeding</b>	<b>6.6200</b>	<b>ACR</b>	<b>30,466.75</b>	<b>3,656.01</b>	<b>3,046.67</b>	<b>7,616.69</b>	<b>4,030.75</b>	<b>48,816.87</b>
Hydro-Seeding	6.6200	ACR	30,466.75	3,656.01	3,046.67	7,616.69	4,030.75	48,816.87
<b>Watering</b>	<b>6.6200</b>	<b>ACR</b>	<b>28,416.48</b>	<b>3,409.98</b>	<b>2,841.65</b>	<b>7,104.12</b>	<b>3,759.50</b>	<b>45,531.73</b>
<b>(Note: Assume a total of 5 water applications over a year for the warranty.)</b>								
Watering Large Open Area	33.1000	ACR	16,074.28	1,928.91	1,607.43	4,018.57	2,126.63	25,755.82
Travel Time	66.2000	EA	12,342.20	1,481.06	1,234.22	3,085.55	1,632.87	19,775.91
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Remove J.Jacks</b>	<b>50.0000</b>	<b>EA</b>	<b>32,664.08</b>	<b>3,919.69</b>	<b>3,266.41</b>	<b>8,166.02</b>	<b>4,321.46</b>	<b>52,337.66</b>
<b>(Note: Assumptions is for 2 hours per J.Jack. Estimated quantity is 50 J.Jacks)</b>								
HYDRAULIC EXCAVATOR, CRAWLER, 40,000 LB (18,144 KG), 1.00 CY (0.8 M3) BUCKET, 19.6' (5.9 M) MAX DIGGING DEPTH	100.0000	HR	7,416.71	890.01	741.67	1,854.18	981.23	11,883.80
HYDRAULIC EXCAVATOR, ATTACHMENT, MOBILE SHEARS, 32" (0.8 M) JAW OPENING, 13'4" (4.1 M) REACH (ADD TO 60,000 LB (27,216 KG) HYDRAULIC EXCAVATOR)	100.0000	HR	6,903.77	828.45	690.38	1,725.94	913.37	11,061.91

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Equip. Operators, Heavy (Note: Assumed Davis Bacon Power Equip. Operators: Group 1 General Decision Number: WA120001 02/17/2012 WA1)	100.0000	HR	6,091.55	730.99	609.15	1,522.89	805.91	9,760.49
Outside Laborers, Group 4 Skilled	300.0000	HR	12,252.05	1,470.25	1,225.21	3,063.01	1,620.95	19,631.47
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>40,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10,000.00</b>	<b>14,710.00</b>	<b>64,710.00</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost (Note: This cost was provided by the environmental section. The cost totaled \$4,000.00 per year for a total of 10 years =)	10.0000	YR	40,000.00	0.00	0.00	10,000.00	14,710.00	64,710.00
<b>Project ID #18</b>	<b>1.0000</b>	<b>LS</b>	<b>826,547.47</b>	<b>91,053.65</b>	<b>75,878.04</b>	<b>206,636.87</b>	<b>125,307.98</b>	<b>1,325,424.01</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>826,547.47</b>	<b>91,053.65</b>	<b>75,878.04</b>	<b>206,636.87</b>	<b>125,307.98</b>	<b>1,325,424.01</b>
<b>Treat-Retreat-Reveg</b>	<b>13.0800</b>	<b>ACR</b>	<b>381,335.91</b>	<b>42,494.02</b>	<b>35,411.68</b>	<b>95,333.98</b>	<b>56,859.47</b>	<b>611,435.07</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>13.0800</b>	<b>ACR</b>	<b>76,953.58</b>	<b>9,234.43</b>	<b>7,695.36</b>	<b>19,238.39</b>	<b>10,180.96</b>	<b>123,302.71</b>
VEG REMOVAL ABOVE GROUND (Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)	13.0800	ACR	14,760.69	1,771.28	1,476.07	3,690.17	1,952.84	23,651.05
Exotic Species Removal Herbicide Treatment (Note: Quantity is times 2, because of the Treat and Retreat applications.)	26.1600	ACR	62,192.89	7,463.15	6,219.29	15,548.22	8,228.12	99,651.66
<b>Revegetation</b>	<b>13.0800</b>	<b>ACR</b>	<b>277,163.27</b>	<b>33,259.59</b>	<b>27,716.33</b>	<b>69,290.82</b>	<b>36,668.70</b>	<b>444,098.71</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>125,588.17</b>	<b>15,070.58</b>	<b>12,558.82</b>	<b>31,397.04</b>	<b>16,615.31</b>	<b>201,229.93</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	392.4000	EA	49,040.71	5,884.89	4,904.07	12,260.18	6,488.09	78,577.93
Delivery - Cottonwood Trees (Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)	392.4000	EA	2,723.69	326.84	272.37	680.92	360.34	4,364.17
Gooding's Willows	719.4000	EA	68,830.33	8,259.64	6,883.03	17,207.58	9,106.25	110,286.84
Delivery - Gooding's Willow Trees (Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)	719.4000	EA	4,993.43	599.21	499.34	1,248.36	660.63	8,000.98
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>83,389.52</b>	<b>10,006.74</b>	<b>8,338.95</b>	<b>20,847.38</b>	<b>11,032.43</b>	<b>133,615.02</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	1,569.6000	EA	73,705.28	8,844.63	7,370.53	18,426.32	9,751.21	118,097.97
Delivery - Shrubs	1,569.6000	EA	9,684.23	1,162.11	968.42	2,421.06	1,281.22	15,517.05

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>2.6160</b>	<b>ACR</b>	<b>12,039.43</b>	<b>1,444.73</b>	<b>1,203.94</b>	<b>3,009.86</b>	<b>1,592.82</b>	<b>19,290.77</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	2.6160	ACR	12,039.43	1,444.73	1,203.94	3,009.86	1,592.82	19,290.77
<b>Watering</b>	<b>13.0800</b>	<b>ACR</b>	<b>56,146.16</b>	<b>6,737.54</b>	<b>5,614.62</b>	<b>14,036.54</b>	<b>7,428.14</b>	<b>89,962.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	65.4000	ACR	31,760.06	3,811.21	3,176.01	7,940.01	4,201.86	50,889.14
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	130.8000	EA	24,386.10	2,926.33	2,438.61	6,096.53	3,226.28	39,073.85
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>27,219.06</b>	<b>0.00</b>	<b>0.00</b>	<b>6,804.77</b>	<b>10,009.81</b>	<b>44,033.64</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>9,073.02</b>	<b>0.00</b>	<b>0.00</b>	<b>2,268.26</b>	<b>3,336.60</b>	<b>14,677.88</b>
<b>Treat-Retreat-Reveg</b>	<b>0.6540</b>	<b>ACR</b>	<b>9,073.02</b>	<b>0.00</b>	<b>0.00</b>	<b>2,268.26</b>	<b>3,336.60</b>	<b>14,677.88</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.6540</b>	<b>ACR</b>	<b>1,968.02</b>	<b>0.00</b>	<b>0.00</b>	<b>492.00</b>	<b>723.74</b>	<b>3,183.76</b>
VEG REMOVAL ABOVE GROUND	0.6540	ACR	377.28	0.00	0.00	94.32	138.74	610.34
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	1.3080	ACR	1,590.74	0.00	0.00	397.69	585.00	2,573.42
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>0.6540</b>	<b>ACR</b>	<b>7,105.01</b>	<b>0.00</b>	<b>0.00</b>	<b>1,776.25</b>	<b>2,612.87</b>	<b>11,494.12</b>
<b>Tree Plantings</b>	<b>0.6540</b>	<b>ACR</b>	<b>3,241.39</b>	<b>0.00</b>	<b>0.00</b>	<b>810.35</b>	<b>1,192.02</b>	<b>5,243.76</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	20.0000	EA	1,279.49	0.00	0.00	319.87	470.53	2,069.90
Delivery - Cottonwood Trees	20.0000	EA	71.00	0.00	0.00	17.75	26.11	114.87
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	36.0000	EA	1,763.09	0.00	0.00	440.77	648.37	2,852.23
Delivery - Gooding's Willow Trees	36.0000	EA	127.81	0.00	0.00	31.95	47.00	206.76
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>2,120.72</b>	<b>0.00</b>	<b>0.00</b>	<b>530.18</b>	<b>779.89</b>	<b>3,430.79</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	78.0000	EA	1,874.57	0.00	0.00	468.64	689.37	3,032.59
Delivery - Shrubs	78.0000	EA	246.15	0.00	0.00	61.54	90.52	398.20
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.1308</b>	<b>ACR</b>	<b>307.97</b>	<b>0.00</b>	<b>0.00</b>	<b>76.99</b>	<b>113.26</b>	<b>498.22</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.1308	ACR	307.97	0.00	0.00	76.99	113.26	498.22
<b>Watering</b>	<b>0.6540</b>	<b>ACR</b>	<b>1,434.93</b>	<b>0.00</b>	<b>0.00</b>	<b>358.73</b>	<b>527.70</b>	<b>2,321.36</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	3.2700	ACR	811.72	0.00	0.00	202.93	298.51	1,313.15
(Note: Water 5 times in the contract life.)								
Travel Time	6.5400	EA	623.21	0.00	0.00	155.80	229.19	1,008.20
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>18,146.04</b>	<b>0.00</b>	<b>0.00</b>	<b>4,536.51</b>	<b>6,673.21</b>	<b>29,355.76</b>
Total O&M for the First Year Dollars	2.0000	EA	18,146.04	0.00	0.00	4,536.51	6,673.21	29,355.76
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>2.7400</b>	<b>ACR</b>	<b>432,211.55</b>	<b>48,559.63</b>	<b>40,466.36</b>	<b>108,052.89</b>	<b>63,667.76</b>	<b>692,958.19</b>
<b>High Flow Channel</b>	<b>4,590.5538</b>	<b>LF</b>	<b>432,211.55</b>	<b>48,559.63</b>	<b>40,466.36</b>	<b>108,052.89</b>	<b>63,667.76</b>	<b>692,958.19</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>2,210.2667</b>	<b>LCY</b>	<b>42,015.73</b>	<b>5,041.89</b>	<b>4,201.57</b>	<b>10,503.93</b>	<b>5,558.68</b>	<b>67,321.81</b>
<b>Clearing</b>	<b>2,210.2667</b>	<b>LCY</b>	<b>9,933.82</b>	<b>1,192.06</b>	<b>993.38</b>	<b>2,483.46</b>	<b>1,314.24</b>	<b>15,916.96</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	2,210.0000	LCY	7,530.85	903.70	753.09	1,882.71	996.33	12,066.69
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	2.7400	ACR	2,402.97	288.36	240.30	600.74	317.91	3,850.28
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>2,541.8067</b>	<b>LCY</b>	<b>32,081.91</b>	<b>3,849.83</b>	<b>3,208.19</b>	<b>8,020.48</b>	<b>4,244.44</b>	<b>51,404.85</b>
<b>(Note: Haul to Waste:)</b>								



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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load, Haul and Dispose	2,541.8067	LCY	32,081.91	3,849.83	3,208.19	8,020.48	4,244.44	51,404.85
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>12,241.4769</b>	<b>BCY</b>	<b>55,782.41</b>	<b>6,693.89</b>	<b>5,578.24</b>	<b>13,945.60</b>	<b>7,380.01</b>	<b>89,380.15</b>
Channel Excavation	12,241.4769	BCY	55,782.41	6,693.89	5,578.24	13,945.60	7,380.01	89,380.15
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>14,281.7231</b>	<b>SY</b>	<b>16,321.24</b>	<b>1,958.55</b>	<b>1,632.12</b>	<b>4,080.31</b>	<b>2,159.30</b>	<b>26,151.53</b>
Rough Grading	14,281.7231	SY	16,321.24	1,958.55	1,632.12	4,080.31	2,159.30	26,151.53
<b>Compaction</b>	<b>4,760.5744</b>	<b>ECY</b>	<b>14,085.25</b>	<b>1,690.23</b>	<b>1,408.53</b>	<b>3,521.31</b>	<b>1,863.48</b>	<b>22,568.80</b>
Compaction	4,761.0000	ECY	14,085.25	1,690.23	1,408.53	3,521.31	1,863.48	22,568.80
<b>Load/Handle Waste Material</b>	<b>14,077.6985</b>	<b>LCY</b>	<b>19,601.14</b>	<b>2,352.14</b>	<b>1,960.11</b>	<b>4,900.28</b>	<b>2,593.23</b>	<b>31,406.90</b>
Load Waste Material	14,077.6985	LCY	19,601.14	2,352.14	1,960.11	4,900.28	2,593.23	31,406.90
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>14,077.6985</b>	<b>LCY</b>	<b>57,934.27</b>	<b>6,952.11</b>	<b>5,793.43</b>	<b>14,483.57</b>	<b>7,664.70</b>	<b>92,828.09</b>
Haul Waste Material	14,077.6985	LCY	57,934.27	6,952.11	5,793.43	14,483.57	7,664.70	92,828.09
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>4,590.5538</b>	<b>LF</b>	<b>198,923.52</b>	<b>23,870.82</b>	<b>19,892.35</b>	<b>49,730.88</b>	<b>26,317.58</b>	<b>318,735.16</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>153,674.07</b>	<b>18,440.89</b>	<b>15,367.41</b>	<b>38,418.52</b>	<b>20,331.08</b>	<b>246,231.96</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	184.0000	EA	22,995.65	2,759.48	2,299.56	5,748.91	3,042.32	36,845.92
Delivery - Cottonwood Trees	184.0000	EA	1,277.16	153.26	127.72	319.29	168.97	2,046.40
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	6,121.0000	EA	80,950.03	9,714.00	8,095.00	20,237.51	10,709.69	129,706.24
Delivery - Coyote Willows	6,121.0000	EA	10,790.23	1,294.83	1,079.02	2,697.56	1,427.55	17,289.18
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	367.0000	EA	35,113.61	4,213.63	3,511.36	8,778.40	4,645.53	56,262.54
Delivery - Gooding's Willow Trees	367.0000	EA	2,547.39	305.69	254.74	636.85	337.02	4,081.68

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>17,233.59</b>	<b>2,068.03</b>	<b>1,723.36</b>	<b>4,308.40</b>	<b>2,280.00</b>	<b>27,613.38</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	367.0000	EA	17,233.59	2,068.03	1,723.36	4,308.40	2,280.00	27,613.38
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>2.7400</b>	<b>ACR</b>	<b>12,610.10</b>	<b>1,513.21</b>	<b>1,261.01</b>	<b>3,152.53</b>	<b>1,668.32</b>	<b>20,205.17</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	2.7400	ACR	12,610.10	1,513.21	1,261.01	3,152.53	1,668.32	20,205.17
<b>Watering</b>	<b>2.7400</b>	<b>ACR</b>	<b>11,761.50</b>	<b>1,411.38</b>	<b>1,176.15</b>	<b>2,940.38</b>	<b>1,556.05</b>	<b>18,845.46</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	13.7000	ACR	6,653.10	798.37	665.31	1,663.28	880.21	10,660.26
Travel Time	27.4000	EA	5,108.40	613.01	510.84	1,277.10	675.84	8,185.19
<b>(Note: Assumption is that there will be 1hr of travel to project site.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>3,644.26</b>	<b>437.31</b>	<b>364.43</b>	<b>911.06</b>	<b>482.14</b>	<b>5,839.19</b>
PLUGS	959.0000	EA	3,035.66	364.28	303.57	758.92	401.62	4,864.04
Delivery - PLUGS	959.0000	EA	608.60	73.03	60.86	152.15	80.52	975.15
<b>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</b>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>27,547.98</b>	<b>0.00</b>	<b>0.00</b>	<b>6,887.00</b>	<b>10,130.77</b>	<b>44,565.75</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>13,773.99</b>	<b>0.00</b>	<b>0.00</b>	<b>3,443.50</b>	<b>5,065.39</b>	<b>22,282.87</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>3,401.0000</b>	<b>BCY</b>	<b>10,192.24</b>	<b>0.00</b>	<b>0.00</b>	<b>2,548.06</b>	<b>3,748.20</b>	<b>16,488.50</b>
<b>(Note: Excavation is estimtated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr.4,591' * 10'(wide) * 2' (deep)/27 = 3,400.74 BCY.)</b>								
Channel Excavation	3,401.0000	BCY	10,192.24	0.00	0.00	2,548.06	3,748.20	16,488.50

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>3,911.1500</b>	<b>LCY</b>	<b>3,581.75</b>	<b>0.00</b>	<b>0.00</b>	<b>895.44</b>	<b>1,317.19</b>	<b>5,794.37</b>
Load Waste Material	3,911.1500	LCY	3,581.75	0.00	0.00	895.44	1,317.19	5,794.37
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>13,773.99</b>	<b>0.00</b>	<b>0.00</b>	<b>3,443.50</b>	<b>5,065.38</b>	<b>22,282.87</b>
Total O&M for the First Year Dollars	1.0000	EA	13,773.99	0.00	0.00	3,443.50	5,065.38	22,282.87
(Note: This will happen once every five years for a total of two times in 10 years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>13,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3,250.00</b>	<b>4,780.75</b>	<b>21,030.75</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	13,000.00	0.00	0.00	3,250.00	4,780.75	21,030.75
(Note: This cost was provided by the environmental section. The cost totaled \$1,300.00 per year for a total of 10 years =)								
<b>Project ID #19</b>	<b>1.0000</b>	<b>LS</b>	<b>869,671.19</b>	<b>99,663.94</b>	<b>83,053.29</b>	<b>217,417.80</b>	<b>124,272.62</b>	<b>1,394,078.84</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>869,671.19</b>	<b>99,663.94</b>	<b>83,053.29</b>	<b>217,417.80</b>	<b>124,272.62</b>	<b>1,394,078.84</b>
<b>Connect to River</b>	<b>0.8300</b>	<b>ACR</b>	<b>61,109.24</b>	<b>6,832.04</b>	<b>5,693.37</b>	<b>15,277.31</b>	<b>9,067.88</b>	<b>97,979.84</b>
<b>Connect to River</b>	<b>1,390.5692</b>	<b>LF</b>	<b>61,109.24</b>	<b>6,832.04</b>	<b>5,693.37</b>	<b>15,277.31</b>	<b>9,067.88</b>	<b>97,979.84</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>669.5333</b>	<b>LCY</b>	<b>12,729.26</b>	<b>1,527.51</b>	<b>1,272.93</b>	<b>3,182.31</b>	<b>1,684.08</b>	<b>20,396.09</b>
<b>Clearing</b>	<b>669.5333</b>	<b>LCY</b>	<b>3,011.02</b>	<b>361.32</b>	<b>301.10</b>	<b>752.75</b>	<b>398.36</b>	<b>4,824.55</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	670.0000	LCY	2,283.11	273.97	228.31	570.78	302.06	3,658.23
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	0.8300	ACR	727.91	87.35	72.79	181.98	96.30	1,166.32
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>769.9633</b>	<b>LCY</b>	<b>9,718.24</b>	<b>1,166.19</b>	<b>971.82</b>	<b>2,429.56</b>	<b>1,285.72</b>	<b>15,571.54</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	769.9633	LCY	9,718.24	1,166.19	971.82	2,429.56	1,285.72	15,571.54
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>3,708.1846</b>	<b>BCY</b>	<b>16,897.59</b>	<b>2,027.71</b>	<b>1,689.76</b>	<b>4,224.40</b>	<b>2,235.55</b>	<b>27,075.01</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Channel Excavation	3,708.1846	BCY	16,897.59	2,027.71	1,689.76	4,224.40	2,235.55	27,075.01
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Load/Handle Waste Material</b>	<b>4,264.4123</b>	<b>LCY</b>	<b>5,937.57</b>	<b>712.51</b>	<b>593.76</b>	<b>1,484.39</b>	<b>785.54</b>	<b>9,513.77</b>
Load Waste Material	4,264.4123	LCY	5,937.57	712.51	593.76	1,484.39	785.54	9,513.77
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>4,264.4123</b>	<b>LCY</b>	<b>17,549.43</b>	<b>2,105.93</b>	<b>1,754.94</b>	<b>4,387.36</b>	<b>2,321.79</b>	<b>28,119.46</b>
Haul Waste Material	4,264.4123	LCY	17,549.43	2,105.93	1,754.94	4,387.36	2,321.79	28,119.46
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = approx 138 lcy).)								
<b>Revegetation</b>	<b>1,390.5692</b>	<b>LF</b>	<b>3,819.85</b>	<b>458.38</b>	<b>381.98</b>	<b>954.96</b>	<b>505.37</b>	<b>6,120.54</b>
<b>Seeding</b>	<b>0.8300</b>	<b>ACR</b>	<b>3,819.85</b>	<b>458.38</b>	<b>381.98</b>	<b>954.96</b>	<b>505.37</b>	<b>6,120.54</b>
(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)								
Hydro-Seeding	0.8300	ACR	3,819.85	458.38	381.98	954.96	505.37	6,120.54
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>4,175.53</b>	<b>0.00</b>	<b>0.00</b>	<b>1,043.88</b>	<b>1,535.55</b>	<b>6,754.97</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
<b>O&amp;M (10 Year)</b>	<b>2.0000</b>	<b>EA</b>	<b>4,175.53</b>	<b>0.00</b>	<b>0.00</b>	<b>1,043.88</b>	<b>1,535.55</b>	<b>6,754.97</b>
(Note: Per H&H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)								
<b>Channel Excavation</b>	<b>1,031.0000</b>	<b>BCY</b>	<b>3,089.74</b>	<b>0.00</b>	<b>0.00</b>	<b>772.43</b>	<b>1,136.25</b>	<b>4,998.43</b>
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 1,391' * 10'(wide) * 2' (deep)/27 = 1,030.37 BCY.)								
Channel Excavation	1,031.0000	BCY	3,089.74	0.00	0.00	772.43	1,136.25	4,998.43
<b>Load/Handle Waste Material</b>	<b>1,185.6500</b>	<b>LCY</b>	<b>1,085.79</b>	<b>0.00</b>	<b>0.00</b>	<b>271.45</b>	<b>399.30</b>	<b>1,756.54</b>
Load Waste Material	1,185.6500	LCY	1,085.79	0.00	0.00	271.45	399.30	1,756.54
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Wet Meadow (Water Feature)</b>	<b>8.9800</b>	<b>ACR</b>	<b>742,280.10</b>	<b>86,839.15</b>	<b>72,365.96</b>	<b>185,570.02</b>	<b>102,587.86</b>	<b>1,189,643.08</b>
(Note: Assume an average 3 ft depth from existing grade. )								
<b>Vegetation Removal</b>	<b>7,243.8667</b>	<b>LCY</b>	<b>137,704.18</b>	<b>16,524.50</b>	<b>13,770.42</b>	<b>34,426.05</b>	<b>18,218.26</b>	<b>220,643.41</b>
(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)								
<b>Clearing</b>	<b>7,243.8667</b>	<b>LCY</b>	<b>32,559.81</b>	<b>3,907.18</b>	<b>3,255.98</b>	<b>8,139.95</b>	<b>4,307.66</b>	<b>52,170.59</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
VEG REMOVAL ABOVE GROUND	8.9800	ACR	7,875.42	945.05	787.54	1,968.85	1,041.92	12,618.78
Clearing Large Site	7,243.8667	LCY	24,684.39	2,962.13	2,468.44	6,171.10	3,265.75	39,551.80
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>8,330.4467</b>	<b>LCY</b>	<b>105,144.37</b>	<b>12,617.32</b>	<b>10,514.44</b>	<b>26,286.09</b>	<b>13,910.60</b>	<b>168,472.82</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	8,330.4467	LCY	105,144.37	12,617.32	10,514.44	26,286.09	13,910.60	168,472.82
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>43,463.2000</b>	<b>BCY</b>	<b>213,440.03</b>	<b>25,612.80</b>	<b>21,344.00</b>	<b>53,360.01</b>	<b>28,238.12</b>	<b>341,994.96</b>
Excavation, Random	43,463.2000	CY	213,440.03	25,612.80	21,344.00	53,360.01	28,238.12	341,994.96
<b>Rough Grading</b>	<b>43,463.2000</b>	<b>SY</b>	<b>21,523.68</b>	<b>2,582.84</b>	<b>2,152.37</b>	<b>5,380.92</b>	<b>2,847.58</b>	<b>34,487.39</b>
Rough Grading	43,463.2000	SY	21,523.68	2,582.84	2,152.37	5,380.92	2,847.58	34,487.39
<b>Compaction</b>	<b>14,487.7333</b>	<b>ECY</b>	<b>21,541.01</b>	<b>2,584.92</b>	<b>2,154.10</b>	<b>5,385.25</b>	<b>2,849.88</b>	<b>34,515.15</b>
Compaction	14,487.7333	ECY	21,541.01	2,584.92	2,154.10	5,385.25	2,849.88	34,515.15
<b>Load/Handle Waste Material</b>	<b>49,982.6800</b>	<b>LCY</b>	<b>69,593.58</b>	<b>8,351.23</b>	<b>6,959.36</b>	<b>17,398.39</b>	<b>9,207.23</b>	<b>111,509.79</b>
Load Waste Material	49,982.6800	LCY	69,593.58	8,351.23	6,959.36	17,398.39	9,207.23	111,509.79
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>49,982.6800</b>	<b>LCY</b>	<b>205,694.86</b>	<b>24,683.38</b>	<b>20,569.49</b>	<b>51,423.72</b>	<b>27,213.43</b>	<b>329,584.88</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	49,982.6800	LCY	205,694.86	24,683.38	20,569.49	51,423.72	27,213.43	329,584.88
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>8.9800</b>	<b>ACR</b>	<b>54,162.24</b>	<b>6,499.47</b>	<b>5,416.22</b>	<b>13,540.56</b>	<b>7,165.66</b>	<b>86,784.16</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>20,037.71</b>	<b>2,404.53</b>	<b>2,003.77</b>	<b>5,009.43</b>	<b>2,650.99</b>	<b>32,106.42</b>
<b>(Note: Assume 42 shrubs per acre.)</b>								
Shrubs	377.1600	EA	17,710.68	2,125.28	1,771.07	4,427.67	2,343.12	28,377.82
Delivery - Shrubs	377.1600	EA	2,327.03	279.24	232.70	581.76	307.87	3,728.60
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>34,124.53</b>	<b>4,094.94</b>	<b>3,412.45</b>	<b>8,531.13</b>	<b>4,514.68</b>	<b>54,677.74</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	8,980.0000	EA	28,425.69	3,411.08	2,842.57	7,106.42	3,760.72	45,546.48
Delivery - PLUGS	8,980.0000	EA	5,698.85	683.86	569.88	1,424.71	753.96	9,131.27
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>18,620.52</b>	<b>0.00</b>	<b>0.00</b>	<b>4,655.13</b>	<b>6,847.70</b>	<b>30,123.35</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>6,206.84</b>	<b>0.00</b>	<b>0.00</b>	<b>1,551.71</b>	<b>2,282.57</b>	<b>10,041.12</b>
<b>Treat-Retreat-Reveg</b>	<b>0.4490</b>	<b>ACR</b>	<b>6,206.84</b>	<b>0.00</b>	<b>0.00</b>	<b>1,551.71</b>	<b>2,282.57</b>	<b>10,041.12</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4490</b>	<b>ACR</b>	<b>1,351.13</b>	<b>0.00</b>	<b>0.00</b>	<b>337.78</b>	<b>496.88</b>	<b>2,185.79</b>
VEG REMOVAL ABOVE GROUND	0.4490	ACR	259.02	0.00	0.00	64.75	95.25	419.02
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.8980	ACR	1,092.11	0.00	0.00	273.03	401.63	1,766.77
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.4490</b>	<b>ACR</b>	<b>4,855.71</b>	<b>0.00</b>	<b>0.00</b>	<b>1,213.93</b>	<b>1,785.69</b>	<b>7,855.32</b>
<b>Tree Plantings</b>	<b>0.4490</b>	<b>ACR</b>	<b>2,190.94</b>	<b>0.00</b>	<b>0.00</b>	<b>547.74</b>	<b>805.72</b>	<b>3,544.40</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	13.0000	EA	831.67	0.00	0.00	207.92	305.85	1,345.43
Delivery - Cottonwood Trees	13.0000	EA	46.15	0.00	0.00	11.54	16.97	74.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	25.0000	EA	1,224.37	0.00	0.00	306.09	450.26	1,980.72
Delivery - Gooding's Willow Trees	25.0000	EA	88.75	0.00	0.00	22.19	32.64	143.58
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,468.19</b>	<b>0.00</b>	<b>0.00</b>	<b>367.05</b>	<b>539.93</b>	<b>2,375.16</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	54.0000	EA	1,297.78	0.00	0.00	324.45	477.26	2,099.49
Delivery - Shrubs	54.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>0.0898</b>	<b>ACR</b>	<b>211.43</b>	<b>0.00</b>	<b>0.00</b>	<b>52.86</b>	<b>77.76</b>	<b>342.05</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0898	ACR	211.43	0.00	0.00	52.86	77.76	342.05
<b>Watering</b>	<b>0.4490</b>	<b>ACR</b>	<b>985.14</b>	<b>0.00</b>	<b>0.00</b>	<b>246.29</b>	<b>362.29</b>	<b>1,593.71</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.2450	ACR	557.28	0.00	0.00	139.32	204.94	901.54
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	4.4900	EA	427.86	0.00	0.00	106.97	157.35	692.18
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>12,413.68</b>	<b>0.00</b>	<b>0.00</b>	<b>3,103.42</b>	<b>4,565.13</b>	<b>20,082.23</b>
Total O&M for the First Year Dollars	2.0000	EA	12,413.68	0.00	0.00	3,103.42	4,565.13	20,082.23
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Enhance Ditch for Wet Habitat</b>	<b>0.6300</b>	<b>ACR</b>	<b>56,281.86</b>	<b>5,992.75</b>	<b>4,993.96</b>	<b>14,070.47</b>	<b>8,939.38</b>	<b>90,278.42</b>
<b>High Flow Channel</b>	<b>1,055.4923</b>	<b>LF</b>	<b>56,281.86</b>	<b>5,992.75</b>	<b>4,993.96</b>	<b>14,070.47</b>	<b>8,939.38</b>	<b>90,278.42</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>508.2000</b>	<b>LCY</b>	<b>552.51</b>	<b>66.30</b>	<b>55.25</b>	<b>138.13</b>	<b>73.10</b>	<b>885.28</b>
<b>Clearing</b>	<b>508.2000</b>	<b>LCY</b>	<b>552.51</b>	<b>66.30</b>	<b>55.25</b>	<b>138.13</b>	<b>73.10</b>	<b>885.28</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
VEG REMOVAL ABOVE GROUND	0.6300	ACR	552.51	66.30	55.25	138.13	73.10	885.28
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
<b>Rough Grading</b>	<b>3,283.7538</b>	<b>SY</b>	<b>3,752.69</b>	<b>450.32</b>	<b>375.27</b>	<b>938.17</b>	<b>496.48</b>	<b>6,012.94</b>
Rough Grading	3,283.7538	SY	3,752.69	450.32	375.27	938.17	496.48	6,012.94
<b>Revegetation</b>	<b>1,055.4923</b>	<b>LF</b>	<b>45,634.39</b>	<b>5,476.13</b>	<b>4,563.44</b>	<b>11,408.60</b>	<b>6,037.43</b>	<b>73,119.98</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>35,248.31</b>	<b>4,229.80</b>	<b>3,524.83</b>	<b>8,812.08</b>	<b>4,663.35</b>	<b>56,478.37</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	42.0000	EA	5,249.01	629.88	524.90	1,312.25	694.44	8,410.48
Delivery - Cottonwood Trees	42.0000	EA	291.53	34.98	29.15	72.88	38.57	467.11

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Coyote Willows	1,407.0000	EA	18,607.53	2,232.90	1,860.75	4,651.88	2,461.78	29,814.85
Delivery - Coyote Willows	1,407.0000	EA	2,480.29	297.63	248.03	620.07	328.14	3,974.17
<b>(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)</b>								
Gooding's Willows	84.0000	EA	8,036.90	964.43	803.69	2,009.23	1,063.28	12,877.53
Delivery - Gooding's Willow Trees	84.0000	EA	583.05	69.97	58.31	145.76	77.14	934.23
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,944.47</b>	<b>473.34</b>	<b>394.45</b>	<b>986.12</b>	<b>521.85</b>	<b>6,320.23</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	84.0000	EA	3,944.47	473.34	394.45	986.12	521.85	6,320.23
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>0.6300</b>	<b>ACR</b>	<b>2,899.40</b>	<b>347.93</b>	<b>289.94</b>	<b>724.85</b>	<b>383.59</b>	<b>4,645.71</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	0.6300	ACR	2,899.40	347.93	289.94	724.85	383.59	4,645.71
<b>Watering</b>	<b>0.6300</b>	<b>ACR</b>	<b>2,704.29</b>	<b>324.51</b>	<b>270.43</b>	<b>676.07</b>	<b>357.78</b>	<b>4,333.08</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	3.1500	ACR	1,529.73	183.57	152.97	382.43	202.38	2,451.08
Travel Time	6.3000	EA	1,174.56	140.95	117.46	293.64	155.39	1,882.00
<b>(Note: Assumption is that there will be 1hr of travel to project site.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>837.91</b>	<b>100.55</b>	<b>83.79</b>	<b>209.48</b>	<b>110.86</b>	<b>1,342.59</b>
PLUGS	220.5000	EA	697.98	83.76	69.80	174.50	92.34	1,118.37
Delivery - PLUGS	220.5000	EA	139.93	16.79	13.99	34.98	18.51	224.21
<b>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</b>								
<b>O&amp;M Cost</b>	<b>2.0000</b>	<b>EA</b>	<b>6,342.28</b>	<b>0.00</b>	<b>0.00</b>	<b>1,585.57</b>	<b>2,332.37</b>	<b>10,260.22</b>



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
O&M (10 Year)	1.0000	EA	3,171.14	0.00	0.00	792.78	1,166.19	5,130.11
Channel Excavation	783.0000	BCY	2,346.52	0.00	0.00	586.63	862.93	3,796.09
<b>(Note: Excavation is estimtated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 1,056' * 10'(wide) * 2' (deep)/27 = 782.22 BCY.)</b>								
Channel Excavation	783.0000	BCY	2,346.52	0.00	0.00	586.63	862.93	3,796.09
Load/Handle Waste Material	900.4500	LCY	824.61	0.00	0.00	206.15	303.25	1,334.02
Load Waste Material	900.4500	LCY	824.61	0.00	0.00	206.15	303.25	1,334.02
<b>(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)</b>								
O&M (5 years)	1.0000	EA	3,171.14	0.00	0.00	792.79	1,166.19	5,130.11
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
Total O&M for the First Year Dollars	1.0000	EA	3,171.14	0.00	0.00	792.79	1,166.19	5,130.11
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
Annual Site Assessment	1.0000	EA	10,000.00	0.00	0.00	2,500.00	3,677.50	16,177.50
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	10,000.00	0.00	0.00	2,500.00	3,677.50	16,177.50
<b>(Note: This cost was provided by the environmental section. The cost totaled \$1,000.00 per year for a total of 10 years =)</b>								
Project ID #20	1.0000	LS	3,588,874.63	413,474.29	344,561.91	897,218.66	508,537.63	5,752,667.12
Fish and Wildlife Facilities	1.0000	LS	3,588,874.63	413,474.29	344,561.91	897,218.66	508,537.63	5,752,667.12
Swale	8.3400	ACR	1,345,878.28	161,053.65	134,211.38	336,469.57	178,946.05	2,156,558.93
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
Vegetation Removal	6,727.6000	LCY	127,890.07	15,346.81	12,789.01	31,972.52	16,919.86	204,918.27
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
Clearing	6,727.6000	LCY	30,239.29	3,628.71	3,023.93	7,559.82	4,000.66	48,452.42
VEG REMOVAL ABOVE GROUND	8.3400	ACR	7,314.14	877.70	731.41	1,828.54	967.66	11,719.45
Clearing Large Site	6,727.6000	LCY	22,925.15	2,751.02	2,292.51	5,731.29	3,033.00	36,732.97
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
Haul Waste	7,736.7400	LCY	97,650.78	11,718.09	9,765.08	24,412.70	12,919.20	156,465.85

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	7,736.7400	LCY	97,650.78	11,718.09	9,765.08	24,412.70	12,919.20	156,465.85
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>40,365.6000</b>	<b>BCY</b>	<b>198,228.27</b>	<b>23,787.39</b>	<b>19,822.83</b>	<b>49,557.07</b>	<b>26,225.60</b>	<b>317,621.15</b>
Excavation, Random	40,365.6000	CY	198,228.27	23,787.39	19,822.83	49,557.07	26,225.60	317,621.15
<b>Rough Grading</b>	<b>40,365.6000</b>	<b>SY</b>	<b>19,989.70</b>	<b>2,398.76</b>	<b>1,998.97</b>	<b>4,997.42</b>	<b>2,644.64</b>	<b>32,029.49</b>
Rough Grading	40,365.6000	SY	19,989.70	2,398.76	1,998.97	4,997.42	2,644.64	32,029.49
<b>Compaction</b>	<b>13,455.2000</b>	<b>ECY</b>	<b>20,005.79</b>	<b>2,400.69</b>	<b>2,000.58</b>	<b>5,001.45</b>	<b>2,646.77</b>	<b>32,055.28</b>
Compaction	13,455.2000	ECY	20,005.79	2,400.69	2,000.58	5,001.45	2,646.77	32,055.28
<b>Load/Handle Waste Material</b>	<b>46,420.4400</b>	<b>LCY</b>	<b>64,633.68</b>	<b>7,756.04</b>	<b>6,463.37</b>	<b>16,158.42</b>	<b>8,551.04</b>	<b>103,562.54</b>
Load Waste Material	46,420.4400	LCY	64,633.68	7,756.04	6,463.37	16,158.42	8,551.04	103,562.54
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>46,420.4400</b>	<b>LCY</b>	<b>191,035.10</b>	<b>22,924.21</b>	<b>19,103.51</b>	<b>47,758.77</b>	<b>25,273.94</b>	<b>306,095.53</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	46,420.4400	LCY	191,035.10	22,924.21	19,103.51	47,758.77	25,273.94	306,095.53
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>8.3400</b>	<b>ACR</b>	<b>720,331.16</b>	<b>86,439.74</b>	<b>72,033.12</b>	<b>180,082.79</b>	<b>95,299.81</b>	<b>1,154,186.63</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>681,767.43</b>	<b>81,812.09</b>	<b>68,176.74</b>	<b>170,441.86</b>	<b>90,197.83</b>	<b>1,092,395.95</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	225.1800	EA	28,142.17	3,377.06	2,814.22	7,035.54	3,723.21	45,092.20
Delivery - Cottonwood Trees	225.1800	EA	1,563.00	187.56	156.30	390.75	206.78	2,504.39
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	40,365.6000	EA	533,833.80	64,060.06	53,383.38	133,458.45	70,626.21	855,361.90
Delivery - Coyote Willows	40,365.6000	EA	71,157.34	8,538.88	7,115.73	17,789.33	9,414.12	114,015.40
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	458.7000	EA	43,887.23	5,266.47	4,388.72	10,971.81	5,806.28	70,320.51

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	458.7000	EA	3,183.89	382.07	318.39	795.97	421.23	5,101.54
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>27,471.36</b>	<b>3,296.56</b>	<b>2,747.14</b>	<b>6,867.84</b>	<b>3,634.46</b>	<b>44,017.36</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	517.0800	EA	24,281.04	2,913.73	2,428.10	6,070.26	3,212.38	38,905.52
Delivery - Shrubs	517.0800	EA	3,190.32	382.84	319.03	797.58	422.08	5,111.85
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>11,092.37</b>	<b>1,331.08</b>	<b>1,109.24</b>	<b>2,773.09</b>	<b>1,467.52</b>	<b>17,773.31</b>
PLUGS	2,919.0000	EA	9,239.93	1,108.79	923.99	2,309.98	1,222.44	14,805.14
Delivery - PLUGS	2,919.0000	EA	1,852.44	222.29	185.24	463.11	245.08	2,968.17
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,764.52</b>	<b>0.00</b>	<b>0.00</b>	<b>941.13</b>	<b>1,384.40</b>	<b>6,090.05</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,254.84</b>	<b>0.00</b>	<b>0.00</b>	<b>313.71</b>	<b>461.47</b>	<b>2,030.01</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.4170</b>	<b>ACR</b>	<b>1,254.84</b>	<b>0.00</b>	<b>0.00</b>	<b>313.71</b>	<b>461.47</b>	<b>2,030.01</b>
VEG REMOVAL ABOVE GROUND	0.4170	ACR	240.56	0.00	0.00	60.14	88.46	389.16
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.8340	ACR	1,014.28	0.00	0.00	253.57	373.00	1,640.85
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,509.68</b>	<b>0.00</b>	<b>0.00</b>	<b>627.42</b>	<b>922.93</b>	<b>4,060.03</b>
Total O&M for the First Year Dollars	2.0000	EA	2,509.68	0.00	0.00	627.42	922.93	4,060.03
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>60.6500</b>	<b>ACR</b>	<b>1,721,256.18</b>	<b>197,038.41</b>	<b>164,198.68</b>	<b>430,314.04</b>	<b>246,386.18</b>	<b>2,759,193.49</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>60.6500</b>	<b>ACR</b>	<b>356,822.20</b>	<b>42,818.66</b>	<b>35,682.22</b>	<b>89,205.55</b>	<b>47,207.58</b>	<b>571,736.21</b>
VEG REMOVAL ABOVE GROUND	60.6500	ACR	68,443.10	8,213.17	6,844.31	17,110.78	9,055.02	109,666.38
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	121.3000	ACR	288,379.10	34,605.49	28,837.91	72,094.77	38,152.55	462,069.82

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>60.6500</b>	<b>ACR</b>	<b>1,285,164.56</b>	<b>154,219.75</b>	<b>128,516.46</b>	<b>321,291.14</b>	<b>170,027.27</b>	<b>2,059,219.18</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>582,333.53</b>	<b>69,880.02</b>	<b>58,233.35</b>	<b>145,583.38</b>	<b>77,042.73</b>	<b>933,073.01</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,819.5000	EA	227,394.44	27,287.33	22,739.44	56,848.61	30,084.28	364,354.10
Delivery - Cottonwood Trees	1,819.5000	EA	12,629.35	1,515.52	1,262.93	3,157.34	1,670.86	20,236.00
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
Gooding's Willows	3,335.7500	EA	319,155.94	38,298.71	31,915.59	79,788.99	42,224.33	511,383.57
Delivery - Gooding's Willow Trees	3,335.7500	EA	23,153.80	2,778.46	2,315.38	5,788.45	3,063.25	37,099.34
<small>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</small>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>386,664.69</b>	<b>46,399.76</b>	<b>38,666.47</b>	<b>96,666.17</b>	<b>51,155.74</b>	<b>619,552.84</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	7,278.0000	EA	341,760.35	41,011.24	34,176.03	85,440.09	45,214.89	547,602.61
Delivery - Shrubs	7,278.0000	EA	44,904.35	5,388.52	4,490.43	11,226.09	5,940.84	71,950.23
<small>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</small>								
<b>Seeding</b>	<b>12.1300</b>	<b>ACR</b>	<b>55,825.02</b>	<b>6,699.00</b>	<b>5,582.50</b>	<b>13,956.26</b>	<b>7,385.65</b>	<b>89,448.43</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	12.1300	ACR	55,825.02	6,699.00	5,582.50	13,956.26	7,385.65	89,448.43
<b>Watering</b>	<b>60.6500</b>	<b>ACR</b>	<b>260,341.32</b>	<b>31,240.96</b>	<b>26,034.13</b>	<b>65,085.33</b>	<b>34,443.16</b>	<b>417,144.90</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	303.2500	ACR	147,266.63	17,672.00	14,726.66	36,816.66	19,483.38	235,965.32
<small>(Note: Water 5 times in the contract life.)</small>								
Travel Time	606.5000	EA	113,074.69	13,568.96	11,307.47	28,268.67	14,959.78	181,179.58
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>79,269.42</b>	<b>0.00</b>	<b>0.00</b>	<b>19,817.35</b>	<b>29,151.33</b>	<b>128,238.10</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>26,423.14</b>	<b>0.00</b>	<b>0.00</b>	<b>6,605.78</b>	<b>9,717.11</b>	<b>42,746.03</b>
<b>Treat-Retreat-Reveg</b>	<b>3.0325</b>	<b>ACR</b>	<b>26,423.14</b>	<b>0.00</b>	<b>0.00</b>	<b>6,605.78</b>	<b>9,717.11</b>	<b>42,746.03</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>3.0325</b>	<b>ACR</b>	<b>9,125.40</b>	<b>0.00</b>	<b>0.00</b>	<b>2,281.35</b>	<b>3,355.87</b>	<b>14,762.62</b>
VEG REMOVAL ABOVE GROUND	3.0325	ACR	1,749.37	0.00	0.00	437.34	643.33	2,830.05
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	6.0650	ACR	7,376.03	0.00	0.00	1,844.01	2,712.53	11,932.57
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>52,846.28</b>	<b>0.00</b>	<b>0.00</b>	<b>13,211.57</b>	<b>19,434.22</b>	<b>85,492.07</b>

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Total O&M for the First Year Dollars (Note: This will happen once every three years for a total of three times in 10years.)	2.0000	EA	52,846.28	0.00	0.00	13,211.57	19,434.22	85,492.07
<b>Wetland (Water Feature)</b> (Note: Assume an average 5 ft depth from existing grade. )	<b>2.7800</b>	<b>ACR</b>	<b>465,740.17</b>	<b>55,382.23</b>	<b>46,151.86</b>	<b>116,435.04</b>	<b>62,611.41</b>	<b>746,320.71</b>
<b>Vegetation Removal</b> (Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)	<b>2,242.5333</b>	<b>LCY</b>	<b>42,630.02</b>	<b>5,115.60</b>	<b>4,263.00</b>	<b>10,657.51</b>	<b>5,639.95</b>	<b>68,306.09</b>
<b>Clearing</b>	<b>2,242.5333</b>	<b>LCY</b>	<b>10,079.76</b>	<b>1,209.57</b>	<b>1,007.98</b>	<b>2,519.94</b>	<b>1,333.55</b>	<b>16,150.81</b>
VEG REMOVAL ABOVE GROUND	2.7800	ACR	2,438.05	292.57	243.80	609.51	322.55	3,906.48
Clearing Large Site (Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)	2,242.5333	LCY	7,641.72	917.01	764.17	1,910.43	1,011.00	12,244.32
<b>Haul Waste</b> (Note: Haul to Waste: Avg Haul - 5 miles)	<b>2,578.9133</b>	<b>LCY</b>	<b>32,550.26</b>	<b>3,906.03</b>	<b>3,255.03</b>	<b>8,137.57</b>	<b>4,306.40</b>	<b>52,155.28</b>
Load, Haul and Dispose (Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)	2,578.9133	LCY	32,550.26	3,906.03	3,255.03	8,137.57	4,306.40	52,155.28
<b>Excavation, Random</b>	<b>22,425.3333</b>	<b>BCY</b>	<b>110,126.81</b>	<b>13,215.22</b>	<b>11,012.68</b>	<b>27,531.70</b>	<b>14,569.78</b>	<b>176,456.19</b>
Excavation, Random	22,425.3333	CY	110,126.81	13,215.22	11,012.68	27,531.70	14,569.78	176,456.19
<b>Rough Grading</b>	<b>13,455.2000</b>	<b>SY</b>	<b>6,663.23</b>	<b>799.59</b>	<b>666.32</b>	<b>1,665.81</b>	<b>881.55</b>	<b>10,676.50</b>
Rough Grading	13,455.2000	SY	6,663.23	799.59	666.32	1,665.81	881.55	10,676.50
<b>Compaction</b>	<b>4,485.0667</b>	<b>ECY</b>	<b>6,668.60</b>	<b>800.23</b>	<b>666.86</b>	<b>1,667.15</b>	<b>882.26</b>	<b>10,685.09</b>
Compaction	4,485.0667	ECY	6,668.60	800.23	666.86	1,667.15	882.26	10,685.09
<b>Load/Handle Waste Material</b>	<b>25,789.1333</b>	<b>LCY</b>	<b>35,907.60</b>	<b>4,308.91</b>	<b>3,590.76</b>	<b>8,976.90</b>	<b>4,750.58</b>	<b>57,534.75</b>
Load Waste Material (Note: 138 lcy per hour to match the excavation rate)	25,789.1333	LCY	35,907.60	4,308.91	3,590.76	8,976.90	4,750.58	57,534.75
<b>Haul Waste Material</b> (Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)	<b>25,789.1333</b>	<b>LCY</b>	<b>106,130.61</b>	<b>12,735.67</b>	<b>10,613.06</b>	<b>26,532.65</b>	<b>14,041.08</b>	<b>170,053.07</b>
Haul Waste Material (Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)	25,789.1333	LCY	106,130.61	12,735.67	10,613.06	26,532.65	14,041.08	170,053.07

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Revegetation</b>	<b>2.7800</b>	<b>ACR</b>	<b>153,391.68</b>	<b>18,407.00</b>	<b>15,339.17</b>	<b>38,347.92</b>	<b>20,293.72</b>	<b>245,779.49</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>153,391.68</b>	<b>18,407.00</b>	<b>15,339.17</b>	<b>38,347.92</b>	<b>20,293.72</b>	<b>245,779.49</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	40,365.6000	EA	127,775.04	15,333.00	12,777.50	31,943.76	16,904.64	204,733.94
Delivery - PLUGS	40,365.6000	EA	25,616.64	3,074.00	2,561.66	6,404.16	3,389.08	41,045.55
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>4,221.62</b>	<b>0.00</b>	<b>0.00</b>	<b>1,055.41</b>	<b>1,552.50</b>	<b>6,829.53</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>786.22</b>	<b>0.00</b>	<b>0.00</b>	<b>196.56</b>	<b>289.13</b>	<b>1,271.91</b>
<b>Treat-Retreat-Reveg</b>	<b>0.1390</b>	<b>ACR</b>	<b>786.22</b>	<b>0.00</b>	<b>0.00</b>	<b>196.56</b>	<b>289.13</b>	<b>1,271.91</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1390</b>	<b>ACR</b>	<b>418.28</b>	<b>0.00</b>	<b>0.00</b>	<b>104.57</b>	<b>153.82</b>	<b>676.67</b>
VEG REMOVAL ABOVE GROUND	0.1390	ACR	80.19	0.00	0.00	20.05	29.49	129.72
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.2780	ACR	338.09	0.00	0.00	84.52	124.33	546.95
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.0325</b>	<b>ACR</b>	<b>367.94</b>	<b>0.00</b>	<b>0.00</b>	<b>91.99</b>	<b>135.31</b>	<b>595.24</b>
<b>Tree Plantings</b>	<b>0.0325</b>	<b>ACR</b>	<b>172.57</b>	<b>0.00</b>	<b>0.00</b>	<b>43.14</b>	<b>63.46</b>	<b>279.18</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1.0000	EA	63.97	0.00	0.00	15.99	23.53	103.49
Delivery - Cottonwood Trees	1.0000	EA	3.55	0.00	0.00	0.89	1.31	5.74
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	2.0000	EA	97.95	0.00	0.00	24.49	36.02	158.46
Delivery - Gooding's Willow Trees	2.0000	EA	7.10	0.00	0.00	1.78	2.61	11.49
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>108.75</b>	<b>0.00</b>	<b>0.00</b>	<b>27.19</b>	<b>39.99</b>	<b>175.94</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Shrubs	4.0000	EA	96.13	0.00	0.00	24.03	35.35	155.52
Delivery - Shrubs	4.0000	EA	12.62	0.00	0.00	3.16	4.64	20.42
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0065</b>	<b>ACR</b>	<b>15.30</b>	<b>0.00</b>	<b>0.00</b>	<b>3.83</b>	<b>5.63</b>	<b>24.76</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0065	ACR	15.30	0.00	0.00	3.83	5.63	24.76
<b>Watering</b>	<b>0.0325</b>	<b>ACR</b>	<b>71.31</b>	<b>0.00</b>	<b>0.00</b>	<b>17.83</b>	<b>26.22</b>	<b>115.36</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	0.1625	ACR	40.34	0.00	0.00	10.08	14.83	65.26
(Note: Water 5 times in the contract life.)								
Travel Time	0.3250	EA	30.97	0.00	0.00	7.74	11.39	50.10
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,435.40</b>	<b>0.00</b>	<b>0.00</b>	<b>858.85</b>	<b>1,263.37</b>	<b>5,557.62</b>
Total O&M for the First Year Dollars	2.0000	EA	3,435.40	0.00	0.00	858.85	1,263.37	5,557.62
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>56,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>14,000.00</b>	<b>20,594.00</b>	<b>90,594.00</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	56,000.00	0.00	0.00	14,000.00	20,594.00	90,594.00
(Note: This cost was provided by the environmental section. The cost totaled \$5,600.00 per year for a total of 10 years =)								
<b>Project ID #21</b>	<b>1.0000</b>	<b>LS</b>	<b>1,453,130.48</b>	<b>160,738.59</b>	<b>133,948.83</b>	<b>363,282.62</b>	<b>219,006.22</b>	<b>2,330,106.73</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>1,453,130.48</b>	<b>160,738.59</b>	<b>133,948.83</b>	<b>363,282.62</b>	<b>219,006.22</b>	<b>2,330,106.73</b>
<b>Swale</b>	<b>1.0500</b>	<b>ACR</b>	<b>169,445.10</b>	<b>20,276.54</b>	<b>16,897.12</b>	<b>42,361.28</b>	<b>22,529.18</b>	<b>271,509.21</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>847.0000</b>	<b>LCY</b>	<b>16,101.27</b>	<b>1,932.15</b>	<b>1,610.13</b>	<b>4,025.32</b>	<b>2,130.20</b>	<b>25,799.06</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>847.0000</b>	<b>LCY</b>	<b>3,807.10</b>	<b>456.85</b>	<b>380.71</b>	<b>951.78</b>	<b>503.68</b>	<b>6,100.12</b>
VEG REMOVAL ABOVE GROUND	1.0500	ACR	920.85	110.50	92.08	230.21	121.83	1,475.47
Clearing Large Site	847.0000	LCY	2,886.26	346.35	288.63	721.56	381.85	4,624.65
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Haul Waste</b>	<b>974.0500</b>	<b>LCY</b>	<b>12,294.16</b>	<b>1,475.30</b>	<b>1,229.42</b>	<b>3,073.54</b>	<b>1,626.52</b>	<b>19,698.94</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	974.0500	LCY	12,294.16	1,475.30	1,229.42	3,073.54	1,626.52	19,698.94
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>5,082.0000</b>	<b>BCY</b>	<b>24,956.80</b>	<b>2,994.82</b>	<b>2,495.68</b>	<b>6,239.20</b>	<b>3,301.78</b>	<b>39,988.27</b>
Excavation, Random	5,082.0000	CY	24,956.80	2,994.82	2,495.68	6,239.20	3,301.78	39,988.27
<b>Rough Grading</b>	<b>5,082.0000</b>	<b>SY</b>	<b>2,516.69</b>	<b>302.00</b>	<b>251.67</b>	<b>629.17</b>	<b>332.96</b>	<b>4,032.49</b>
Rough Grading	5,082.0000	SY	2,516.69	302.00	251.67	629.17	332.96	4,032.49
<b>Compaction</b>	<b>1,694.0000</b>	<b>ECY</b>	<b>2,518.71</b>	<b>302.25</b>	<b>251.87</b>	<b>629.68</b>	<b>333.23</b>	<b>4,035.74</b>
Compaction	1,694.0000	ECY	2,518.71	302.25	251.87	629.68	333.23	4,035.74
<b>Load/Handle Waste Material</b>	<b>5,844.3000</b>	<b>LCY</b>	<b>8,137.33</b>	<b>976.48</b>	<b>813.73</b>	<b>2,034.33</b>	<b>1,076.57</b>	<b>13,038.45</b>
Load Waste Material	5,844.3000	LCY	8,137.33	976.48	813.73	2,034.33	1,076.57	13,038.45
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>5,844.3000</b>	<b>LCY</b>	<b>24,051.18</b>	<b>2,886.14</b>	<b>2,405.12</b>	<b>6,012.80</b>	<b>3,181.97</b>	<b>38,537.21</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	5,844.3000	LCY	24,051.18	2,886.14	2,405.12	6,012.80	3,181.97	38,537.21
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>1.0500</b>	<b>ACR</b>	<b>90,689.18</b>	<b>10,882.70</b>	<b>9,068.92</b>	<b>22,672.29</b>	<b>11,998.18</b>	<b>145,311.27</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>85,834.03</b>	<b>10,300.08</b>	<b>8,583.40</b>	<b>21,458.51</b>	<b>11,355.84</b>	<b>137,531.86</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	28.3500	EA	3,543.08	425.17	354.31	885.77	468.75	5,677.08
Delivery - Cottonwood Trees	28.3500	EA	196.78	23.61	19.68	49.20	26.03	315.30
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	5,082.0000	EA	67,209.29	8,065.12	6,720.93	16,802.32	8,891.79	107,689.45
Delivery - Coyote Willows	5,082.0000	EA	8,958.66	1,075.04	895.87	2,239.66	1,185.23	14,354.46
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Gooding's Willows	57.7500	EA	5,525.37	663.04	552.54	1,381.34	731.01	8,853.30
Delivery - Gooding's Willow Trees	57.7500	EA	400.85	48.10	40.08	100.21	53.03	642.28
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>3,458.62</b>	<b>415.03</b>	<b>345.86</b>	<b>864.66</b>	<b>457.58</b>	<b>5,541.75</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	65.1000	EA	3,056.97	366.84	305.70	764.24	404.44	4,898.18
Delivery - Shrubs	65.1000	EA	401.66	48.20	40.17	100.41	53.14	643.58
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>1,396.52</b>	<b>167.58</b>	<b>139.65</b>	<b>349.13</b>	<b>184.76</b>	<b>2,237.65</b>
PLUGS	367.5000	EA	1,163.30	139.60	116.33	290.83	153.90	1,863.96
Delivery - PLUGS	367.5000	EA	233.22	27.99	23.32	58.31	30.86	373.69
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>473.94</b>	<b>0.00</b>	<b>0.00</b>	<b>118.49</b>	<b>174.29</b>	<b>766.72</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>157.98</b>	<b>0.00</b>	<b>0.00</b>	<b>39.50</b>	<b>58.10</b>	<b>255.58</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.0525</b>	<b>ACR</b>	<b>157.98</b>	<b>0.00</b>	<b>0.00</b>	<b>39.50</b>	<b>58.10</b>	<b>255.58</b>
VEG REMOVAL ABOVE GROUND	0.0525	ACR	30.29	0.00	0.00	7.57	11.14	49.00
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.1050	ACR	127.70	0.00	0.00	31.92	46.96	206.58
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>315.96</b>	<b>0.00</b>	<b>0.00</b>	<b>78.99</b>	<b>116.19</b>	<b>511.14</b>
Total O&M for the First Year Dollars	2.0000	EA	315.96	0.00	0.00	78.99	116.19	511.14
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>34.0700</b>	<b>ACR</b>	<b>989,654.07</b>	<b>110,685.88</b>	<b>92,238.23</b>	<b>247,413.52</b>	<b>146,770.36</b>	<b>1,586,762.06</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>34.0700</b>	<b>ACR</b>	<b>200,444.06</b>	<b>24,053.29</b>	<b>20,044.41</b>	<b>50,111.02</b>	<b>26,518.75</b>	<b>321,171.52</b>
VEG REMOVAL ABOVE GROUND	34.0700	ACR	38,447.76	4,613.73	3,844.78	9,611.94	5,086.64	61,604.84
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Exotic Species Removal Herbicide Treatment	68.1400	ACR	161,996.30	19,439.56	16,199.63	40,499.08	21,432.11	259,566.68
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>34.0700</b>	<b>ACR</b>	<b>721,938.28</b>	<b>86,632.59</b>	<b>72,193.83</b>	<b>180,484.57</b>	<b>95,512.43</b>	<b>1,156,761.71</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>327,124.54</b>	<b>39,254.94</b>	<b>32,712.45</b>	<b>81,781.13</b>	<b>43,278.58</b>	<b>524,151.65</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	1,022.1000	EA	127,738.31	15,328.60	12,773.83	31,934.58	16,899.78	204,675.09
Delivery - Cottonwood Trees	1,022.1000	EA	7,094.51	851.34	709.45	1,773.63	938.60	11,367.53
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	1,873.8500	EA	179,285.13	21,514.22	17,928.51	44,821.28	23,719.42	287,268.56
Delivery - Gooding's Willow Trees	1,873.8500	EA	13,006.60	1,560.79	1,300.66	3,251.65	1,720.77	20,840.47
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>217,208.02</b>	<b>26,064.96</b>	<b>21,720.80</b>	<b>54,302.00</b>	<b>28,736.62</b>	<b>348,032.40</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	4,088.4000	EA	191,983.10	23,037.97	19,198.31	47,995.78	25,399.36	307,614.52
Delivery - Shrubs	4,088.4000	EA	25,224.91	3,026.99	2,522.49	6,306.23	3,337.26	40,417.88
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>6.8140</b>	<b>ACR</b>	<b>31,359.58</b>	<b>3,763.15</b>	<b>3,135.96</b>	<b>7,839.89</b>	<b>4,148.87</b>	<b>50,247.45</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	6.8140	ACR	31,359.58	3,763.15	3,135.96	7,839.89	4,148.87	50,247.45
<b>Watering</b>	<b>34.0700</b>	<b>ACR</b>	<b>146,246.15</b>	<b>17,549.54</b>	<b>14,624.61</b>	<b>36,561.54</b>	<b>19,348.37</b>	<b>234,330.20</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	170.3500	ACR	82,726.69	9,927.20	8,272.67	20,681.67	10,944.74	132,552.98
(Note: Water 5 times in the contract life.)								
Travel Time	340.7000	EA	63,519.45	7,622.33	6,351.95	15,879.86	8,403.62	101,777.22
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>67,271.73</b>	<b>0.00</b>	<b>0.00</b>	<b>16,817.93</b>	<b>24,739.18</b>	<b>108,828.84</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>22,423.91</b>	<b>0.00</b>	<b>0.00</b>	<b>5,605.98</b>	<b>8,246.39</b>	<b>36,276.28</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Treat-Retreat-Reveg</b>	<b>1.7035</b>	<b>ACR</b>	<b>22,423.91</b>	<b>0.00</b>	<b>0.00</b>	<b>5,605.98</b>	<b>8,246.39</b>	<b>36,276.28</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.7035</b>	<b>ACR</b>	<b>5,126.17</b>	<b>0.00</b>	<b>0.00</b>	<b>1,281.54</b>	<b>1,885.15</b>	<b>8,292.87</b>
VEG REMOVAL ABOVE GROUND	1.7035	ACR	982.71	0.00	0.00	245.68	361.39	1,589.77
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.4070	ACR	4,143.47	0.00	0.00	1,035.87	1,523.76	6,703.09
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>44,847.82</b>	<b>0.00</b>	<b>0.00</b>	<b>11,211.96</b>	<b>16,492.79</b>	<b>72,552.56</b>
Total O&M for the First Year Dollars	2.0000	EA	44,847.82	0.00	0.00	11,211.96	16,492.79	72,552.56
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>1.6800</b>	<b>ACR</b>	<b>265,031.31</b>	<b>29,776.17</b>	<b>24,813.48</b>	<b>66,257.83</b>	<b>39,041.93</b>	<b>424,920.71</b>
<b>High Flow Channel</b>	<b>2,814.6462</b>	<b>LF</b>	<b>265,031.31</b>	<b>29,776.17</b>	<b>24,813.48</b>	<b>66,257.83</b>	<b>39,041.93</b>	<b>424,920.71</b>
(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)								
<b>Vegetation Removal</b>	<b>1,355.2000</b>	<b>LCY</b>	<b>25,761.35</b>	<b>3,091.36</b>	<b>2,576.13</b>	<b>6,440.34</b>	<b>3,408.23</b>	<b>41,277.41</b>
<b>Clearing</b>	<b>1,355.2000</b>	<b>LCY</b>	<b>6,090.69</b>	<b>730.88</b>	<b>609.07</b>	<b>1,522.67</b>	<b>805.80</b>	<b>9,759.11</b>
(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)								
Clearing Large Site	1,355.0000	LCY	4,617.33	554.08	461.73	1,154.33	610.87	7,398.35
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	1.6800	ACR	1,473.35	176.80	147.34	368.34	194.92	2,360.75
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>1,558.4800</b>	<b>LCY</b>	<b>19,670.66</b>	<b>2,360.48</b>	<b>1,967.07</b>	<b>4,917.67</b>	<b>2,602.43</b>	<b>31,518.30</b>
(Note: Haul to Waste:)								
Load, Haul and Dispose	1,558.4800	LCY	19,670.66	2,360.48	1,967.07	4,917.67	2,602.43	31,518.30
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>7,505.7231</b>	<b>BCY</b>	<b>34,202.35</b>	<b>4,104.28</b>	<b>3,420.24</b>	<b>8,550.59</b>	<b>4,524.97</b>	<b>54,802.43</b>
Channel Excavation	7,505.7231	BCY	34,202.35	4,104.28	3,420.24	8,550.59	4,524.97	54,802.43
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>8,756.6769</b>	<b>SY</b>	<b>10,007.19</b>	<b>1,200.86</b>	<b>1,000.72</b>	<b>2,501.80</b>	<b>1,323.95</b>	<b>16,034.52</b>
Rough Grading	8,756.6769	SY	10,007.19	1,200.86	1,000.72	2,501.80	1,323.95	16,034.52
<b>Compaction</b>	<b>2,918.8923</b>	<b>ECY</b>	<b>8,635.76</b>	<b>1,036.29</b>	<b>863.58</b>	<b>2,158.94</b>	<b>1,142.51</b>	<b>13,837.08</b>
Compaction	2,919.0000	ECY	8,635.76	1,036.29	863.58	2,158.94	1,142.51	13,837.08
<b>Load/Handle Waste Material</b>	<b>8,631.5815</b>	<b>LCY</b>	<b>12,018.22</b>	<b>1,442.19</b>	<b>1,201.82</b>	<b>3,004.55</b>	<b>1,590.01</b>	<b>19,256.79</b>
Load Waste Material	8,631.5815	LCY	12,018.22	1,442.19	1,201.82	3,004.55	1,590.01	19,256.79
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>8,631.5815</b>	<b>LCY</b>	<b>35,521.74</b>	<b>4,262.61</b>	<b>3,552.17</b>	<b>8,880.44</b>	<b>4,699.53</b>	<b>56,916.49</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Haul Waste Material	8,631.5815	LCY	35,521.74	4,262.61	3,552.17	8,880.44	4,699.53	56,916.49
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>2,814.6462</b>	<b>LF</b>	<b>121,988.18</b>	<b>14,638.58</b>	<b>12,198.82</b>	<b>30,497.04</b>	<b>16,139.04</b>	<b>195,461.66</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>94,245.02</b>	<b>11,309.40</b>	<b>9,424.50</b>	<b>23,561.25</b>	<b>12,468.62</b>	<b>151,008.79</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	113.0000	EA	14,122.33	1,694.68	1,412.23	3,530.58	1,868.38	22,628.20
Delivery - Cottonwood Trees	113.0000	EA	784.35	94.12	78.43	196.09	103.77	1,256.76
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	3,753.0000	EA	49,633.31	5,956.00	4,963.33	12,408.33	6,566.49	79,527.45
Delivery - Coyote Willows	3,753.0000	EA	6,615.87	793.90	661.59	1,653.97	875.28	10,600.61
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	225.0000	EA	21,527.42	2,583.29	2,152.74	5,381.85	2,848.08	34,493.38
Delivery - Gooding's Willow Trees	225.0000	EA	1,561.75	187.41	156.17	390.44	206.62	2,502.39
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>10,565.55</b>	<b>1,267.87</b>	<b>1,056.56</b>	<b>2,641.39</b>	<b>1,397.82</b>	<b>16,929.18</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	225.0000	EA	10,565.55	1,267.87	1,056.56	2,641.39	1,397.82	16,929.18
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>1.6800</b>	<b>ACR</b>	<b>7,731.74</b>	<b>927.81</b>	<b>773.17</b>	<b>1,932.94</b>	<b>1,022.91</b>	<b>12,388.57</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	1.6800	ACR	7,731.74	927.81	773.17	1,932.94	1,022.91	12,388.57
<b>Watering</b>	<b>1.6800</b>	<b>ACR</b>	<b>7,211.43</b>	<b>865.37</b>	<b>721.14</b>	<b>1,802.86</b>	<b>954.07</b>	<b>11,554.88</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	8.4000	ACR	4,079.27	489.51	407.93	1,019.82	539.69	6,536.22

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Travel Time	16.8000	EA	3,132.16	375.86	313.22	783.04	414.38	5,018.66
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>2,234.43</b>	<b>268.13</b>	<b>223.44</b>	<b>558.61</b>	<b>295.62</b>	<b>3,580.24</b>
PLUGS	588.0000	EA	1,861.28	223.35	186.13	465.32	246.25	2,982.33
Delivery - PLUGS	588.0000	EA	373.15	44.78	37.32	93.29	49.37	597.90
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>16,896.52</b>	<b>0.00</b>	<b>0.00</b>	<b>4,224.13</b>	<b>6,213.70</b>	<b>27,334.35</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,448.26</b>	<b>0.00</b>	<b>0.00</b>	<b>2,112.07</b>	<b>3,106.85</b>	<b>13,667.18</b>
(Note: Per H&H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)								
<b>Channel Excavation</b>	<b>2,086.0000</b>	<b>BCY</b>	<b>6,251.40</b>	<b>0.00</b>	<b>0.00</b>	<b>1,562.85</b>	<b>2,298.95</b>	<b>10,113.21</b>
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 2,815' * 10'(wide) * 2' (deep)/27 = 2,085.18 BCY.)								
Channel Excavation	2,086.0000	BCY	6,251.40	0.00	0.00	1,562.85	2,298.95	10,113.21
<b>Load/Handle Waste Material</b>	<b>2,398.9000</b>	<b>LCY</b>	<b>2,196.86</b>	<b>0.00</b>	<b>0.00</b>	<b>549.22</b>	<b>807.90</b>	<b>3,553.97</b>
Load Waste Material	2,398.9000	LCY	2,196.86	0.00	0.00	549.22	807.90	3,553.97
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>8,448.26</b>	<b>0.00</b>	<b>0.00</b>	<b>2,112.07</b>	<b>3,106.85</b>	<b>13,667.17</b>
Total O&M for the First Year Dollars	1.0000	EA	8,448.26	0.00	0.00	2,112.07	3,106.85	13,667.17
(Note: This will happen once every five years for a total of two times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>29,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>7,250.00</b>	<b>10,664.75</b>	<b>46,914.75</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
Annual Site Assessment Cost	10.0000	YR	29,000.00	0.00	0.00	7,250.00	10,664.75	46,914.75
(Note: This cost was provided by the environmental section. The cost totaled \$2,900.00 per year for a total of 10 years =)								
<b>Project ID #22</b>	<b>1.0000</b>	<b>LS</b>	<b>1,728,275.33</b>	<b>197,051.47</b>	<b>164,209.56</b>	<b>432,068.83</b>	<b>248,941.85</b>	<b>2,770,547.05</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>1,728,275.33</b>	<b>197,051.47</b>	<b>164,209.56</b>	<b>432,068.83</b>	<b>248,941.85</b>	<b>2,770,547.05</b>
<b>Swale</b>	<b>6.7200</b>	<b>ACR</b>	<b>1,084,448.68</b>	<b>129,769.85</b>	<b>108,141.54</b>	<b>271,112.17</b>	<b>144,186.74</b>	<b>1,737,658.98</b>
(Note: Assume an average 3 ft depth from existing grade. )								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal</b>	<b>5,420.8000</b>	<b>LCY</b>	<b>103,048.12</b>	<b>12,365.77</b>	<b>10,304.81</b>	<b>25,762.03</b>	<b>13,633.27</b>	<b>165,114.00</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>5,420.8000</b>	<b>LCY</b>	<b>24,365.47</b>	<b>2,923.86</b>	<b>2,436.55</b>	<b>6,091.37</b>	<b>3,223.55</b>	<b>39,040.80</b>
VEG REMOVAL ABOVE GROUND	6.7200	ACR	5,893.41	707.21	589.34	1,473.35	779.70	9,443.01
Clearing Large Site	5,420.8000	LCY	18,472.06	2,216.65	1,847.21	4,618.02	2,443.85	29,597.78
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>6,233.9200</b>	<b>LCY</b>	<b>78,682.65</b>	<b>9,441.92</b>	<b>7,868.26</b>	<b>19,670.66</b>	<b>10,409.71</b>	<b>126,073.20</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	6,233.9200	LCY	78,682.65	9,441.92	7,868.26	19,670.66	10,409.71	126,073.20
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>32,524.8000</b>	<b>BCY</b>	<b>159,723.49</b>	<b>19,166.82</b>	<b>15,972.35</b>	<b>39,930.87</b>	<b>21,131.42</b>	<b>255,924.96</b>
Excavation, Random	32,524.8000	CY	159,723.49	19,166.82	15,972.35	39,930.87	21,131.42	255,924.96
<b>Rough Grading</b>	<b>32,524.8000</b>	<b>SY</b>	<b>16,106.81</b>	<b>1,932.82</b>	<b>1,610.68</b>	<b>4,026.70</b>	<b>2,130.93</b>	<b>25,807.93</b>
Rough Grading	32,524.8000	SY	16,106.81	1,932.82	1,610.68	4,026.70	2,130.93	25,807.93
<b>Compaction</b>	<b>10,841.6000</b>	<b>ECY</b>	<b>16,119.77</b>	<b>1,934.37</b>	<b>1,611.98</b>	<b>4,029.94</b>	<b>2,132.65</b>	<b>25,828.71</b>
Compaction	10,841.6000	ECY	16,119.77	1,934.37	1,611.98	4,029.94	2,132.65	25,828.71
<b>Load/Handle Waste Material</b>	<b>37,403.5200</b>	<b>LCY</b>	<b>52,078.93</b>	<b>6,249.47</b>	<b>5,207.89</b>	<b>13,019.73</b>	<b>6,890.04</b>	<b>83,446.08</b>
Load Waste Material	37,403.5200	LCY	52,078.93	6,249.47	5,207.89	13,019.73	6,890.04	83,446.08
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>37,403.5200</b>	<b>LCY</b>	<b>153,927.56</b>	<b>18,471.31</b>	<b>15,392.76</b>	<b>38,481.89</b>	<b>20,364.62</b>	<b>246,638.13</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	37,403.5200	LCY	153,927.56	18,471.31	15,392.76	38,481.89	20,364.62	246,638.13
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>6.7200</b>	<b>ACR</b>	<b>580,410.72</b>	<b>69,649.29</b>	<b>58,041.07</b>	<b>145,102.68</b>	<b>76,788.34</b>	<b>929,992.10</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>549,337.78</b>	<b>65,920.53</b>	<b>54,933.78</b>	<b>137,334.45</b>	<b>72,677.39</b>	<b>880,203.93</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								



Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Cottonwood Trees	181.4400	EA	22,675.71	2,721.08	2,267.57	5,668.93	3,000.00	36,333.28
Delivery - Cottonwood Trees	181.4400	EA	1,259.39	151.13	125.94	314.85	166.62	2,017.93
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	32,524.8000	EA	430,139.47	51,616.74	43,013.95	107,534.87	56,907.45	689,212.47
Delivery - Coyote Willows	32,524.8000	EA	57,335.41	6,880.25	5,733.54	14,333.85	7,585.47	91,868.53
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	369.6000	EA	35,362.37	4,243.48	3,536.24	8,840.59	4,678.44	56,661.13
Delivery - Gooding's Willow Trees	369.6000	EA	2,565.43	307.85	256.54	641.36	339.41	4,110.59
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>22,135.20</b>	<b>2,656.22</b>	<b>2,213.52</b>	<b>5,533.80</b>	<b>2,928.49</b>	<b>35,467.23</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	416.6400	EA	19,564.58	2,347.75	1,956.46	4,891.15	2,588.39	31,348.33
Delivery - Shrubs	416.6400	EA	2,570.62	308.47	257.06	642.65	340.09	4,118.90
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>8,937.74</b>	<b>1,072.53</b>	<b>893.77</b>	<b>2,234.43</b>	<b>1,182.46</b>	<b>14,320.94</b>
PLUGS	2,352.0000	EA	7,445.12	893.41	744.51	1,861.28	984.99	11,929.32
Delivery - PLUGS	2,352.0000	EA	1,492.62	179.11	149.26	373.15	197.47	2,391.62
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>3,033.27</b>	<b>0.00</b>	<b>0.00</b>	<b>758.32</b>	<b>1,115.49</b>	<b>4,907.08</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,011.09</b>	<b>0.00</b>	<b>0.00</b>	<b>252.77</b>	<b>371.83</b>	<b>1,635.69</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.3360</b>	<b>ACR</b>	<b>1,011.09</b>	<b>0.00</b>	<b>0.00</b>	<b>252.77</b>	<b>371.83</b>	<b>1,635.69</b>
VEG REMOVAL ABOVE GROUND	0.3360	ACR	193.83	0.00	0.00	48.46	71.28	313.57
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.6720	ACR	817.26	0.00	0.00	204.32	300.55	1,322.12

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,022.18</b>	<b>0.00</b>	<b>0.00</b>	<b>505.55</b>	<b>743.66</b>	<b>3,271.38</b>
Total O&M for the First Year Dollars	2.0000	EA	2,022.18	0.00	0.00	505.55	743.66	3,271.38
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>20.5000</b>	<b>ACR</b>	<b>616,146.13</b>	<b>66,599.96</b>	<b>55,499.96</b>	<b>154,036.53</b>	<b>95,913.07</b>	<b>988,195.66</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>20.5000</b>	<b>ACR</b>	<b>120,607.67</b>	<b>14,472.92</b>	<b>12,060.77</b>	<b>30,151.92</b>	<b>15,956.39</b>	<b>193,249.67</b>
VEG REMOVAL ABOVE GROUND	20.5000	ACR	23,134.11	2,776.09	2,313.41	5,783.53	3,060.64	37,067.78
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	41.0000	ACR	97,473.56	11,696.83	9,747.36	24,368.39	12,895.75	156,181.89
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>20.5000</b>	<b>ACR</b>	<b>434,391.98</b>	<b>52,127.04</b>	<b>43,439.20</b>	<b>108,597.99</b>	<b>57,470.06</b>	<b>696,026.27</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>196,831.61</b>	<b>23,619.79</b>	<b>19,683.16</b>	<b>49,207.90</b>	<b>26,040.82</b>	<b>315,383.29</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	615.0000	EA	76,860.44	9,223.25	7,686.04	19,215.11	10,168.64	123,153.49
Delivery - Cottonwood Trees	615.0000	EA	4,268.78	512.25	426.88	1,067.20	564.76	6,839.87
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	1,127.5000	EA	107,876.29	12,945.15	10,787.63	26,969.07	14,272.03	172,850.18
Delivery - Gooding's Willow Trees	1,127.5000	EA	7,826.10	939.13	782.61	1,956.53	1,035.39	12,539.76
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>130,694.58</b>	<b>15,683.35</b>	<b>13,069.46</b>	<b>32,673.64</b>	<b>17,290.89</b>	<b>209,411.92</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	2,460.0000	EA	115,516.69	13,862.00	11,551.67	28,879.17	15,282.86	185,092.39
Delivery - Shrubs	2,460.0000	EA	15,177.89	1,821.35	1,517.79	3,794.47	2,008.03	24,319.53
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>4.1000</b>	<b>ACR</b>	<b>18,869.13</b>	<b>2,264.30</b>	<b>1,886.91</b>	<b>4,717.28</b>	<b>2,496.39</b>	<b>30,234.01</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	4.1000	ACR	18,869.13	2,264.30	1,886.91	4,717.28	2,496.39	30,234.01
<b>Watering</b>	<b>20.5000</b>	<b>ACR</b>	<b>87,996.65</b>	<b>10,559.60</b>	<b>8,799.67</b>	<b>21,999.16</b>	<b>11,641.96</b>	<b>140,997.04</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	102.5000	ACR	49,776.85	5,973.22	4,977.68	12,444.21	6,585.48	79,757.45
(Note: Water 5 times in the contract life.)								
Travel Time	205.0000	EA	38,219.81	4,586.38	3,821.98	9,554.95	5,056.48	61,239.59
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>61,146.48</b>	<b>0.00</b>	<b>0.00</b>	<b>15,286.62</b>	<b>22,486.62</b>	<b>98,919.72</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,382.16</b>	<b>0.00</b>	<b>0.00</b>	<b>5,095.54</b>	<b>7,495.54</b>	<b>32,973.25</b>
<b>Treat-Retreat-Reveg</b>	<b>1.0250</b>	<b>ACR</b>	<b>20,382.16</b>	<b>0.00</b>	<b>0.00</b>	<b>5,095.54</b>	<b>7,495.54</b>	<b>32,973.25</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.0250</b>	<b>ACR</b>	<b>3,084.43</b>	<b>0.00</b>	<b>0.00</b>	<b>771.11</b>	<b>1,134.30</b>	<b>4,989.84</b>
VEG REMOVAL ABOVE GROUND	1.0250	ACR	591.30	0.00	0.00	147.82	217.45	956.57
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	2.0500	ACR	2,493.13	0.00	0.00	623.28	916.85	4,033.27
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>40,764.32</b>	<b>0.00</b>	<b>0.00</b>	<b>10,191.08</b>	<b>14,991.08</b>	<b>65,946.48</b>
Total O&M for the First Year Dollars	2.0000	EA	40,764.32	0.00	0.00	10,191.08	14,991.08	65,946.48
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Divert outfall flows - Grading Only</b>	<b>1.5800</b>	<b>ACR</b>	<b>5,680.53</b>	<b>681.66</b>	<b>568.05</b>	<b>1,420.13</b>	<b>751.53</b>	<b>9,101.91</b>
<b>Site Grading only</b>	<b>7,647.2000</b>	<b>SY</b>	<b>5,680.53</b>	<b>681.66</b>	<b>568.05</b>	<b>1,420.13</b>	<b>751.53</b>	<b>9,101.91</b>
Grading at Outfall - Divert Flows	7,647.2000	SY	5,680.53	681.66	568.05	1,420.13	751.53	9,101.91
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>22,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5,500.00</b>	<b>8,090.50</b>	<b>35,590.50</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	22,000.00	0.00	0.00	5,500.00	8,090.50	35,590.50
<b>(Note: This cost was provided by the environmental section. The cost totaled \$2,200.00 per year for a total of 10 years =)</b>								
<b>Project ID #23</b>	<b>1.0000</b>	<b>LS</b>	<b>2,428,342.60</b>	<b>274,444.37</b>	<b>228,703.64</b>	<b>607,085.65</b>	<b>354,540.26</b>	<b>3,893,116.53</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>2,428,342.60</b>	<b>274,444.37</b>	<b>228,703.64</b>	<b>607,085.65</b>	<b>354,540.26</b>	<b>3,893,116.53</b>
<b>Swale</b>	<b>5.1700</b>	<b>ACR</b>	<b>834,315.43</b>	<b>99,837.82</b>	<b>83,198.18</b>	<b>208,578.86</b>	<b>110,929.39</b>	<b>1,336,859.67</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>4,170.4667</b>	<b>LCY</b>	<b>79,279.58</b>	<b>9,513.55</b>	<b>7,927.96</b>	<b>19,819.89</b>	<b>10,488.69</b>	<b>127,029.67</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>4,170.4667</b>	<b>LCY</b>	<b>18,745.46</b>	<b>2,249.46</b>	<b>1,874.55</b>	<b>4,686.36</b>	<b>2,480.02</b>	<b>30,035.85</b>
VEG REMOVAL ABOVE GROUND	5.1700	ACR	4,534.07	544.09	453.41	1,133.52	599.86	7,264.94
Clearing Large Site	4,170.4667	LCY	14,211.39	1,705.37	1,421.14	3,552.85	1,880.17	22,770.91
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Haul Waste</b>	<b>4,796.0367</b>	<b>LCY</b>	<b>60,534.12</b>	<b>7,264.09</b>	<b>6,053.41</b>	<b>15,133.53</b>	<b>8,008.66</b>	<b>96,993.82</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	4,796.0367	LCY	60,534.12	7,264.09	6,053.41	15,133.53	8,008.66	96,993.82
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>25,022.8000</b>	<b>BCY</b>	<b>122,882.51</b>	<b>14,745.90</b>	<b>12,288.25</b>	<b>30,720.63</b>	<b>16,257.36</b>	<b>196,894.65</b>
Excavation, Random	25,022.8000	CY	122,882.51	14,745.90	12,288.25	30,720.63	16,257.36	196,894.65
<b>Rough Grading</b>	<b>25,022.8000</b>	<b>SY</b>	<b>12,391.69</b>	<b>1,487.00</b>	<b>1,239.17</b>	<b>3,097.92</b>	<b>1,639.42</b>	<b>19,855.21</b>
Rough Grading	25,022.8000	SY	12,391.69	1,487.00	1,239.17	3,097.92	1,639.42	19,855.21
<b>Compaction</b>	<b>8,340.9333</b>	<b>ECY</b>	<b>12,401.67</b>	<b>1,488.20</b>	<b>1,240.17</b>	<b>3,100.42</b>	<b>1,640.74</b>	<b>19,871.20</b>
Compaction	8,340.9333	ECY	12,401.67	1,488.20	1,240.17	3,100.42	1,640.74	19,871.20
<b>Load/Handle Waste Material</b>	<b>28,776.2200</b>	<b>LCY</b>	<b>40,066.68</b>	<b>4,808.00</b>	<b>4,006.67</b>	<b>10,016.67</b>	<b>5,300.82</b>	<b>64,198.84</b>
Load Waste Material	28,776.2200	LCY	40,066.68	4,808.00	4,006.67	10,016.67	5,300.82	64,198.84
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>28,776.2200</b>	<b>LCY</b>	<b>118,423.43</b>	<b>14,210.81</b>	<b>11,842.34</b>	<b>29,605.86</b>	<b>15,667.42</b>	<b>189,749.87</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	28,776.2200	LCY	118,423.43	14,210.81	11,842.34	29,605.86	15,667.42	189,749.87
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>5.1700</b>	<b>ACR</b>	<b>446,536.23</b>	<b>53,584.35</b>	<b>44,653.62</b>	<b>111,634.06</b>	<b>59,076.74</b>	<b>715,484.99</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>422,630.41</b>	<b>50,715.65</b>	<b>42,263.04</b>	<b>105,657.60</b>	<b>55,914.00</b>	<b>677,180.70</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	139.5900	EA	17,445.45	2,093.45	1,744.54	4,361.36	2,308.03	27,952.84
Delivery - Cottonwood Trees	139.5900	EA	968.91	116.27	96.89	242.23	128.19	1,552.48
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	25,022.8000	EA	330,925.75	39,711.09	33,092.58	82,731.44	43,781.48	530,242.33
Delivery - Coyote Willows	25,022.8000	EA	44,110.72	5,293.29	4,411.07	11,027.68	5,835.85	70,678.61
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Gooding's Willows	284.3500	EA	27,205.87	3,264.70	2,720.59	6,801.47	3,599.34	43,591.97
Delivery - Gooding's Willow Trees	284.3500	EA	1,973.70	236.84	197.37	493.43	261.12	3,162.47
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>17,029.61</b>	<b>2,043.55</b>	<b>1,702.96</b>	<b>4,257.40</b>	<b>2,253.02</b>	<b>27,286.54</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	320.5400	EA	15,051.92	1,806.23	1,505.19	3,762.98	1,991.37	24,117.69
Delivery - Shrubs	320.5400	EA	1,977.69	237.32	197.77	494.42	261.65	3,168.86
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>6,876.21</b>	<b>825.14</b>	<b>687.62</b>	<b>1,719.05</b>	<b>909.72</b>	<b>11,017.75</b>
PLUGS	1,809.5000	EA	5,727.87	687.34	572.79	1,431.97	757.80	9,177.77
Delivery - PLUGS	1,809.5000	EA	1,148.34	137.80	114.83	287.08	151.92	1,839.98
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>2,333.64</b>	<b>0.00</b>	<b>0.00</b>	<b>583.41</b>	<b>858.20</b>	<b>3,775.24</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>777.88</b>	<b>0.00</b>	<b>0.00</b>	<b>194.47</b>	<b>286.06</b>	<b>1,258.41</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.2585</b>	<b>ACR</b>	<b>777.88</b>	<b>0.00</b>	<b>0.00</b>	<b>194.47</b>	<b>286.06</b>	<b>1,258.41</b>
VEG REMOVAL ABOVE GROUND	0.2585	ACR	149.12	0.00	0.00	37.28	54.84	241.24
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.5170	ACR	628.76	0.00	0.00	157.19	231.23	1,017.17
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,555.76</b>	<b>0.00</b>	<b>0.00</b>	<b>388.94</b>	<b>572.13</b>	<b>2,516.83</b>
Total O&M for the First Year Dollars	2.0000	EA	1,555.76	0.00	0.00	388.94	572.13	2,516.83
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Treat-Retreat-Reveg</b>	<b>31.6000</b>	<b>ACR</b>	<b>921,668.46</b>	<b>102,661.40</b>	<b>85,551.17</b>	<b>230,417.12</b>	<b>137,513.36</b>	<b>1,477,811.50</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>31.6000</b>	<b>ACR</b>	<b>185,912.31</b>	<b>22,309.48</b>	<b>18,591.23</b>	<b>46,478.08</b>	<b>24,596.20</b>	<b>297,887.29</b>
VEG REMOVAL ABOVE GROUND	31.6000	ACR	35,660.38	4,279.25	3,566.04	8,915.09	4,717.87	57,138.63
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Exotic Species Removal Herbicide Treatment	63.2000	ACR	150,251.93	18,030.23	15,025.19	37,562.98	19,878.33	240,748.66
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>31.6000</b>	<b>ACR</b>	<b>669,599.34</b>	<b>80,351.92</b>	<b>66,959.93</b>	<b>167,399.84</b>	<b>88,587.99</b>	<b>1,072,899.03</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>303,408.73</b>	<b>36,409.05</b>	<b>30,340.87</b>	<b>75,852.18</b>	<b>40,140.98</b>	<b>486,151.81</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	948.0000	EA	118,477.56	14,217.31	11,847.76	29,619.39	15,674.58	189,836.60
Delivery - Cottonwood Trees	948.0000	EA	6,580.17	789.62	658.02	1,645.04	870.56	10,543.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	1,738.0000	EA	166,287.35	19,954.48	16,628.74	41,571.84	21,999.82	266,442.22
Delivery - Gooding's Willow Trees	1,738.0000	EA	12,063.65	1,447.64	1,206.36	3,015.91	1,596.02	19,329.58
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>201,460.91</b>	<b>24,175.31</b>	<b>20,146.09</b>	<b>50,365.23</b>	<b>26,653.28</b>	<b>322,800.82</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	3,792.0000	EA	178,064.75	21,367.77	17,806.47	44,516.19	23,557.97	285,313.15
Delivery - Shrubs	3,792.0000	EA	23,396.16	2,807.54	2,339.62	5,849.04	3,095.31	37,487.67
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>6.3200</b>	<b>ACR</b>	<b>29,086.08</b>	<b>3,490.33</b>	<b>2,908.61</b>	<b>7,271.52</b>	<b>3,848.09</b>	<b>46,604.62</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	6.3200	ACR	29,086.08	3,490.33	2,908.61	7,271.52	3,848.09	46,604.62
<b>Watering</b>	<b>31.6000</b>	<b>ACR</b>	<b>135,643.62</b>	<b>16,277.23</b>	<b>13,564.36</b>	<b>33,910.91</b>	<b>17,945.65</b>	<b>217,341.78</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	158.0000	ACR	76,729.19	9,207.50	7,672.92	19,182.30	10,151.27	122,943.18
(Note: Water 5 times in the contract life.)								
Travel Time	316.0000	EA	58,914.43	7,069.73	5,891.44	14,728.61	7,794.38	94,398.59
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>66,156.81</b>	<b>0.00</b>	<b>0.00</b>	<b>16,539.20</b>	<b>24,329.17</b>	<b>107,025.18</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>22,052.27</b>	<b>0.00</b>	<b>0.00</b>	<b>5,513.07</b>	<b>8,109.72</b>	<b>35,675.06</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Treat-Retreat-Reveg</b>	<b>1.5800</b>	<b>ACR</b>	<b>22,052.27</b>	<b>0.00</b>	<b>0.00</b>	<b>5,513.07</b>	<b>8,109.72</b>	<b>35,675.06</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.5800</b>	<b>ACR</b>	<b>4,754.54</b>	<b>0.00</b>	<b>0.00</b>	<b>1,188.63</b>	<b>1,748.48</b>	<b>7,691.65</b>
VEG REMOVAL ABOVE GROUND	1.5800	ACR	911.46	0.00	0.00	227.87	335.19	1,474.52
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	3.1600	ACR	3,843.08	0.00	0.00	960.77	1,413.29	6,217.13
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>44,104.54</b>	<b>0.00</b>	<b>0.00</b>	<b>11,026.14</b>	<b>16,219.44</b>	<b>71,350.12</b>
Total O&M for the First Year Dollars	2.0000	EA	44,104.54	0.00	0.00	11,026.14	16,219.44	71,350.12
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>4.0600</b>	<b>ACR</b>	<b>640,358.70</b>	<b>71,945.16</b>	<b>59,954.30</b>	<b>160,089.68</b>	<b>94,329.52</b>	<b>1,026,677.36</b>
<b>High Flow Channel</b>	<b>6,802.0615</b>	<b>LF</b>	<b>640,358.70</b>	<b>71,945.16</b>	<b>59,954.30</b>	<b>160,089.68</b>	<b>94,329.52</b>	<b>1,026,677.36</b>
(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)								
<b>Vegetation Removal</b>	<b>3,275.0667</b>	<b>LCY</b>	<b>62,258.01</b>	<b>7,470.96</b>	<b>6,225.80</b>	<b>15,564.50</b>	<b>8,236.73</b>	<b>99,756.01</b>
<b>Clearing</b>	<b>3,275.0667</b>	<b>LCY</b>	<b>14,720.58</b>	<b>1,766.47</b>	<b>1,472.06</b>	<b>3,680.14</b>	<b>1,947.53</b>	<b>23,586.78</b>
(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)								
Clearing Large Site	3,275.0000	LCY	11,159.98	1,339.20	1,116.00	2,789.99	1,476.46	17,881.63
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	4.0600	ACR	3,560.60	427.27	356.06	890.15	471.07	5,705.15
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>3,766.3267</b>	<b>LCY</b>	<b>47,537.43</b>	<b>5,704.49</b>	<b>4,753.74</b>	<b>11,884.36</b>	<b>6,289.20</b>	<b>76,169.23</b>
(Note: Haul to Waste:)								
Load, Haul and Dispose	3,766.3267	LCY	47,537.43	5,704.49	4,753.74	11,884.36	6,289.20	76,169.23
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>18,138.8308</b>	<b>BCY</b>	<b>82,655.68</b>	<b>9,918.68</b>	<b>8,265.57</b>	<b>20,663.92</b>	<b>10,935.35</b>	<b>132,439.20</b>
Channel Excavation	18,138.8308	BCY	82,655.68	9,918.68	8,265.57	20,663.92	10,935.35	132,439.20
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>21,161.9692</b>	<b>SY</b>	<b>24,184.03</b>	<b>2,902.08</b>	<b>2,418.40</b>	<b>6,046.01</b>	<b>3,199.55</b>	<b>38,750.08</b>
Rough Grading	21,161.9692	SY	24,184.03	2,902.08	2,418.40	6,046.01	3,199.55	38,750.08
<b>Compaction</b>	<b>7,053.9897</b>	<b>ECY</b>	<b>20,869.01</b>	<b>2,504.28</b>	<b>2,086.90</b>	<b>5,217.25</b>	<b>2,760.97</b>	<b>33,438.42</b>
Compaction	7,054.0000	ECY	20,869.01	2,504.28	2,086.90	5,217.25	2,760.97	33,438.42
<b>Load/Handle Waste Material</b>	<b>20,859.6554</b>	<b>LCY</b>	<b>29,044.02</b>	<b>3,485.28</b>	<b>2,904.40</b>	<b>7,261.01</b>	<b>3,842.52</b>	<b>46,537.24</b>
Load Waste Material	20,859.6554	LCY	29,044.02	3,485.28	2,904.40	7,261.01	3,842.52	46,537.24
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>20,859.6554</b>	<b>LCY</b>	<b>85,844.22</b>	<b>10,301.31</b>	<b>8,584.42</b>	<b>21,461.05</b>	<b>11,357.19</b>	<b>137,548.19</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Haul Waste Material	20,859.6554	LCY	85,844.22	10,301.31	8,584.42	21,461.05	11,357.19	137,548.19
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>6,802.0615</b>	<b>LF</b>	<b>294,688.00</b>	<b>35,362.56</b>	<b>29,468.80</b>	<b>73,672.00</b>	<b>38,987.22</b>	<b>472,178.59</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>227,630.29</b>	<b>27,315.63</b>	<b>22,763.03</b>	<b>56,907.57</b>	<b>30,115.49</b>	<b>364,732.01</b>
(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)								
Cottonwood Trees	272.0000	EA	33,993.56	4,079.23	3,399.36	8,498.39	4,497.35	54,467.88
Delivery - Cottonwood Trees	272.0000	EA	1,887.98	226.56	188.80	472.00	249.78	3,025.11
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	9,069.0000	EA	119,937.24	14,392.47	11,993.72	29,984.31	15,867.70	192,175.44
Delivery - Coyote Willows	9,069.0000	EA	15,987.03	1,918.44	1,598.70	3,996.76	2,115.08	25,616.01
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	544.0000	EA	52,048.51	6,245.82	5,204.85	13,012.13	6,886.02	83,397.34
Delivery - Gooding's Willow Trees	544.0000	EA	3,775.96	453.12	377.60	943.99	499.56	6,050.23
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>25,545.15</b>	<b>3,065.42</b>	<b>2,554.52</b>	<b>6,386.29</b>	<b>3,379.62</b>	<b>40,931.00</b>
(Note: Shrub installed on both sides of the channel every 25 ft.)								
Shrubs	544.0000	EA	25,545.15	3,065.42	2,554.52	6,386.29	3,379.62	40,931.00
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>4.0600</b>	<b>ACR</b>	<b>18,685.04</b>	<b>2,242.21</b>	<b>1,868.50</b>	<b>4,671.26</b>	<b>2,472.03</b>	<b>29,939.05</b>
(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)								
Hydro-Seeding	4.0600	ACR	18,685.04	2,242.21	1,868.50	4,671.26	2,472.03	29,939.05
<b>Watering</b>	<b>4.0600</b>	<b>ACR</b>	<b>17,427.63</b>	<b>2,091.32</b>	<b>1,742.76</b>	<b>4,356.91</b>	<b>2,305.68</b>	<b>27,924.29</b>
(Note: Assume a total of 5 water applications)								
Watering Large Open Area	20.3000	ACR	9,858.24	1,182.99	985.82	2,464.56	1,304.25	15,795.86

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Travel Time	40.6000	EA	7,569.39	908.33	756.94	1,892.35	1,001.43	12,128.43
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>5,399.88</b>	<b>647.99</b>	<b>539.99</b>	<b>1,349.97</b>	<b>714.40</b>	<b>8,652.23</b>
PLUGS	1,421.0000	EA	4,498.10	539.77	449.81	1,124.52	595.10	7,207.30
Delivery - PLUGS	1,421.0000	EA	901.79	108.21	90.18	225.45	119.31	1,444.94
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>40,815.72</b>	<b>0.00</b>	<b>0.00</b>	<b>10,203.93</b>	<b>15,009.98</b>	<b>66,029.63</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,407.86</b>	<b>0.00</b>	<b>0.00</b>	<b>5,101.97</b>	<b>7,504.99</b>	<b>33,014.82</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>5,039.0000</b>	<b>BCY</b>	<b>15,101.06</b>	<b>0.00</b>	<b>0.00</b>	<b>3,775.27</b>	<b>5,553.42</b>	<b>24,429.74</b>
<b>(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 6,802' * 10'(wide) * 2' (deep)/27 = 5,038.51 BCY.)</b>								
Channel Excavation	5,039.0000	BCY	15,101.06	0.00	0.00	3,775.27	5,553.42	24,429.74
<b>Load/Handle Waste Material</b>	<b>5,794.8500</b>	<b>LCY</b>	<b>5,306.80</b>	<b>0.00</b>	<b>0.00</b>	<b>1,326.70</b>	<b>1,951.58</b>	<b>8,585.07</b>
Load Waste Material	5,794.8500	LCY	5,306.80	0.00	0.00	1,326.70	1,951.58	8,585.07
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,407.86</b>	<b>0.00</b>	<b>0.00</b>	<b>5,101.97</b>	<b>7,504.99</b>	<b>33,014.82</b>
Total O&M for the First Year Dollars	1.0000	EA	20,407.86	0.00	0.00	5,101.97	7,504.99	33,014.82
(Note: This will happen once every five years for a total of two times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>32,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>8,000.00</b>	<b>11,768.00</b>	<b>51,768.00</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	32,000.00	0.00	0.00	8,000.00	11,768.00	51,768.00
(Note: This cost was provided by the environmental section. The cost totaled \$3,200.00 per year for a total of 10 years =)								
<b>Project ID #24</b>	<b>1.0000</b>	<b>LS</b>	<b>1,994,056.64</b>	<b>224,756.12</b>	<b>187,296.77</b>	<b>498,514.16</b>	<b>292,324.09</b>	<b>3,196,947.77</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>1,994,056.64</b>	<b>224,756.12</b>	<b>187,296.77</b>	<b>498,514.16</b>	<b>292,324.09</b>	<b>3,196,947.77</b>
<b>Swale</b>	<b>3.6300</b>	<b>ACR</b>	<b>585,795.94</b>	<b>70,098.89</b>	<b>58,415.74</b>	<b>146,448.98</b>	<b>77,886.59</b>	<b>938,646.15</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal</b>	<b>2,928.2000</b>	<b>LCY</b>	<b>55,664.39</b>	<b>6,679.73</b>	<b>5,566.44</b>	<b>13,916.10</b>	<b>7,364.40</b>	<b>89,191.04</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>2,928.2000</b>	<b>LCY</b>	<b>13,161.71</b>	<b>1,579.40</b>	<b>1,316.17</b>	<b>3,290.43</b>	<b>1,741.29</b>	<b>21,089.00</b>
VEG REMOVAL ABOVE GROUND	3.6300	ACR	3,183.49	382.02	318.35	795.87	421.18	5,100.91
Clearing Large Site	2,928.2000	LCY	9,978.21	1,197.39	997.82	2,494.55	1,320.12	15,988.09
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>3,367.4300</b>	<b>LCY</b>	<b>42,502.68</b>	<b>5,100.32</b>	<b>4,250.27</b>	<b>10,625.67</b>	<b>5,623.10</b>	<b>68,102.04</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	3,367.4300	LCY	42,502.68	5,100.32	4,250.27	10,625.67	5,623.10	68,102.04
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>17,569.2000</b>	<b>BCY</b>	<b>86,279.21</b>	<b>10,353.51</b>	<b>8,627.92</b>	<b>21,569.80</b>	<b>11,414.74</b>	<b>138,245.18</b>
Excavation, Random	17,569.2000	CY	86,279.21	10,353.51	8,627.92	21,569.80	11,414.74	138,245.18
<b>Rough Grading</b>	<b>17,569.2000</b>	<b>SY</b>	<b>8,700.55</b>	<b>1,044.07</b>	<b>870.06</b>	<b>2,175.14</b>	<b>1,151.08</b>	<b>13,940.89</b>
Rough Grading	17,569.2000	SY	8,700.55	1,044.07	870.06	2,175.14	1,151.08	13,940.89
<b>Compaction</b>	<b>5,856.4000</b>	<b>ECY</b>	<b>8,707.56</b>	<b>1,044.91</b>	<b>870.76</b>	<b>2,176.89</b>	<b>1,152.01</b>	<b>13,952.12</b>
Compaction	5,856.4000	ECY	8,707.56	1,044.91	870.76	2,176.89	1,152.01	13,952.12
<b>Load/Handle Waste Material</b>	<b>20,204.5800</b>	<b>LCY</b>	<b>28,131.92</b>	<b>3,375.83</b>	<b>2,813.19</b>	<b>7,032.98</b>	<b>3,721.85</b>	<b>45,075.78</b>
Load Waste Material	20,204.5800	LCY	28,131.92	3,375.83	2,813.19	7,032.98	3,721.85	45,075.78
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>20,204.5800</b>	<b>LCY</b>	<b>83,148.37</b>	<b>9,977.80</b>	<b>8,314.84</b>	<b>20,787.09</b>	<b>11,000.53</b>	<b>133,228.63</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	20,204.5800	LCY	83,148.37	9,977.80	8,314.84	20,787.09	11,000.53	133,228.63
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>3.6300</b>	<b>ACR</b>	<b>313,525.44</b>	<b>37,623.05</b>	<b>31,352.54</b>	<b>78,381.36</b>	<b>41,479.42</b>	<b>502,361.80</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>296,740.50</b>	<b>35,608.86</b>	<b>29,674.05</b>	<b>74,185.12</b>	<b>39,258.77</b>	<b>475,467.30</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Cottonwood Trees	98.0100	EA	12,248.93	1,469.87	1,224.89	3,062.23	1,620.53	19,626.46
Delivery - Cottonwood Trees	98.0100	EA	680.30	81.64	68.03	170.07	90.00	1,090.04
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	17,569.2000	EA	232,352.12	27,882.25	23,235.21	58,088.03	30,740.19	372,297.81
Delivery - Coyote Willows	17,569.2000	EA	30,971.36	3,716.56	3,097.14	7,742.84	4,097.51	49,625.41
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	199.6500	EA	19,102.00	2,292.24	1,910.20	4,775.50	2,527.19	30,607.13
Delivery - Gooding's Willow Trees	199.6500	EA	1,385.79	166.30	138.58	346.45	183.34	2,220.46
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>11,956.96</b>	<b>1,434.84</b>	<b>1,195.70</b>	<b>2,989.24</b>	<b>1,581.91</b>	<b>19,158.64</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	225.0600	EA	10,568.37	1,268.20	1,056.84	2,642.09	1,398.20	16,933.70
Delivery - Shrubs	225.0600	EA	1,388.59	166.63	138.86	347.15	183.71	2,224.94
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>4,827.98</b>	<b>579.36</b>	<b>482.80</b>	<b>1,206.99</b>	<b>638.74</b>	<b>7,735.87</b>
PLUGS	1,270.5000	EA	4,021.70	482.60	402.17	1,005.42	532.07	6,443.96
Delivery - PLUGS	1,270.5000	EA	806.28	96.75	80.63	201.57	106.67	1,291.90
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>1,638.51</b>	<b>0.00</b>	<b>0.00</b>	<b>409.63</b>	<b>602.56</b>	<b>2,650.70</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>546.17</b>	<b>0.00</b>	<b>0.00</b>	<b>136.54</b>	<b>200.85</b>	<b>883.57</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1815</b>	<b>ACR</b>	<b>546.17</b>	<b>0.00</b>	<b>0.00</b>	<b>136.54</b>	<b>200.85</b>	<b>883.57</b>
VEG REMOVAL ABOVE GROUND	0.1815	ACR	104.70	0.00	0.00	26.18	38.50	169.38
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.3630	ACR	441.47	0.00	0.00	110.37	162.35	714.18

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,092.34</b>	<b>0.00</b>	<b>0.00</b>	<b>273.09</b>	<b>401.71</b>	<b>1,767.13</b>
Total O&M for the First Year Dollars	2.0000	EA	1,092.34	0.00	0.00	273.09	401.71	1,767.13
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>23.3200</b>	<b>ACR</b>	<b>693,765.32</b>	<b>75,761.51</b>	<b>63,134.59</b>	<b>173,441.33</b>	<b>106,481.80</b>	<b>1,112,584.55</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>23.3200</b>	<b>ACR</b>	<b>137,198.58</b>	<b>16,463.83</b>	<b>13,719.86</b>	<b>34,299.64</b>	<b>18,151.37</b>	<b>219,833.28</b>
VEG REMOVAL ABOVE GROUND	23.3200	ACR	26,316.46	3,157.97	2,631.65	6,579.11	3,481.67	42,166.86
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	46.6400	ACR	110,882.12	13,305.85	11,088.21	27,720.53	14,669.70	177,666.42
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>23.3200</b>	<b>ACR</b>	<b>494,147.36</b>	<b>59,297.68</b>	<b>49,414.74</b>	<b>123,536.84</b>	<b>65,375.70</b>	<b>791,772.32</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>223,907.96</b>	<b>26,868.96</b>	<b>22,390.80</b>	<b>55,976.99</b>	<b>29,623.02</b>	<b>358,767.73</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	699.6000	EA	87,433.44	10,492.01	8,743.34	21,858.36	11,567.44	140,094.60
Delivery - Cottonwood Trees	699.6000	EA	4,856.00	582.72	485.60	1,214.00	642.45	7,780.77
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	1,282.6000	EA	122,715.85	14,725.90	12,271.59	30,678.96	16,235.31	196,627.61
Delivery - Gooding's Willow Trees	1,282.6000	EA	8,902.67	1,068.32	890.27	2,225.67	1,177.82	14,264.74
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>148,673.05</b>	<b>17,840.77</b>	<b>14,867.31</b>	<b>37,168.26</b>	<b>19,669.44</b>	<b>238,218.83</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	2,798.4000	EA	131,407.28	15,768.87	13,140.73	32,851.82	17,385.18	210,553.88
Delivery - Shrubs	2,798.4000	EA	17,265.78	2,071.89	1,726.58	4,316.44	2,284.26	27,664.95
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>4.6640</b>	<b>ACR</b>	<b>21,464.79</b>	<b>2,575.77</b>	<b>2,146.48</b>	<b>5,366.20</b>	<b>2,839.79</b>	<b>34,393.03</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	4.6640	ACR	21,464.79	2,575.77	2,146.48	5,366.20	2,839.79	34,393.03
<b>Watering</b>	<b>23.3200</b>	<b>ACR</b>	<b>100,101.56</b>	<b>12,012.19</b>	<b>10,010.16</b>	<b>25,025.39</b>	<b>13,243.44</b>	<b>160,392.73</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	116.6000	ACR	56,624.20	6,794.90	5,662.42	14,156.05	7,491.38	90,728.96
(Note: Water 5 times in the contract life.)								
Travel Time	233.2000	EA	43,477.36	5,217.28	4,347.74	10,869.34	5,752.05	69,663.77
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>62,419.38</b>	<b>0.00</b>	<b>0.00</b>	<b>15,604.85</b>	<b>22,954.73</b>	<b>100,978.95</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>20,806.46</b>	<b>0.00</b>	<b>0.00</b>	<b>5,201.62</b>	<b>7,651.58</b>	<b>33,659.65</b>
<b>Treat-Retreat-Reveg</b>	<b>1.1660</b>	<b>ACR</b>	<b>20,806.46</b>	<b>0.00</b>	<b>0.00</b>	<b>5,201.62</b>	<b>7,651.58</b>	<b>33,659.65</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>1.1660</b>	<b>ACR</b>	<b>3,508.73</b>	<b>0.00</b>	<b>0.00</b>	<b>877.18</b>	<b>1,290.33</b>	<b>5,676.25</b>
VEG REMOVAL ABOVE GROUND	1.1660	ACR	672.64	0.00	0.00	168.16	247.36	1,088.16
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	2.3320	ACR	2,836.09	0.00	0.00	709.02	1,042.97	4,588.09
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>41,612.92</b>	<b>0.00</b>	<b>0.00</b>	<b>10,403.23</b>	<b>15,303.15</b>	<b>67,319.30</b>
Total O&M for the First Year Dollars	2.0000	EA	41,612.92	0.00	0.00	10,403.23	15,303.15	67,319.30
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Connect Wetlands</b>	<b>2.3000</b>	<b>ACR</b>	<b>173,367.86</b>	<b>18,931.51</b>	<b>15,776.26</b>	<b>43,341.96</b>	<b>26,610.84</b>	<b>278,028.42</b>
<b>Connect Wetlands</b>	<b>3,853.3846</b>	<b>LF</b>	<b>173,367.86</b>	<b>18,931.51</b>	<b>15,776.26</b>	<b>43,341.96</b>	<b>26,610.84</b>	<b>278,028.42</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>1,855.3333</b>	<b>LCY</b>	<b>35,268.31</b>	<b>4,232.20</b>	<b>3,526.83</b>	<b>8,817.08</b>	<b>4,666.00</b>	<b>56,510.41</b>
<b>Clearing</b>	<b>1,855.3333</b>	<b>LCY</b>	<b>8,338.24</b>	<b>1,000.59</b>	<b>833.82</b>	<b>2,084.56</b>	<b>1,103.15</b>	<b>13,360.36</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	1,855.0000	LCY	6,321.15	758.54	632.11	1,580.29	836.29	10,128.37
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	2.3000	ACR	2,017.09	242.05	201.71	504.27	266.86	3,231.98
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>2,133.6333</b>	<b>LCY</b>	<b>26,930.07</b>	<b>3,231.61</b>	<b>2,693.01</b>	<b>6,732.52</b>	<b>3,562.85</b>	<b>43,150.05</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	2,133.6333	LCY	26,930.07	3,231.61	2,693.01	6,732.52	3,562.85	43,150.05
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle/hr; 20 lcy/cycle x 1.83 cycles/hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>10,275.6923</b>	<b>BCY</b>	<b>46,824.65</b>	<b>5,618.96</b>	<b>4,682.46</b>	<b>11,706.16</b>	<b>6,194.90</b>	<b>75,027.13</b>
Channel Excavation	10,275.6923	BCY	46,824.65	5,618.96	4,682.46	11,706.16	6,194.90	75,027.13
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Load/Handle Waste Material</b>	<b>11,817.0462</b>	<b>LCY</b>	<b>16,453.51</b>	<b>1,974.42</b>	<b>1,645.35</b>	<b>4,113.38</b>	<b>2,176.80</b>	<b>26,363.46</b>
Load Waste Material	11,817.0462	LCY	16,453.51	1,974.42	1,645.35	4,113.38	2,176.80	26,363.46
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>11,817.0462</b>	<b>LCY</b>	<b>48,630.96</b>	<b>5,835.72</b>	<b>4,863.10</b>	<b>12,157.74</b>	<b>6,433.88</b>	<b>77,921.39</b>
Haul Waste Material	11,817.0462	LCY	48,630.96	5,835.72	4,863.10	12,157.74	6,433.88	77,921.39
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy / cycle x 2 cycles / hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>3,853.3846</b>	<b>LF</b>	<b>10,585.12</b>	<b>1,270.21</b>	<b>1,058.51</b>	<b>2,646.28</b>	<b>1,400.41</b>	<b>16,960.54</b>
<b>Seeding</b>	<b>2.3000</b>	<b>ACR</b>	<b>10,585.12</b>	<b>1,270.21</b>	<b>1,058.51</b>	<b>2,646.28</b>	<b>1,400.41</b>	<b>16,960.54</b>
(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)								
Hydro-Seeding	2.3000	ACR	10,585.12	1,270.21	1,058.51	2,646.28	1,400.41	16,960.54
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>15,605.31</b>	<b>0.00</b>	<b>0.00</b>	<b>3,901.33</b>	<b>5,738.85</b>	<b>25,245.49</b>
(Note: CWCCIS Escalation Calculation is 06 Fish & Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management & Monitoring plus 10 yrs of O&M takes us to year 2036.)								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>5,201.77</b>	<b>0.00</b>	<b>0.00</b>	<b>1,300.44</b>	<b>1,912.95</b>	<b>8,415.16</b>
<b>Treat-Retreat-Reveg</b>	<b>0.1150</b>	<b>ACR</b>	<b>5,201.77</b>	<b>0.00</b>	<b>0.00</b>	<b>1,300.44</b>	<b>1,912.95</b>	<b>8,415.16</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1150</b>	<b>ACR</b>	<b>346.06</b>	<b>0.00</b>	<b>0.00</b>	<b>86.51</b>	<b>127.26</b>	<b>559.84</b>
VEG REMOVAL ABOVE GROUND	0.1150	ACR	66.34	0.00	0.00	16.59	24.40	107.32
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.2300	ACR	279.72	0.00	0.00	69.93	102.87	452.51
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.4490</b>	<b>ACR</b>	<b>4,855.71</b>	<b>0.00</b>	<b>0.00</b>	<b>1,213.93</b>	<b>1,785.69</b>	<b>7,855.32</b>
<b>Tree Plantings</b>	<b>0.4490</b>	<b>ACR</b>	<b>2,190.94</b>	<b>0.00</b>	<b>0.00</b>	<b>547.74</b>	<b>805.72</b>	<b>3,544.40</b>
(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)								
Cottonwood Trees	13.0000	EA	831.67	0.00	0.00	207.92	305.85	1,345.43
Delivery - Cottonwood Trees	13.0000	EA	46.15	0.00	0.00	11.54	16.97	74.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles / hr = 32 trees / hr)								
Gooding's Willows	25.0000	EA	1,224.37	0.00	0.00	306.09	450.26	1,980.72

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Gooding's Willow Trees	25.0000	EA	88.75	0.00	0.00	22.19	32.64	143.58
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,468.19</b>	<b>0.00</b>	<b>0.00</b>	<b>367.05</b>	<b>539.93</b>	<b>2,375.16</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	54.0000	EA	1,297.78	0.00	0.00	324.45	477.26	2,099.49
Delivery - Shrubs	54.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0898</b>	<b>ACR</b>	<b>211.43</b>	<b>0.00</b>	<b>0.00</b>	<b>52.86</b>	<b>77.76</b>	<b>342.05</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0898	ACR	211.43	0.00	0.00	52.86	77.76	342.05
<b>Watering</b>	<b>0.4490</b>	<b>ACR</b>	<b>985.14</b>	<b>0.00</b>	<b>0.00</b>	<b>246.29</b>	<b>362.29</b>	<b>1,593.71</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.2450	ACR	557.28	0.00	0.00	139.32	204.94	901.54
(Note: Water 5 times in the contract life.)								
Travel Time	4.4900	EA	427.86	0.00	0.00	106.97	157.35	692.18
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,403.54</b>	<b>0.00</b>	<b>0.00</b>	<b>2,600.89</b>	<b>3,825.90</b>	<b>16,830.33</b>
Total O&M for the First Year Dollars	2.0000	EA	10,403.54	0.00	0.00	2,600.89	3,825.90	16,830.33
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Wetland (Water Feature)</b>	<b>3.0100</b>	<b>ACR</b>	<b>515,627.52</b>	<b>59,964.21</b>	<b>49,970.17</b>	<b>128,906.88</b>	<b>71,967.24</b>	<b>826,436.03</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>2,428.0667</b>	<b>LCY</b>	<b>46,156.97</b>	<b>5,538.84</b>	<b>4,615.70</b>	<b>11,539.24</b>	<b>6,106.57</b>	<b>73,957.31</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>2,428.0667</b>	<b>LCY</b>	<b>10,913.70</b>	<b>1,309.64</b>	<b>1,091.37</b>	<b>2,728.43</b>	<b>1,443.88</b>	<b>17,487.02</b>
VEG REMOVAL ABOVE GROUND	3.0100	ACR	2,639.76	316.77	263.98	659.94	349.24	4,229.68
Clearing Large Site	2,428.0667	LCY	8,273.94	992.87	827.39	2,068.49	1,094.64	13,257.34
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>2,792.2767</b>	<b>LCY</b>	<b>35,243.27</b>	<b>4,229.19</b>	<b>3,524.33</b>	<b>8,810.82</b>	<b>4,662.68</b>	<b>56,470.29</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load, Haul and Dispose	2,792.2767	LCY	35,243.27	4,229.19	3,524.33	8,810.82	4,662.68	56,470.29
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle/hr; 20 lcy /cycle x 1.83 cycles/hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>24,280.6667</b>	<b>BCY</b>	<b>119,238.03</b>	<b>14,308.56</b>	<b>11,923.80</b>	<b>29,809.51</b>	<b>15,775.19</b>	<b>191,055.09</b>
Excavation, Random	24,280.6667	CY	119,238.03	14,308.56	11,923.80	29,809.51	15,775.19	191,055.09
<b>Rough Grading</b>	<b>14,568.4000</b>	<b>SY</b>	<b>7,214.51</b>	<b>865.74</b>	<b>721.45</b>	<b>1,803.63</b>	<b>954.48</b>	<b>11,559.80</b>
Rough Grading	14,568.4000	SY	7,214.51	865.74	721.45	1,803.63	954.48	11,559.80
<b>Compaction</b>	<b>4,856.1333</b>	<b>ECY</b>	<b>7,220.31</b>	<b>866.44</b>	<b>722.03</b>	<b>1,805.08</b>	<b>955.25</b>	<b>11,569.11</b>
Compaction	4,856.1333	ECY	7,220.31	866.44	722.03	1,805.08	955.25	11,569.11
<b>Load/Handle Waste Material</b>	<b>27,922.7667</b>	<b>LCY</b>	<b>38,878.37</b>	<b>4,665.40</b>	<b>3,887.84</b>	<b>9,719.59</b>	<b>5,143.61</b>	<b>62,294.81</b>
Load Waste Material	27,922.7667	LCY	38,878.37	4,665.40	3,887.84	9,719.59	5,143.61	62,294.81
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>27,922.7667</b>	<b>LCY</b>	<b>114,911.20</b>	<b>13,789.34</b>	<b>11,491.12</b>	<b>28,727.80</b>	<b>15,202.75</b>	<b>184,122.21</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	27,922.7667	LCY	114,911.20	13,789.34	11,491.12	28,727.80	15,202.75	184,122.21
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>3.0100</b>	<b>ACR</b>	<b>166,082.36</b>	<b>19,929.88</b>	<b>16,608.24</b>	<b>41,520.59</b>	<b>21,972.70</b>	<b>266,113.76</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>166,082.36</b>	<b>19,929.88</b>	<b>16,608.24</b>	<b>41,520.59</b>	<b>21,972.70</b>	<b>266,113.76</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	43,705.2000	EA	138,346.35	16,601.56	13,834.64	34,586.59	18,303.22	221,672.36
Delivery - PLUGS	43,705.2000	EA	27,736.00	3,328.32	2,773.60	6,934.00	3,669.47	44,441.40
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle/hr; 800 PLUGS/cycle x 0.45 cycles/hr = 350 PLUGS/hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>15,925.77</b>	<b>0.00</b>	<b>0.00</b>	<b>3,981.44</b>	<b>5,856.70</b>	<b>25,763.92</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>5,308.59</b>	<b>0.00</b>	<b>0.00</b>	<b>1,327.15</b>	<b>1,952.24</b>	<b>8,587.98</b>
<b>Treat-Retreat-Reveg</b>	<b>0.1505</b>	<b>ACR</b>	<b>5,308.59</b>	<b>0.00</b>	<b>0.00</b>	<b>1,327.15</b>	<b>1,952.24</b>	<b>8,587.98</b>

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.1505</b>	<b>ACR</b>	<b>452.88</b>	<b>0.00</b>	<b>0.00</b>	<b>113.22</b>	<b>166.55</b>	<b>732.65</b>
VEG REMOVAL ABOVE GROUND	0.1505	ACR	86.82	0.00	0.00	21.70	31.93	140.45
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	0.3010	ACR	366.07	0.00	0.00	91.52	134.62	592.20
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.4490</b>	<b>ACR</b>	<b>4,855.71</b>	<b>0.00</b>	<b>0.00</b>	<b>1,213.93</b>	<b>1,785.69</b>	<b>7,855.32</b>
<b>Tree Plantings</b>	<b>0.4490</b>	<b>ACR</b>	<b>2,190.94</b>	<b>0.00</b>	<b>0.00</b>	<b>547.74</b>	<b>805.72</b>	<b>3,544.40</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	13.0000	EA	831.67	0.00	0.00	207.92	305.85	1,345.43
Delivery - Cottonwood Trees	13.0000	EA	46.15	0.00	0.00	11.54	16.97	74.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	25.0000	EA	1,224.37	0.00	0.00	306.09	450.26	1,980.72
Delivery - Gooding's Willow Trees	25.0000	EA	88.75	0.00	0.00	22.19	32.64	143.58
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,468.19</b>	<b>0.00</b>	<b>0.00</b>	<b>367.05</b>	<b>539.93</b>	<b>2,375.16</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	54.0000	EA	1,297.78	0.00	0.00	324.45	477.26	2,099.49
Delivery - Shrubs	54.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.0898</b>	<b>ACR</b>	<b>211.43</b>	<b>0.00</b>	<b>0.00</b>	<b>52.86</b>	<b>77.76</b>	<b>342.05</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0898	ACR	211.43	0.00	0.00	52.86	77.76	342.05
<b>Watering</b>	<b>0.4490</b>	<b>ACR</b>	<b>985.14</b>	<b>0.00</b>	<b>0.00</b>	<b>246.29</b>	<b>362.29</b>	<b>1,593.71</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.2450	ACR	557.28	0.00	0.00	139.32	204.94	901.54
(Note: Water 5 times in the contract life.)								
Travel Time	4.4900	EA	427.86	0.00	0.00	106.97	157.35	692.18
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>10,617.18</b>	<b>0.00</b>	<b>0.00</b>	<b>2,654.30</b>	<b>3,904.47</b>	<b>17,175.94</b>

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Total O&M for the First Year Dollars	2.0000	EA	10,617.18	0.00	0.00	2,654.30	3,904.47	17,175.94
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>25,500.00</b>	<b>0.00</b>	<b>0.00</b>	<b>6,375.00</b>	<b>9,377.63</b>	<b>41,252.63</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	25,500.00	0.00	0.00	6,375.00	9,377.63	41,252.63
(Note: This cost was provided by the environmental section. The cost totaled \$2,550.00 per year for a total of 10 years =)								
<b>Project ID #25</b>	<b>1.0000</b>	<b>LS</b>	<b>3,869,623.55</b>	<b>445,155.81</b>	<b>370,963.18</b>	<b>967,405.89</b>	<b>549,621.26</b>	<b>6,202,769.68</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>3,869,623.55</b>	<b>445,155.81</b>	<b>370,963.18</b>	<b>967,405.89</b>	<b>549,621.26</b>	<b>6,202,769.68</b>
<b>Swale</b>	<b>10.1400</b>	<b>ACR</b>	<b>1,636,355.61</b>	<b>195,813.43</b>	<b>163,177.86</b>	<b>409,088.90</b>	<b>217,567.50</b>	<b>2,622,003.31</b>
<b>(Note: Assume an average 3 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>8,179.6000</b>	<b>LCY</b>	<b>155,492.25</b>	<b>18,659.07</b>	<b>15,549.22</b>	<b>38,873.06</b>	<b>20,571.62</b>	<b>249,145.23</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>8,179.6000</b>	<b>LCY</b>	<b>36,765.76</b>	<b>4,411.89</b>	<b>3,676.58</b>	<b>9,191.44</b>	<b>4,864.11</b>	<b>58,909.77</b>
VEG REMOVAL ABOVE GROUND	10.1400	ACR	8,892.73	1,067.13	889.27	2,223.18	1,176.51	14,248.83
Clearing Large Site	8,179.6000	LCY	27,873.02	3,344.76	2,787.30	6,968.26	3,687.60	44,660.94
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
<b>Haul Waste</b>	<b>9,406.5400</b>	<b>LCY</b>	<b>118,726.49</b>	<b>14,247.18</b>	<b>11,872.65</b>	<b>29,681.62</b>	<b>15,707.51</b>	<b>190,235.46</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	9,406.5400	LCY	118,726.49	14,247.18	11,872.65	29,681.62	15,707.51	190,235.46
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>49,077.6000</b>	<b>BCY</b>	<b>241,011.34</b>	<b>28,921.36</b>	<b>24,101.13</b>	<b>60,252.84</b>	<b>31,885.80</b>	<b>386,172.48</b>
Excavation, Random	49,077.6000	CY	241,011.34	28,921.36	24,101.13	60,252.84	31,885.80	386,172.48
<b>Rough Grading</b>	<b>49,077.6000</b>	<b>SY</b>	<b>24,304.02</b>	<b>2,916.48</b>	<b>2,430.40</b>	<b>6,076.00</b>	<b>3,215.42</b>	<b>38,942.33</b>
Rough Grading	49,077.6000	SY	24,304.02	2,916.48	2,430.40	6,076.00	3,215.42	38,942.33
<b>Compaction</b>	<b>16,359.2000</b>	<b>ECY</b>	<b>24,323.59</b>	<b>2,918.83</b>	<b>2,432.36</b>	<b>6,080.90</b>	<b>3,218.01</b>	<b>38,973.68</b>
Compaction	16,359.2000	ECY	24,323.59	2,918.83	2,432.36	6,080.90	3,218.01	38,973.68
<b>Load/Handle Waste Material</b>	<b>56,439.2400</b>	<b>LCY</b>	<b>78,583.39</b>	<b>9,430.01</b>	<b>7,858.34</b>	<b>19,645.85</b>	<b>10,396.58</b>	<b>125,914.17</b>

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load Waste Material	56,439.2400	LCY	78,583.39	9,430.01	7,858.34	19,645.85	10,396.58	125,914.17
(Note: 138 lcy per hour to match the excavation rate)								
<b>Haul Waste Material</b>	<b>56,439.2400</b>	<b>LCY</b>	<b>232,265.69</b>	<b>27,871.88</b>	<b>23,226.57</b>	<b>58,066.42</b>	<b>30,728.75</b>	<b>372,159.32</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	56,439.2400	LCY	232,265.69	27,871.88	23,226.57	58,066.42	30,728.75	372,159.32
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>10.1400</b>	<b>ACR</b>	<b>875,798.32</b>	<b>105,095.80</b>	<b>87,579.83</b>	<b>218,949.58</b>	<b>115,868.12</b>	<b>1,403,291.65</b>
<b>(Note: There is No Watering of the Swale Area, as the ground water table is high enough after excavation to supply roots with water, per Environmental guidance.)</b>								
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>828,911.48</b>	<b>99,469.38</b>	<b>82,891.15</b>	<b>207,227.87</b>	<b>109,664.99</b>	<b>1,328,164.86</b>
<b>(Note: Assume 27 cottonwood trees, 55 Goodings willow trees, and 1000 coyote willows, 350 Plugs - per acre.)</b>								
Cottonwood Trees	273.7800	EA	34,216.02	4,105.92	3,421.60	8,554.01	4,526.78	54,824.33
Delivery - Cottonwood Trees	273.7800	EA	1,900.34	228.04	190.03	475.08	251.41	3,044.91
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	49,077.6000	EA	649,049.73	77,885.97	64,904.97	162,262.43	85,869.28	1,039,972.39
Delivery - Coyote Willows	49,077.6000	EA	86,515.04	10,381.80	8,651.50	21,628.76	11,445.94	138,623.04
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	557.7000	EA	53,359.30	6,403.12	5,335.93	13,339.82	7,059.43	85,497.60
Delivery - Gooding's Willow Trees	557.7000	EA	3,871.06	464.53	387.11	967.76	512.14	6,202.59
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>33,400.43</b>	<b>4,008.05</b>	<b>3,340.04</b>	<b>8,350.11</b>	<b>4,418.88</b>	<b>53,517.52</b>
<b>(Note: Assume 62 shrubs per acre.)</b>								
Shrubs	628.6800	EA	29,521.56	3,542.59	2,952.16	7,380.39	3,905.70	47,302.39
Delivery - Shrubs	628.6800	EA	3,878.88	465.47	387.89	969.72	513.18	6,215.12
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>13,486.41</b>	<b>1,618.37</b>	<b>1,348.64</b>	<b>3,371.60</b>	<b>1,784.25</b>	<b>21,609.28</b>
PLUGS	3,549.0000	EA	11,234.16	1,348.10	1,123.42	2,808.54	1,486.28	18,000.49
Delivery - PLUGS	3,549.0000	EA	2,252.25	270.27	225.23	563.06	297.97	3,608.78

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)</b>								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>4,577.01</b>	<b>0.00</b>	<b>0.00</b>	<b>1,144.25</b>	<b>1,683.19</b>	<b>7,404.45</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>1,525.67</b>	<b>0.00</b>	<b>0.00</b>	<b>381.42</b>	<b>561.06</b>	<b>2,468.14</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.5070</b>	<b>ACR</b>	<b>1,525.67</b>	<b>0.00</b>	<b>0.00</b>	<b>381.42</b>	<b>561.06</b>	<b>2,468.14</b>
VEG REMOVAL ABOVE GROUND	0.5070	ACR	292.48	0.00	0.00	73.12	107.56	473.15
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	1.0140	ACR	1,233.19	0.00	0.00	308.30	453.51	1,994.99
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>3,051.34</b>	<b>0.00</b>	<b>0.00</b>	<b>762.84</b>	<b>1,122.13</b>	<b>4,936.31</b>
Total O&M for the First Year Dollars	2.0000	EA	3,051.34	0.00	0.00	762.84	1,122.13	4,936.31
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Treat-Retreat-Reveg</b>	<b>76.4800</b>	<b>ACR</b>	<b>2,156,969.54</b>	<b>248,466.57</b>	<b>207,055.48</b>	<b>539,242.39</b>	<b>305,713.43</b>	<b>3,457,447.40</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>76.4800</b>	<b>ACR</b>	<b>449,954.85</b>	<b>53,994.58</b>	<b>44,995.49</b>	<b>112,488.71</b>	<b>59,529.03</b>	<b>720,962.66</b>
VEG REMOVAL ABOVE GROUND	76.4800	ACR	86,307.15	10,356.86	8,630.71	21,576.79	11,418.44	138,289.94
<b>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</b>								
Exotic Species Removal Herbicide Treatment	152.9600	ACR	363,647.70	43,637.72	36,364.77	90,911.93	48,110.59	582,672.72
<b>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</b>								
<b>Revegetation</b>	<b>76.4800</b>	<b>ACR</b>	<b>1,620,599.93</b>	<b>194,471.99</b>	<b>162,059.99</b>	<b>405,149.98</b>	<b>214,405.37</b>	<b>2,596,687.27</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>734,325.94</b>	<b>88,119.11</b>	<b>73,432.59</b>	<b>183,581.49</b>	<b>97,151.32</b>	<b>1,176,610.45</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2,294.4000	EA	286,745.70	34,409.48	28,674.57	71,686.42	37,936.46	459,452.63
Delivery - Cottonwood Trees	2,294.4000	EA	15,925.68	1,911.08	1,592.57	3,981.42	2,106.97	25,517.72
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	4,206.4000	EA	402,457.49	48,294.90	40,245.75	100,614.37	53,245.13	644,857.63
Delivery - Gooding's Willow Trees	4,206.4000	EA	29,197.08	3,503.65	2,919.71	7,299.27	3,862.77	46,782.48
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>487,586.41</b>	<b>58,510.37</b>	<b>48,758.64</b>	<b>121,896.60</b>	<b>64,507.68</b>	<b>781,259.71</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	9,177.6000	EA	430,961.77	51,715.41	43,096.18	107,740.44	57,016.24	690,530.05
Delivery - Shrubs	9,177.6000	EA	56,624.64	6,794.96	5,662.46	14,156.16	7,491.44	90,729.66
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>15.2960</b>	<b>ACR</b>	<b>70,395.67</b>	<b>8,447.48</b>	<b>7,039.57</b>	<b>17,598.92</b>	<b>9,313.35</b>	<b>112,794.99</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	15.2960	ACR	70,395.67	8,447.48	7,039.57	17,598.92	9,313.35	112,794.99
<b>Watering</b>	<b>76.4800</b>	<b>ACR</b>	<b>328,291.91</b>	<b>39,395.03</b>	<b>32,829.19</b>	<b>82,072.98</b>	<b>43,433.02</b>	<b>526,022.12</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	382.4000	ACR	185,704.07	22,284.49	18,570.41	46,426.02	24,568.65	297,553.63
(Note: Water 5 times in the contract life.)								
Travel Time	764.8000	EA	142,587.84	17,110.54	14,258.78	35,646.96	18,864.37	228,468.49
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>86,414.76</b>	<b>0.00</b>	<b>0.00</b>	<b>21,603.69</b>	<b>31,779.03</b>	<b>139,797.47</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>28,804.92</b>	<b>0.00</b>	<b>0.00</b>	<b>7,201.23</b>	<b>10,593.01</b>	<b>46,599.16</b>
<b>Treat-Retreat-Reveg</b>	<b>3.8240</b>	<b>ACR</b>	<b>28,804.92</b>	<b>0.00</b>	<b>0.00</b>	<b>7,201.23</b>	<b>10,593.01</b>	<b>46,599.16</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>3.8240</b>	<b>ACR</b>	<b>11,507.19</b>	<b>0.00</b>	<b>0.00</b>	<b>2,876.80</b>	<b>4,231.77</b>	<b>18,615.75</b>
VEG REMOVAL ABOVE GROUND	3.8240	ACR	2,205.97	0.00	0.00	551.49	811.25	3,568.71
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	7.6480	ACR	9,301.21	0.00	0.00	2,325.30	3,420.52	15,047.04
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
<b>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</b>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>57,609.84</b>	<b>0.00</b>	<b>0.00</b>	<b>14,402.46</b>	<b>21,186.02</b>	<b>93,198.32</b>
Total O&M for the First Year Dollars	2.0000	EA	57,609.84	0.00	0.00	14,402.46	21,186.02	93,198.32
<b>(Note: This will happen once every three years for a total of three times in 10years.)</b>								
<b>Divert outfall flows - Grading Only</b>	<b>2.0300</b>	<b>ACR</b>	<b>7,298.40</b>	<b>875.81</b>	<b>729.84</b>	<b>1,824.60</b>	<b>965.58</b>	<b>11,694.22</b>
<b>Site Grading only</b>	<b>9,825.2000</b>	<b>SY</b>	<b>7,298.40</b>	<b>875.81</b>	<b>729.84</b>	<b>1,824.60</b>	<b>965.58</b>	<b>11,694.22</b>
Grading at Outfall - Divert Flows	9,825.2000	SY	7,298.40	875.81	729.84	1,824.60	965.58	11,694.22
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>69,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>17,250.00</b>	<b>25,374.75</b>	<b>111,624.75</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	69,000.00	0.00	0.00	17,250.00	25,374.75	111,624.75
<b>(Note: This cost was provided by the environmental section. The cost totaled \$6,900 per year for a total of 10 years =)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Project ID #26</b>	<b>1.0000</b>	<b>LS</b>	<b>8,730,946.60</b>	<b>997,670.80</b>	<b>831,392.33</b>	<b>2,182,736.65</b>	<b>1,253,292.36</b>	<b>13,996,038.74</b>
<b>Fish and Wildlife Facilities</b>	<b>1.0000</b>	<b>LS</b>	<b>8,730,946.60</b>	<b>997,670.80</b>	<b>831,392.33</b>	<b>2,182,736.65</b>	<b>1,253,292.36</b>	<b>13,996,038.74</b>
<b>Treat-Retreat-Reveg</b>	<b>87.4400</b>	<b>ACR</b>	<b>2,458,638.43</b>	<b>284,073.19</b>	<b>236,727.65</b>	<b>614,659.61</b>	<b>346,789.02</b>	<b>3,940,887.89</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>87.4400</b>	<b>ACR</b>	<b>514,435.83</b>	<b>61,732.30</b>	<b>51,443.58</b>	<b>128,608.96</b>	<b>68,059.86</b>	<b>824,280.53</b>
VEG REMOVAL ABOVE GROUND	87.4400	ACR	98,675.43	11,841.05	9,867.54	24,668.86	13,054.76	158,107.64
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	174.8800	ACR	415,760.40	49,891.25	41,576.04	103,940.10	55,005.10	666,172.88
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>87.4400</b>	<b>ACR</b>	<b>1,852,840.72</b>	<b>222,340.89</b>	<b>185,284.07</b>	<b>463,210.18</b>	<b>245,130.83</b>	<b>2,968,806.68</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>839,558.84</b>	<b>100,747.06</b>	<b>83,955.88</b>	<b>209,889.71</b>	<b>111,073.63</b>	<b>1,345,225.13</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	2,623.2000	EA	327,837.91	39,340.55	32,783.79	81,959.48	43,372.96	525,294.69
Delivery - Cottonwood Trees	2,623.2000	EA	18,207.92	2,184.95	1,820.79	4,551.98	2,408.91	29,174.54
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	4,809.2000	EA	460,131.83	55,215.82	46,013.18	115,032.96	60,875.44	737,269.23
Delivery - Gooding's Willow Trees	4,809.2000	EA	33,381.18	4,005.74	3,338.12	8,345.30	4,416.33	53,486.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>557,460.20</b>	<b>66,895.22</b>	<b>55,746.02</b>	<b>139,365.05</b>	<b>73,751.98</b>	<b>893,218.47</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	10,492.8000	EA	492,720.94	59,126.51	49,272.09	123,180.23	65,186.98	789,486.76
Delivery - Shrubs	10,492.8000	EA	64,739.26	7,768.71	6,473.93	16,184.81	8,565.00	103,731.71
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>17.4880</b>	<b>ACR</b>	<b>80,483.76</b>	<b>9,658.05</b>	<b>8,048.38</b>	<b>20,120.94</b>	<b>10,648.00</b>	<b>128,959.12</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	17.4880	ACR	80,483.76	9,658.05	8,048.38	20,120.94	10,648.00	128,959.12
<b>Watering</b>	<b>87.4400</b>	<b>ACR</b>	<b>375,337.92</b>	<b>45,040.55</b>	<b>37,533.79</b>	<b>93,834.48</b>	<b>49,657.21</b>	<b>601,403.96</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	437.2000	ACR	212,316.47	25,477.98	21,231.65	53,079.12	28,089.47	340,194.68

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: Water 5 times in the contract life.)</b>								
Travel Time	874.4000	EA	163,021.45	19,562.57	16,302.15	40,755.36	21,567.74	261,209.27
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>91,361.88</b>	<b>0.00</b>	<b>0.00</b>	<b>22,840.47</b>	<b>33,598.33</b>	<b>147,800.68</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>30,453.96</b>	<b>0.00</b>	<b>0.00</b>	<b>7,613.49</b>	<b>11,199.44</b>	<b>49,266.89</b>
<b>Treat-Retreat-Reveg</b>	<b>4.3720</b>	<b>ACR</b>	<b>30,453.96</b>	<b>0.00</b>	<b>0.00</b>	<b>7,613.49</b>	<b>11,199.44</b>	<b>49,266.89</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>4.3720</b>	<b>ACR</b>	<b>13,156.23</b>	<b>0.00</b>	<b>0.00</b>	<b>3,289.06</b>	<b>4,838.20</b>	<b>21,283.49</b>
VEG REMOVAL ABOVE GROUND	4.3720	ACR	2,522.10	0.00	0.00	630.52	927.50	4,080.12
<i>(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)</i>								
Exotic Species Removal Herbicide Treatment	8.7440	ACR	10,634.13	0.00	0.00	2,658.53	3,910.70	17,203.36
<i>(Note: Quantity is times 2, because of the Treat and Retreat applications.)</i>								
<b>Revegetation</b>	<b>1.5915</b>	<b>ACR</b>	<b>17,297.73</b>	<b>0.00</b>	<b>0.00</b>	<b>4,324.43</b>	<b>6,361.24</b>	<b>27,983.41</b>
<b>Tree Plantings</b>	<b>1.5915</b>	<b>ACR</b>	<b>7,863.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1,965.84</b>	<b>2,891.75</b>	<b>12,720.97</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	48.0000	EA	3,070.78	0.00	0.00	767.70	1,129.28	4,967.76
Delivery - Cottonwood Trees	48.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68
<i>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</i>								
Gooding's Willows	88.0000	EA	4,309.77	0.00	0.00	1,077.44	1,584.92	6,972.12
Delivery - Gooding's Willow Trees	88.0000	EA	312.42	0.00	0.00	78.10	114.89	505.41
<i>(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)</i>								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>5,193.04</b>	<b>0.00</b>	<b>0.00</b>	<b>1,298.26</b>	<b>1,909.74</b>	<b>8,401.04</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	191.0000	EA	4,590.30	0.00	0.00	1,147.58	1,688.08	7,425.96
Delivery - Shrubs	191.0000	EA	602.74	0.00	0.00	150.69	221.66	975.08
<i>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</i>								
<b>Seeding</b>	<b>0.3183</b>	<b>ACR</b>	<b>749.44</b>	<b>0.00</b>	<b>0.00</b>	<b>187.36</b>	<b>275.61</b>	<b>1,212.41</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								

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 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Hydro-Seeding	0.3183	ACR	749.44	0.00	0.00	187.36	275.61	1,212.41
<b>Watering</b>	<b>1.5915</b>	<b>ACR</b>	<b>3,491.88</b>	<b>0.00</b>	<b>0.00</b>	<b>872.97</b>	<b>1,284.14</b>	<b>5,648.99</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	7.9575	ACR	1,975.30	0.00	0.00	493.83	726.42	3,195.54
(Note: Water 5 times in the contract life.)								
Travel Time	15.9150	EA	1,516.58	0.00	0.00	379.15	557.72	2,453.45
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>60,907.92</b>	<b>0.00</b>	<b>0.00</b>	<b>15,226.98</b>	<b>22,398.89</b>	<b>98,533.79</b>
Total O&M for the First Year Dollars	2.0000	EA	60,907.92	0.00	0.00	15,226.98	22,398.89	98,533.79
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Bank Destabilization (Terrace Lowering)</b>	<b>13.8600</b>	<b>ACR</b>	<b>1,348,913.56</b>	<b>161,118.89</b>	<b>134,265.74</b>	<b>337,228.39</b>	<b>179,934.27</b>	<b>2,161,460.86</b>
<b>(Note: Assume three levels with 1.5' drop between levels. Therefore, weighted average depth of 2.25' from existing grade.)</b>								
<b>Vegetation Removal</b>	<b>11,180.4000</b>	<b>LCY</b>	<b>212,529.57</b>	<b>25,503.55</b>	<b>21,252.96</b>	<b>53,132.39</b>	<b>28,117.66</b>	<b>340,536.14</b>
<b>Clearing</b>	<b>11,180.4000</b>	<b>LCY</b>	<b>50,252.42</b>	<b>6,030.29</b>	<b>5,025.24</b>	<b>12,563.11</b>	<b>6,648.40</b>	<b>80,519.46</b>
Clearing Large Site	11,180.0000	LCY	38,097.26	4,571.67	3,809.73	9,524.32	5,040.27	61,043.25
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	13.8600	ACR	12,155.16	1,458.62	1,215.52	3,038.79	1,608.13	19,476.21
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>12,857.4600</b>	<b>LCY</b>	<b>162,277.15</b>	<b>19,473.26</b>	<b>16,227.72</b>	<b>40,569.29</b>	<b>21,469.27</b>	<b>260,016.68</b>
Load, Haul and Dispose	12,857.0000	LCY	162,277.15	19,473.26	16,227.72	40,569.29	21,469.27	260,016.68
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Excavation, Random</b>	<b>50,311.8000</b>	<b>BCY</b>	<b>203,873.54</b>	<b>24,464.82</b>	<b>20,387.35</b>	<b>50,968.39</b>	<b>26,972.47</b>	<b>326,666.57</b>
Excavation, Random	50,311.8000	BCY	203,873.54	24,464.82	20,387.35	50,968.39	26,972.47	326,666.57
(Note: 150 BCY excavated per hour (75 BCY each Dozer) x 1.15 swell = 175 LCY per hour. Keep Excavation in BCY per hour. Swell occurs in the loading and hauling.)								
<b>Rough Grading</b>	<b>67,082.4000</b>	<b>SY</b>	<b>24,915.21</b>	<b>2,989.83</b>	<b>2,491.52</b>	<b>6,228.80</b>	<b>3,296.28</b>	<b>39,921.65</b>
Rough Grading	67,082.4000	SY	24,915.21	2,989.83	2,491.52	6,228.80	3,296.28	39,921.65
<b>Compaction</b>	<b>22,360.8000</b>	<b>ECY</b>	<b>49,090.96</b>	<b>5,890.92</b>	<b>4,909.10</b>	<b>12,272.74</b>	<b>6,494.73</b>	<b>78,658.44</b>
Compaction	22,360.8000	ECY	49,090.96	5,890.92	4,909.10	12,272.74	6,494.73	78,658.44
<b>Load/Handle Waste Material</b>	<b>57,858.5700</b>	<b>LCY</b>	<b>119,096.39</b>	<b>14,291.57</b>	<b>11,909.64</b>	<b>29,774.10</b>	<b>15,756.45</b>	<b>190,828.15</b>

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Load Waste Material	57,858.5700	LCY	119,096.39	14,291.57	11,909.64	29,774.10	15,756.45	190,828.15
(Note: Controlled by hauling at 175 LCY per hour)								
<b>Haul Waste Material</b>	<b>57,858.5700</b>	<b>LCY</b>	<b>250,352.18</b>	<b>30,042.26</b>	<b>25,035.22</b>	<b>62,588.04</b>	<b>33,121.59</b>	<b>401,139.30</b>
Haul Waste Material	57,858.5700	LCY	250,352.18	30,042.26	25,035.22	62,588.04	33,121.59	401,139.30
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 4 trucks = 175 lcy/hr, which is in sync with the excavation rate of (150 x 1.15 swell = aprox 175 lcy).)								
<b>Revegetation</b>	<b>13.8600</b>	<b>ACR</b>	<b>482,799.57</b>	<b>57,935.95</b>	<b>48,279.96</b>	<b>120,699.89</b>	<b>63,874.38</b>	<b>773,589.75</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>389,189.10</b>	<b>46,702.69</b>	<b>38,918.91</b>	<b>97,297.28</b>	<b>51,489.72</b>	<b>623,597.70</b>
(Note: Coyote Willow is every 9 sf, but only on the top Terrace (or 30% of the total Destabilization area). Goodings Willow Trees 38 trees per acre.)								
Coyote Willows	22,361.0000	EA	295,723.53	35,486.82	29,572.35	73,930.88	39,124.22	473,837.81
Delivery - Coyote Willows	22,361.0000	EA	39,418.45	4,730.21	3,941.84	9,854.61	5,215.06	63,160.18
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	526.6800	EA	50,391.38	6,046.97	5,039.14	12,597.85	6,666.78	80,742.11
Delivery - Gooding's Willow Trees	526.6800	EA	3,655.74	438.69	365.57	913.94	483.65	5,857.60
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>30,926.80</b>	<b>3,711.22</b>	<b>3,092.68</b>	<b>7,731.70</b>	<b>4,091.62</b>	<b>49,554.01</b>
(Note: Shrub planting is for 42 per acre.)								
Shrubs	582.1200	EA	27,335.19	3,280.22	2,733.52	6,833.80	3,616.45	43,799.18
Delivery - Shrubs	582.1200	EA	3,591.61	430.99	359.16	897.90	475.17	5,754.83
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>0.6930</b>	<b>ACR</b>	<b>3,189.34</b>	<b>382.72</b>	<b>318.93</b>	<b>797.34</b>	<b>421.95</b>	<b>5,110.29</b>
(Note: Seeding is only required outside of the terrace area for construction disturbance, seeding is applied at 5% of the terrace area.)								
Hydro-Seeding	0.6930	ACR	3,189.34	382.72	318.93	797.34	421.95	5,110.29
<b>Watering</b>	<b>13.8600</b>	<b>ACR</b>	<b>59,494.32</b>	<b>7,139.32</b>	<b>5,949.43</b>	<b>14,873.58</b>	<b>7,871.10</b>	<b>95,327.75</b>
(Note: Assume a total of 5 water applications)								
Watering Large Open Area	69.3000	ACR	33,654.01	4,038.48	3,365.40	8,413.50	4,452.43	53,923.81
Travel Time	138.6000	EA	25,840.32	3,100.84	2,584.03	6,460.08	3,418.67	41,403.94
(Note: Assumption is that there will be 1hr of travel to project site.)								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>6,256.14</b>	<b>0.00</b>	<b>0.00</b>	<b>1,564.03</b>	<b>2,300.69</b>	<b>10,120.86</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>2,085.38</b>	<b>0.00</b>	<b>0.00</b>	<b>521.34</b>	<b>766.90</b>	<b>3,373.62</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.6930</b>	<b>ACR</b>	<b>2,085.38</b>	<b>0.00</b>	<b>0.00</b>	<b>521.34</b>	<b>766.90</b>	<b>3,373.62</b>
VEG REMOVAL ABOVE GROUND	0.6930	ACR	399.77	0.00	0.00	99.94	147.02	646.74
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	1.3860	ACR	1,685.60	0.00	0.00	421.40	619.88	2,726.88
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>4,170.76</b>	<b>0.00</b>	<b>0.00</b>	<b>1,042.69</b>	<b>1,533.80</b>	<b>6,747.25</b>
Total O&M for the First Year Dollars	2.0000	EA	4,170.76	0.00	0.00	1,042.69	1,533.80	6,747.25
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>High Flow Channel</b>	<b>19.7200</b>	<b>ACR</b>	<b>3,110,546.59</b>	<b>349,476.97</b>	<b>291,230.80</b>	<b>777,636.65</b>	<b>458,200.58</b>	<b>4,987,091.59</b>
<b>High Flow Channel</b>	<b>33,038.5846</b>	<b>LF</b>	<b>3,110,546.59</b>	<b>349,476.97</b>	<b>291,230.80</b>	<b>777,636.65</b>	<b>458,200.58</b>	<b>4,987,091.59</b>
<b>(Note: Assume 10 ft bottom width, 26 ft top width, 4 ft depth and 1V on 2H side slopes.)</b>								
<b>Vegetation Removal</b>	<b>15,907.4667</b>	<b>LCY</b>	<b>302,395.56</b>	<b>36,287.47</b>	<b>30,239.56</b>	<b>75,598.89</b>	<b>40,006.93</b>	<b>484,528.41</b>
<b>Clearing</b>	<b>15,907.4667</b>	<b>LCY</b>	<b>71,499.47</b>	<b>8,579.94</b>	<b>7,149.95</b>	<b>17,874.87</b>	<b>9,459.38</b>	<b>114,563.60</b>
<b>(Note: Channel top width 26ft x channel Length x 6" depth is the assumption for Vegetation clearing to construct high flow channel)</b>								
Clearing Large Site	15,907.0000	LCY	54,205.12	6,504.61	5,420.51	13,551.28	7,171.34	86,852.86
(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)								
VEG REMOVAL ABOVE GROUND	19.7200	ACR	17,294.35	2,075.32	1,729.44	4,323.59	2,288.04	27,710.74
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
<b>Haul Waste</b>	<b>18,293.5867</b>	<b>LCY</b>	<b>230,896.10</b>	<b>27,707.53</b>	<b>23,089.61</b>	<b>57,724.02</b>	<b>30,547.55</b>	<b>369,964.82</b>
<b>(Note: Haul to Waste:)</b>								
Load, Haul and Dispose	18,293.5867	LCY	230,896.10	27,707.53	23,089.61	57,724.02	30,547.55	369,964.82
(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37 lcy/hr. x 2 trucks = 74 lcy/hr.)								
<b>Channel Excavation</b>	<b>88,102.8923</b>	<b>BCY</b>	<b>401,470.47</b>	<b>48,176.46</b>	<b>40,147.05</b>	<b>100,367.62</b>	<b>53,114.54</b>	<b>643,276.13</b>

Project : RGEMP Sandia to Isleta  
 RGEMP Sandia to Isleta

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Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Channel Excavation	88,102.8923	BCY	401,470.47	48,176.46	40,147.05	100,367.62	53,114.54	643,276.13
(Note: Excavation is estimated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr)								
<b>Rough Grading</b>	<b>102,786.7077</b>	<b>SY</b>	<b>117,465.31</b>	<b>14,095.84</b>	<b>11,746.53</b>	<b>29,366.33</b>	<b>15,540.66</b>	<b>188,214.67</b>
Rough Grading	102,786.7077	SY	117,465.31	14,095.84	11,746.53	29,366.33	15,540.66	188,214.67
<b>Compaction</b>	<b>34,262.2359</b>	<b>ECY</b>	<b>101,362.94</b>	<b>12,163.55</b>	<b>10,136.29</b>	<b>25,340.73</b>	<b>13,410.32</b>	<b>162,413.83</b>
Compaction	34,262.0000	ECY	101,362.94	12,163.55	10,136.29	25,340.73	13,410.32	162,413.83
<b>Load/Handle Waste Material</b>	<b>101,318.3262</b>	<b>LCY</b>	<b>141,070.96</b>	<b>16,928.52</b>	<b>14,107.10</b>	<b>35,267.74</b>	<b>18,663.69</b>	<b>226,038.00</b>
Load Waste Material	101,318.3262	LCY	141,070.96	16,928.52	14,107.10	35,267.74	18,663.69	226,038.00
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>Haul Waste Material</b>	<b>101,318.3262</b>	<b>LCY</b>	<b>416,957.62</b>	<b>50,034.91</b>	<b>41,695.76</b>	<b>104,239.40</b>	<b>55,163.49</b>	<b>668,091.19</b>
Haul Waste Material	101,318.3262	LCY	416,957.62	50,034.91	41,695.76	104,239.40	55,163.49	668,091.19
(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)								
<b>Revegetation</b>	<b>33,038.5846</b>	<b>LF</b>	<b>1,431,585.19</b>	<b>171,790.22</b>	<b>143,158.52</b>	<b>357,896.30</b>	<b>189,398.72</b>	<b>2,293,828.95</b>
<b>Tree Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,105,842.76</b>	<b>132,701.13</b>	<b>110,584.28</b>	<b>276,460.69</b>	<b>146,303.00</b>	<b>1,771,891.86</b>
<b>(Note: Cottonwood Tree installed on both sides of the channel every 50 ft. Goodings Willow Tree installed on both sides of the channel every 25 ft. Coyote Willow installed in two rows with 3ft spacing on both sides of the channel.)</b>								
Cottonwood Trees	1,322.0000	EA	165,218.71	19,826.25	16,521.87	41,304.68	21,858.44	264,729.94
Delivery - Cottonwood Trees	1,322.0000	EA	9,176.15	1,101.14	917.61	2,294.04	1,214.00	14,702.94
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Coyote Willows	44,051.0000	EA	582,573.10	69,908.77	58,257.31	145,643.28	77,074.42	933,456.88
Delivery - Coyote Willows	44,051.0000	EA	77,654.04	9,318.48	7,765.40	19,413.51	10,273.63	124,425.07
(Note: HAUL TREES: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 280 trees/cycle x 0.45 cycles/ hr = 126 trees/ hr)								
Gooding's Willows	2,643.0000	EA	252,875.41	30,345.05	25,287.54	63,218.85	33,455.42	405,182.27
Delivery - Gooding's Willow Trees	2,643.0000	EA	18,345.35	2,201.44	1,834.54	4,586.34	2,427.09	29,394.75
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>124,110.00</b>	<b>14,893.20</b>	<b>12,411.00</b>	<b>31,027.50</b>	<b>16,419.75</b>	<b>198,861.46</b>
<b>(Note: Shrub installed on both sides of the channel every 25 ft.)</b>								
Shrubs	2,643.0000	EA	124,110.00	14,893.20	12,411.00	31,027.50	16,419.75	198,861.46

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
Delivery - Shrubs	0.0000	EA	0.00	0.00	0.00	0.00	0.00	0.00
(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)								
<b>Seeding</b>	<b>19.7200</b>	<b>ACR</b>	<b>90,755.93</b>	<b>10,890.71</b>	<b>9,075.59</b>	<b>22,688.98</b>	<b>12,007.01</b>	<b>145,418.22</b>
<b>(Note: As the construction disturbance is expected to be 12 ft on each side of the channel (and the channel is 26 ft wide). Seeding is only required for the construction disturbance area, however the construction disturbance area is approximately the same area as the area of the channel.)</b>								
Hydro-Seeding	19.7200	ACR	90,755.93	10,890.71	9,075.59	22,688.98	12,007.01	145,418.22
<b>Watering</b>	<b>19.7200</b>	<b>ACR</b>	<b>84,648.49</b>	<b>10,157.82</b>	<b>8,464.85</b>	<b>21,162.12</b>	<b>11,199.00</b>	<b>135,632.27</b>
<b>(Note: Assume a total of 5 water applications)</b>								
Watering Large Open Area	98.6000	ACR	47,882.90	5,745.95	4,788.29	11,970.73	6,334.91	76,722.77
Travel Time	197.2000	EA	36,765.59	4,411.87	3,676.56	9,191.40	4,864.09	58,909.50
(Note: Assumption is that there will be 1hr of travel to project site.)								
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>26,228.01</b>	<b>3,147.36</b>	<b>2,622.80</b>	<b>6,557.00</b>	<b>3,469.97</b>	<b>42,025.14</b>
PLUGS	6,902.0000	EA	21,847.89	2,621.75	2,184.79	5,461.97	2,890.48	35,006.88
Delivery - PLUGS	6,902.0000	EA	4,380.12	525.61	438.01	1,095.03	579.49	7,018.26
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>198,238.54</b>	<b>0.00</b>	<b>0.00</b>	<b>49,559.64</b>	<b>72,902.22</b>	<b>320,700.41</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>99,119.27</b>	<b>0.00</b>	<b>0.00</b>	<b>24,779.82</b>	<b>36,451.11</b>	<b>160,350.21</b>
<b>(Note: Per H&amp;H this will be performed once every 5 years. This work will be performed 2 times in the 10years.)</b>								
<b>Channel Excavation</b>	<b>24,474.0000</b>	<b>BCY</b>	<b>73,344.60</b>	<b>0.00</b>	<b>0.00</b>	<b>18,336.15</b>	<b>26,972.48</b>	<b>118,653.22</b>
<b>(Note: Excavation is estimtated at 360 LF per day. Which is approximately 360 lf/8hrs = 45 lf/hr. Then 45 lf x 2.67 BCY = 120 BCY/hr. 33,039' * 10'(wide) * 2' (deep)/27 = 24,473.33 BCY.)</b>								
Channel Excavation	24,474.0000	BCY	73,344.60	0.00	0.00	18,336.15	26,972.48	118,653.22
<b>Load/Handle Waste Material</b>	<b>28,145.1000</b>	<b>LCY</b>	<b>25,774.68</b>	<b>0.00</b>	<b>0.00</b>	<b>6,443.67</b>	<b>9,478.64</b>	<b>41,696.99</b>
Load Waste Material	28,145.1000	LCY	25,774.68	0.00	0.00	6,443.67	9,478.64	41,696.99
(Note: Loading and hauling will be at 120 BCY x 1.15 swell = 138 LCY)								
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>99,119.27</b>	<b>0.00</b>	<b>0.00</b>	<b>24,779.82</b>	<b>36,451.11</b>	<b>160,350.20</b>
Total O&M for the First Year Dollars	1.0000	EA	99,119.27	0.00	0.00	24,779.82	36,451.11	160,350.20
(Note: This will happen once every five years for a total of two times in 10years.)								



Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Wetland (Water Feature)</b>	<b>10.1900</b>	<b>ACR</b>	<b>1,710,848.02</b>	<b>203,001.76</b>	<b>169,168.13</b>	<b>427,712.00</b>	<b>230,857.99</b>	<b>2,741,587.90</b>
<b>(Note: Assume an average 5 ft depth from existing grade. )</b>								
<b>Vegetation Removal</b>	<b>8,219.9333</b>	<b>LCY</b>	<b>156,258.98</b>	<b>18,751.08</b>	<b>15,625.90</b>	<b>39,064.74</b>	<b>20,673.06</b>	<b>250,373.76</b>
<b>(Note: Initial Vegetation removal includes all above ground trees and vegetation (chip on site) and 6" of topsoil organics disposed off-site.)</b>								
<b>Clearing</b>	<b>8,219.9333</b>	<b>LCY</b>	<b>36,947.05</b>	<b>4,433.65</b>	<b>3,694.70</b>	<b>9,236.76</b>	<b>4,888.09</b>	<b>59,200.25</b>
VEG REMOVAL ABOVE GROUND	10.1900	ACR	8,936.58	1,072.39	893.66	2,234.15	1,182.31	14,319.09
Clearing Large Site	8,219.9333	LCY	28,010.46	3,361.26	2,801.05	7,002.62	3,705.78	44,881.16
<b>(Note: Clear 6" of top soil organics, and Grub for roots/organics/large stumps to a depth 18". The only soil that leaves the site is the top 6". Thus 43,560 sf per acre x 0.5 ft /27 = 807 cy x 1.15 swell = 928 LCY for haul off per acre. Production rate for clear and grub is 100 LCY per hour.)</b>								
<b>Haul Waste</b>	<b>9,452.9233</b>	<b>LCY</b>	<b>119,311.93</b>	<b>14,317.43</b>	<b>11,931.19</b>	<b>29,827.98</b>	<b>15,784.97</b>	<b>191,173.50</b>
<b>(Note: Haul to Waste: Avg Haul - 5 miles)</b>								
Load, Haul and Dispose	9,452.9233	LCY	119,311.93	14,317.43	11,931.19	29,827.98	15,784.97	191,173.50
<b>(Note: Haul to Waste: Avg Haul - 5 miles (26,400 lf) one way; Avg Speed - 35 mph (2,640 fpm); Haul Time - 26,400 / 2,640 = 10 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 10 min; Dump - 5.0 min; Return - 10 min; Production: 55 min hr / 30 min cycle = 1.83 cycle hr; 20 lcy /cycle x 1.83 cycles/ hr = 36.6 lcy/hr. Use 37lcy/hr. x 2 trucks = 74 lcy/hr.)</b>								
<b>Excavation, Random</b>	<b>82,199.3333</b>	<b>BCY</b>	<b>403,666.27</b>	<b>48,439.95</b>	<b>40,366.63</b>	<b>100,916.57</b>	<b>53,405.05</b>	<b>646,794.47</b>
Excavation, Random	82,199.3333	CY	403,666.27	48,439.95	40,366.63	100,916.57	53,405.05	646,794.47
<b>Rough Grading</b>	<b>49,319.6000</b>	<b>SY</b>	<b>24,423.86</b>	<b>2,930.86</b>	<b>2,442.39</b>	<b>6,105.97</b>	<b>3,231.28</b>	<b>39,134.35</b>
Rough Grading	49,319.6000	SY	24,423.86	2,930.86	2,442.39	6,105.97	3,231.28	39,134.35
<b>Compaction</b>	<b>16,439.8667</b>	<b>ECY</b>	<b>24,443.52</b>	<b>2,933.22</b>	<b>2,444.35</b>	<b>6,110.88</b>	<b>3,233.88</b>	<b>39,165.86</b>
Compaction	16,439.8667	ECY	24,443.52	2,933.22	2,444.35	6,110.88	3,233.88	39,165.86
<b>Load/Handle Waste Material</b>	<b>94,529.2333</b>	<b>LCY</b>	<b>131,618.14</b>	<b>15,794.18</b>	<b>13,161.81</b>	<b>32,904.54</b>	<b>17,413.08</b>	<b>210,891.75</b>
Load Waste Material	94,529.2333	LCY	131,618.14	15,794.18	13,161.81	32,904.54	17,413.08	210,891.75
<b>(Note: 138 lcy per hour to match the excavation rate)</b>								
<b>Haul Waste Material</b>	<b>94,529.2333</b>	<b>LCY</b>	<b>389,018.31</b>	<b>46,682.20</b>	<b>38,901.83</b>	<b>97,254.58</b>	<b>51,467.12</b>	<b>623,324.04</b>
<b>(Note: Haul to Waste: Avg Haul - 1 mile dumped on side of Levee as directed, no material disposal off-site.)</b>								
Haul Waste Material	94,529.2333	LCY	389,018.31	46,682.20	38,901.83	97,254.58	51,467.12	623,324.04
<b>(Note: Haul to Waste site: Avg Haul - 1 miles (5,280 lf) one way; Avg Speed - 7 mph (616 fpm); Haul Time - 5,280 lf / 616 fpm = 9 min one way. Thus, Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 9 min; Dump - 5.0 min; Return - 9 min; Production: 55 min hr / 28 min cycle = 1.96, Which can be rounded to 2 cycles per hour per truck. Then cycle hr; 22 lcy /cycle x 2 cycles/ hr = 44 lcy/hr per truck. Use 44 lcy/hr per truck. x 3 trucks = 132 lcy/hr, which is in sync with the excavation rate of (120 x 1.15 swell = aprox 138 lcy).)</b>								
<b>Revegetation</b>	<b>10.1900</b>	<b>ACR</b>	<b>562,252.24</b>	<b>67,470.27</b>	<b>56,225.22</b>	<b>140,563.06</b>	<b>74,385.97</b>	<b>900,896.76</b>
<b>(Note: There is No Watering for this feature per Environmental guidance.)</b>								

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>Plugs</b>	<b>1.0000</b>	<b>LS</b>	<b>562,252.24</b>	<b>67,470.27</b>	<b>56,225.22</b>	<b>140,563.06</b>	<b>74,385.97</b>	<b>900,896.76</b>
<b>(Note: 1000 Plugs per acre)</b>								
PLUGS	147,958.8000	EA	468,355.27	56,202.63	46,835.53	117,088.82	61,963.40	750,445.64
Delivery - PLUGS	147,958.8000	EA	93,896.97	11,267.64	9,389.70	23,474.24	12,422.57	150,451.12
(Note: HAUL PLUGS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 800 PLUGS/cycle x 0.45 cycles/ hr = 350 PLUGS/ hr)								
<b>O&amp;M Cost</b>	<b>1.0000</b>	<b>EA</b>	<b>19,166.70</b>	<b>0.00</b>	<b>0.00</b>	<b>4,791.67</b>	<b>7,048.55</b>	<b>31,006.92</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
<b>O&amp;M (1st Year)</b>	<b>1.0000</b>	<b>EA</b>	<b>6,388.90</b>	<b>0.00</b>	<b>0.00</b>	<b>1,597.22</b>	<b>2,349.52</b>	<b>10,335.64</b>
<b>Treat-Retreat-Reveg</b>	<b>0.5095</b>	<b>ACR</b>	<b>6,388.90</b>	<b>0.00</b>	<b>0.00</b>	<b>1,597.22</b>	<b>2,349.52</b>	<b>10,335.64</b>
<b>Vegetation Removal (Invasive plant species removal)</b>	<b>0.5095</b>	<b>ACR</b>	<b>1,533.19</b>	<b>0.00</b>	<b>0.00</b>	<b>383.30</b>	<b>563.83</b>	<b>2,480.31</b>
VEG REMOVAL ABOVE GROUND	0.5095	ACR	293.92	0.00	0.00	73.48	108.09	475.49
(Note: Includes labor and Equipment for above ground vegetation removal; including chainsaw of existing trees and brush, on-site chipping of material, at a rate of 4 hours per acre.)								
Exotic Species Removal Herbicide Treatment	1.0190	ACR	1,239.27	0.00	0.00	309.82	455.74	2,004.83
(Note: Quantity is times 2, because of the Treat and Retreat applications.)								
<b>Revegetation</b>	<b>0.4490</b>	<b>ACR</b>	<b>4,855.71</b>	<b>0.00</b>	<b>0.00</b>	<b>1,213.93</b>	<b>1,785.69</b>	<b>7,855.32</b>
<b>Tree Plantings</b>	<b>0.4490</b>	<b>ACR</b>	<b>2,190.94</b>	<b>0.00</b>	<b>0.00</b>	<b>547.74</b>	<b>805.72</b>	<b>3,544.40</b>
<b>(Note: Assume 30 cottonwood trees and 55 Goodings willow trees - per acre.)</b>								
Cottonwood Trees	13.0000	EA	831.67	0.00	0.00	207.92	305.85	1,345.43
Delivery - Cottonwood Trees	13.0000	EA	46.15	0.00	0.00	11.54	16.97	74.66
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
Gooding's Willows	25.0000	EA	1,224.37	0.00	0.00	306.09	450.26	1,980.72
Delivery - Gooding's Willow Trees	25.0000	EA	88.75	0.00	0.00	22.19	32.64	143.58
(Note: HAUL TREES: Avg Haul - 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 4.0 min; Haul - 51.5 min; Unload - 5.0 min; Return - 51.5 min; Production: 55 min hr / 113 min cycle = 0.487 cycle hr; 65 trees/cycle x 0.487 cycles/ hr = 32 trees/ hr)								
<b>Shrub Plantings</b>	<b>1.0000</b>	<b>LS</b>	<b>1,468.19</b>	<b>0.00</b>	<b>0.00</b>	<b>367.05</b>	<b>539.93</b>	<b>2,375.16</b>
<b>(Note: Assume 120 shrubs per acre.)</b>								
Shrubs	54.0000	EA	1,297.78	0.00	0.00	324.45	477.26	2,099.49
Delivery - Shrubs	54.0000	EA	170.41	0.00	0.00	42.60	62.67	275.68

Description	Quantity	UOM	ContractCost	MiscOwner	SIOH	Contingency	Escalation	ProjectCost
<b>(Note: HAUL SHRUBS: 30 miles (158,400 lf) one way; Avg Speed - 35 mph (3,080 fpm); Haul Time - 158,400 / 3,080 = 51.5 min; Cycle Time: Spot - 1 min; Load - 9 min; Haul - 51.5 min; Unload - 10.0 min; Return - 51.5 min; Production: 55 min hr / 123 min cycle = 0.45 cycle hr; 80 SHRUBS/cycle x 0.45 cycles/ hr = 36 SHRUBS/ hr)</b>								
<b>Seeding</b>	<b>0.0898</b>	<b>ACR</b>	<b>211.43</b>	<b>0.00</b>	<b>0.00</b>	<b>52.86</b>	<b>77.76</b>	<b>342.05</b>
<b>(Note: Per Environmental Section only 20% of the Treat/Retreat/Reveg site is to receive seeding application)</b>								
Hydro-Seeding	0.0898	ACR	211.43	0.00	0.00	52.86	77.76	342.05
<b>Watering</b>	<b>0.4490</b>	<b>ACR</b>	<b>985.14</b>	<b>0.00</b>	<b>0.00</b>	<b>246.29</b>	<b>362.29</b>	<b>1,593.71</b>
<b>(Note: Assume a total of 5 water applications (only the shrubs and seeding is to be watered))</b>								
Watering	2.2450	ACR	557.28	0.00	0.00	139.32	204.94	901.54
(Note: Water 5 times in the contract life.)								
Travel Time	4.4900	EA	427.86	0.00	0.00	106.97	157.35	692.18
<b>O&amp;M (9 years)</b>	<b>1.0000</b>	<b>EA</b>	<b>12,777.80</b>	<b>0.00</b>	<b>0.00</b>	<b>3,194.45</b>	<b>4,699.04</b>	<b>20,671.29</b>
Total O&M for the First Year Dollars	2.0000	EA	12,777.80	0.00	0.00	3,194.45	4,699.04	20,671.29
(Note: This will happen once every three years for a total of three times in 10years.)								
<b>Annual Site Assessment</b>	<b>1.0000</b>	<b>EA</b>	<b>102,000.00</b>	<b>0.00</b>	<b>0.00</b>	<b>25,500.00</b>	<b>37,510.50</b>	<b>165,010.50</b>
<b>(Note: CWCCIS Escalation Calculation is 06 Fish &amp; Wildlife Facilities. Estimate Pricing Level Date: Middle point of Construction Date: 2031Q1 is 1,070.99/2018Q1 is 827.54 = 29.42%. Mid Point of construction was derived by Project award date of 20201Q plus 1 year construction plus 5 years for adaptive Management &amp; Monitoring plus 10 yrs of O&amp;M takes us to year 2036.)</b>								
Annual Site Assessment Cost	10.0000	YR	102,000.00	0.00	0.00	25,500.00	37,510.50	165,010.50
(Note: This cost was provided by the environmental section. The cost totaled \$13,730.08 per year for a total of 10 years =)								