

Practice Average Annual Costs (PAAC)

Based on Typical Scenarios of State Payment Schedules

Scenario Information					Life Span	O&M Factor	Interest Rate	Average Annual Cost
ID	Scenario Name	Unit	Size	Total Cost				
472	Access Control							\$62.27
2	Protection of a designated sensitive area threatened by environ	Acre	10	\$426.38	10	3.0%	2.8%	\$62.27
560	Access Road							\$2,561.72
5	Gravel over Base Course over Geotextile	Foot	500	\$9,629.19	10	15.0%	2.8%	\$2,561.72
309	Agrichemical Handling Facility							\$3,374.31
1	Enclosed building for storage and handling	Square Foot	1,554	\$32,285.15	15	3.0%	2.8%	\$3,634.00
4	Outdoor Liquid Agrichemical Storage with a Roofed Building for	Square Foot	3,600	\$30,902.18	15	3.0%	2.8%	\$3,478.33
5	Concrete Pad For Mixing and Loading	Square Foot	640	\$6,491.67	15	3.0%	2.8%	\$730.70
9	Dry Bulk Fertilizer Storage Under Roof	Square Foot	1,815	\$50,232.92	15	3.0%	2.8%	\$5,654.19
311	Alley Cropping							\$452.39
1	Single Row	Acre	10	\$5,298.07	15	1.0%	2.8%	\$490.39
2	Two or more Rows	Acre	10	\$4,476.90	15	1.0%	2.8%	\$414.38
366	Anaerobic Digester							\$138,095.99
5	Medium Complete Mix 1000-2500 AU	Animal Unit	1,890	\$1,300,882.11	25	5.0%	2.8%	\$138,095.99
316	Animal Mortality Facility							\$3,457.23
4	Animal Mortality Composting Facility	Square Foot	700	\$26,080.56	15	5.0%	2.8%	\$3,457.23
397	Aquaculture Ponds							\$4,808.04
2	Excavated With Harvest Kettle	Acre	1	\$32,923.41	10	3.0%	2.8%	\$4,808.04
396	Aquatic Organism Passage							\$10,570.85
9	Concrete Box Culvert	Cubic Foot	1,440	\$29,777.18	5	3.0%	2.8%	\$7,358.21
10	Bridge	Foot	30	\$20,010.18	5	3.0%	2.8%	\$4,944.70

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29	Multi Plate Full Invert Culvert, Area 124 sqft or Less	Cubic Foot	5,100	\$78,546.81	5	3.0%	2.8%	\$19,409.64
314	Brush Management							\$897.10
1	Mechanical, Hand tools	Acre	20	\$1,342.92	10	1.0%	2.8%	\$169.26
3	Mechanical, Large Shrubs	Acre	20	\$8,186.17	10	1.0%	2.8%	\$1,031.76
4	Mechanical and Chemical, Small Shrubs	Acre	20	\$2,730.40	10	1.0%	2.8%	\$344.13
5	Chemical, Individual Plant Treatment	Acre	40	\$1,400.07	10	1.0%	2.8%	\$176.46
8	Split method event series	Acre	180	\$21,929.05	10	1.0%	2.8%	\$2,763.87
672	Building Envelope Improvement							\$997.35
2	Building Envelope - Wall Insulation	Square Foot	4,500	\$7,913.12	10	1.0%	2.8%	\$997.35
584	Channel Bed Stabilization							\$1,658.73
1	Rock structures	Square Foot	3,500	\$10,502.25	10	5.0%	2.8%	\$1,743.76
2	Wood structures	Square Foot	2,700	\$9,477.99	10	5.0%	2.8%	\$1,573.70
326	Clearing and Snagging							\$1,190.72
1	Clearing and Snagging	Foot	300	\$4,457.80	5	5.0%	2.8%	\$1,190.72
372	Combustion System Improvement							\$1,082.80
2	Electric Motor in-lieu of IC Engine, 12 to 74 HP	Each	1	\$6,521.42	10	5.0%	2.8%	\$1,082.80
317	Composting Facility							\$10,403.79
2	Concrete Bins with Concrete Floor	Square Foot	1,680	\$32,845.07	15	2.0%	2.8%	\$3,368.57
5	Windrow or Static Pile, Concrete Surface	Square Foot	32,670	\$170,038.03	15	2.0%	2.8%	\$17,439.01
327	Conservation Cover							\$2,716.23
1	Introduced Grass and Legumes	Acre	50	\$6,113.41	5	3.0%	2.8%	\$1,510.68
3	Native Grass and forbs	Acre	50	\$15,870.60	5	3.0%	2.8%	\$3,921.77
328	Conservation Crop Rotation							\$511.69
1	Standard Rotation	Acre	200	\$511.69	1	0.0%	2.8%	\$511.69

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332	Contour Buffer Strips							\$115.82
2	Introduced, Cool Season, FI	Acre	1	\$488.48	5	2.0%	2.8%	\$115.82
330	Contour Farming							\$63.06
1	Contour Farming	Acre	30	\$290.45	5	0.0%	2.8%	\$63.06
331	Contour Orchard and Other Perennial Crops							\$106.32
1	Contour Orchards, Vineyards	Acre	10	\$290.45	10	25.0%	2.8%	\$106.32
340	Cover Crop							\$2,871.51
1	One Species	Acre	40	\$2,434.61	1	0.0%	2.8%	\$2,434.61
4	Multiple Species	Acre	40	\$3,308.40	1	0.0%	2.8%	\$3,308.40
342	Critical Area Planting							\$32.90
1	Introduced Seeding, normal tillage	Acre	1	\$225.30	10	3.0%	2.8%	\$32.90
589C	Cross Wind Trap Strips							\$133.12
1	Cross Wind Trap Strips	Acre	1	\$498.37	5	5.0%	2.8%	\$133.12
324	Deep Tillage							\$966.42
1	Deep Tillage	Acre	40	\$966.42	1	0.0%	2.8%	\$966.42
747	Denitrifying Bioreactor							\$1,673.87
1	With Topsoil Cover and 1 Structure	Cubic Yard	200	\$12,304.50	10	2.0%	2.8%	\$1,673.87
362	Diversion							\$191.13
1	Earthen	Foot	500	\$1,373.09	10	2.0%	2.8%	\$186.79
2	Reinforced Concrete Curb With Footer	Foot	50	\$1,436.91	10	2.0%	2.8%	\$195.47
554	Drainage Water Management							\$499.21
1	Drainage Water Management	Acre	50	\$499.21	1	0.0%	2.8%	\$499.21
647	Early Successional Habitat Development/Management							\$552.08
3	Regeneration of mature alder stands.	Acre	1	\$552.08	1	0.0%	2.8%	\$552.08

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4	Regeneration of aspen stands.	Acre	1	\$552.08	1	0.0%	2.8%	\$552.08
374	FARMSTEAD ENERGY IMPROVEMENT							\$453.70
1	Ventilation - Replacement of Conventional Exhaust Fan with Hig	Each	1	\$1,402.72	10	2.0%	2.8%	\$190.82
2	Ventilation - Replacement of Horizontal Air Flow Fan with Efficie	Each	1	\$217.45	10	2.0%	2.8%	\$29.58
3	Ventilation - Replacement of Less Efficient Circulation Fan with	Each	1	\$5,470.77	10	2.0%	2.8%	\$744.23
4	Plate Cooler	Each	1	\$6,817.10	10	2.0%	2.8%	\$927.38
5	Scroll Compressor	Horsepower	5	\$133.12	10	2.0%	2.8%	\$18.11
6	Water Heating - Compressor Heat Recovery	Each	1	\$3,756.18	10	2.0%	2.8%	\$510.98
7	Water Heating - High Efficiency or Tankless Water Heater	Each	1	\$3,054.83	10	2.0%	2.8%	\$415.57
8	Water Heating - Heat Pump Water Heater	Each	1	\$266.34	10	2.0%	2.8%	\$36.23
10	Low Energy Livestock Waterers	Each	1	\$1,026.02	10	2.0%	2.8%	\$139.58
11	Variable Speed Drive	Horsepower	50	\$11,929.63	10	2.0%	2.8%	\$1,622.87
15	Motor Upgrade > 1 and < 10 HP	Horsepower	5	\$899.55	10	2.0%	2.8%	\$122.37
18	Heating (Building)	1,000 BTU/Hour	21	\$532.49	10	2.0%	2.8%	\$72.44
19	Heating - Attic Heat Recovery vents	Each	14	\$2,345.21	10	2.0%	2.8%	\$319.04
39	Heating - Root Zone Heating	Linear Foot	1,600	\$4,118.74	10	2.0%	2.8%	\$560.30
58	Grain Aeration Floor System	Square Foot	573	\$8,056.38	10	2.0%	2.8%	\$1,095.97
592	Feed Management							\$2,722.47
1	Dairy operation- Large or more than 200 AU	Animal Unit	700	\$3,860.29	1	0.0%	2.8%	\$3,860.29
2	Dairy operation - Small or less than 200 AU	Animal Unit	50	\$2,234.08	1	0.0%	2.8%	\$2,234.08
3	Livestock - non-dairy	Animal Unit	1,075	\$2,073.03	1	0.0%	2.8%	\$2,073.03
382	Fence							\$198.88
4	Electric, High Tensile	Foot	1,320	\$2,313.16	20	2.0%	2.8%	\$198.88
386	Field Border							\$18.77

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6	Introduced	Acre	1	\$148.93	10	1.0%	2.8%	\$18.77
393	Filter Strip							\$20.57
7	Native species	Acre	1	\$164.24	10	2.0%	2.8%	\$22.34
8	Introduced species	Acre	1	\$138.16	10	2.0%	2.8%	\$18.79
394	Firebreak							\$913.87
4	Vegetated permanent firebreak	Foot	3,000	\$623.55	5	20.0%	2.8%	\$260.09
5	Constructed, Wide, bladed or disked firebreak	Foot	1,000	\$3,758.35	5	20.0%	2.8%	\$1,567.64
512	Forage and Biomass Planting							\$1,327.36
5	Cool Season	Acre	30	\$6,275.57	5	3.0%	2.8%	\$1,550.75
9	Interseed	Acre	30	\$4,467.53	5	3.0%	2.8%	\$1,103.97
511	Forage Harvest Management							\$330.20
2	Delayed Mowing for Ground Nesting Birds	Acre	30	\$330.20	1	0.0%	2.8%	\$330.20
666	Forest Stand Improvement							\$312.41
2	Timber Stand Improvement, Single Stem Treatment	Acre	10	\$2,759.00	10	0.0%	2.8%	\$320.15
5	Competition Control, Mechanical, Light Equipment	Acre	10	\$1,562.76	10	0.0%	2.8%	\$181.34
8	Thinning for Wildlife and Forest Health	Acre	10	\$5,396.40	10	0.0%	2.8%	\$626.18
10	Marking Only, Uneven Aged Stand, Commercial Harvest	Acre	10	\$1,051.22	10	0.0%	2.8%	\$121.98
655	Forest Trails and Landings							\$552.75
2	Trail and Landing Installation	Foot	2,000	\$2,545.95	5	0.0%	2.8%	\$552.75
410	Grade Stabilization Structure							\$263.22
1	Fabric Reinforced Vegetated Chute	Square Foot	360	\$791.03	15	1.0%	2.8%	\$73.22
2	Concrete Block or Rock Chute	Square Foot	720	\$5,483.55	15	1.0%	2.8%	\$507.55
3	Culvert Outlet Protection, MN TR3	Each	1	\$1,262.25	15	1.0%	2.8%	\$116.83
8	Drop Inlet to Culvert	Each	1	\$3,838.52	15	1.0%	2.8%	\$355.29

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412	Grassed Waterway							\$389.99
1	Waterway DA less than 100 acres	Foot	750	\$1,772.70	10	2.0%	2.8%	\$241.15
2	Waterway DA between 100 and 200 acres	Foot	1,000	\$3,290.59	10	2.0%	2.8%	\$447.64
5	Grassed Waterway with checks less than 200 ac drainage area	Foot	1,000	\$3,537.17	10	2.0%	2.8%	\$481.19
561	Heavy Use Area Protection							\$3,312.25
3	Rock/Gravel on Geotextile	Square Foot	5,000	\$6,110.20	10	15.0%	2.8%	\$1,625.54
6	Concrete Flatwork, 5 inches thick, no wall	Square Foot	5,000	\$18,790.43	10	15.0%	2.8%	\$4,998.95
422	Hedgerow Planting							\$245.49
1	Pollinator Habitat	Foot	800	\$2,360.73	15	5.0%	2.8%	\$312.94
4	Wildlife, Warm Season Grass	Foot	800	\$2,379.96	15	5.0%	2.8%	\$315.49
5	Wildlife machine plant	Foot	800	\$463.21	15	5.0%	2.8%	\$61.40
6	Wildlife Cool Season	Foot	800	\$2,203.77	15	5.0%	2.8%	\$292.13
315	Herbaceous Weed Control							\$437.72
3	Chemical, Spot	Acre	20	\$780.55	5	1.0%	2.8%	\$177.27
7	mechanical and chemical	Acre	10	\$1,285.85	5	1.0%	2.8%	\$292.03
8	split method and event series	Acre	25	\$3,715.63	5	1.0%	2.8%	\$843.85
603	Herbaceous Wind Barriers							\$48.35
2	Perennial species	Foot	1,320	\$195.68	5	3.0%	2.8%	\$48.35
325	High Tunnel System							\$2,682.64
42	Contiguous US Snow	Square Foot	2,160	\$10,856.08	5	3.0%	2.8%	\$2,682.64
595	Integrated Pest Management (IPM)							\$1,341.34
2	Basic IPM Field Crops, greater than 1RC	Acre	40	\$887.53	1	0.0%	2.8%	\$887.53
5	Basic IPM Fruit/Veg, greater than 1RC	Acre	10	\$1,184.29	1	0.0%	2.8%	\$1,184.29
8	Basic IPM Orchard, greater than 1RC	Acre	10	\$1,809.72	1	0.0%	2.8%	\$1,809.72

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13	Risk Prevention IPM, All RCs	Acre	10	\$1,483.81	1	0.0%	2.8%	\$1,483.81
441	Irrigation System, Microirrigation							\$85.28
4	Surface drip irrigation, hoop house	Square Foot	2,880	\$643.36	15	5.0%	2.8%	\$85.28
449	Irrigation Water Management							\$885.11
2	Basic IWM, greater than 30 acres	Acre	125	\$1,526.80	1	0.0%	2.8%	\$1,526.80
19	IWM for seasonal high tunnels or small scale specialty crops	Each	1	\$243.42	1	0.0%	2.8%	\$243.42
527	Karst Sinkhole Treatment							\$578.24
4	Vertical opening, Minor site complexity, low failure consequenc	Each	1	\$4,250.59	10	2.0%	2.8%	\$578.24
670	Lighting System Improvement							\$53.88
1	Lighting - Replace Existing Luminaire With LED Lamp	Each	1	\$23.21	10	1.0%	2.8%	\$2.93
2	Lighting - Replace Existing Lighting Fixture with General or Low	Each	1	\$370.68	10	1.0%	2.8%	\$46.72
3	Lighting - Replace Existing Lighting Fixture with Linear LED	Each	1	\$33.28	10	1.0%	2.8%	\$4.19
4	Lighting - Replace Existing Lighting Fixture with High Bay LED	Each	1	\$650.60	10	1.0%	2.8%	\$82.00
5	Lighting - Replace Existing Lighting Fixture with High Intensity LE	Each	1	\$1,100.83	10	1.0%	2.8%	\$138.75
6	Lighting - Linear Fluorescent	Each	1	\$345.98	10	1.0%	2.8%	\$43.61
7	Lighting - Replace Existing Lighting Fixture with Pulse-Start Meta	Each	1	\$467.82	10	1.0%	2.8%	\$58.96
468	Lined Waterway or Outlet							\$1,761.42
2	Rock Lined - D50 <= 6'	Square Foot	4,500	\$9,648.48	15	10.0%	2.8%	\$1,761.42
516	Livestock Pipeline							\$278.28
1	Surface HDPE or PVC Pipe	Foot	2,640	\$2,796.57	20	2.0%	2.8%	\$240.45
3	Buried HDPE or PVC Pipe (Year Round Use), 3 to 4 feet deep	Foot	1,000	\$3,676.45	20	2.0%	2.8%	\$316.10
457	Mine Shaft and Adit Closing							\$965.98
1	Horizontal Shaft, Bat Grating	Square Foot	75	\$10,176.05	15	0.0%	2.8%	\$840.13
4	Vertical Shaft	Cubic Yard	18	\$13,224.66	15	0.0%	2.8%	\$1,091.82

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484	Mulching							\$814.37
3	Erosion Control Blanket	Square Foot	5,000	\$852.08	1	0.0%	2.8%	\$852.08
46	Natural Material, Partial Coverage	Acre	10	\$776.66	1	0.0%	2.8%	\$776.66
590	Nutrient Management							\$1,593.57
1	Basic NM System, organic or non-organic	Acre	40	\$518.96	1	0.0%	2.8%	\$518.96
4	Enhanced NM System	Acre	40	\$2,668.18	1	0.0%	2.8%	\$2,668.18
500	Obstruction Removal							\$856.34
2	Removal and Disposal of Brush and Trees > 6 inch Diameter	Acre	2	\$5,157.52	10	5.0%	2.8%	\$856.34
319	On-Farm Secondary Containment Facility							\$1,274.33
1	Double Wall Tanks, Combined Greater Than 3300 Gal, With Fuel	Gallon	4,000	\$12,677.34	15	5.0%	2.8%	\$1,680.50
4	Concrete Containment Wall	Cubic Yard	19	\$12,287.27	15	5.0%	2.8%	\$1,628.79
6	Fueling Pad for existing fuel storage 3,300 gallons or less	Square Foot	256	\$5,551.18	15	5.0%	2.8%	\$735.86
7	Double Wall Tanks, Combined 3300 Gal or Less, With Fueling Pa	Gallon	1,100	\$7,937.34	15	5.0%	2.8%	\$1,052.17
582	Open Channel							\$1,000.25
1	Two stage ditch	Foot	1,000	\$9,752.87	15	2.0%	2.8%	\$1,000.25
378	Pond							\$1,259.11
5	Embankment with Pipe	Cubic Yard	2,500	\$16,571.77	20	1.0%	2.8%	\$1,259.11
521D	Pond Sealing or Lining, Compacted Clay Treatment							\$2,455.77
4	Soil Liner, on-site material with Testing	Cubic Yard	5,322	\$21,817.51	15	3.0%	2.8%	\$2,455.77
521A	Pond Sealing or Lining, Flexible Membrane							\$5,363.81
2	Flexible Membrane with geotextile and liner venting	Square Yard	2,850	\$55,885.29	20	3.0%	2.8%	\$5,363.81
338	Prescribed Burning							\$1,352.00
2	Level to Moderate Terrain, Herbaceous Fuel Non-Volatile	Acre	20	\$1,352.00	1	0.0%	2.8%	\$1,352.00
528	Prescribed Grazing							\$1,053.96

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3	Pasture Standard	Acre	40	\$1,053.96	1	0.0%	2.8%	\$1,053.96
533	Pumping Plant							\$851.92
1	Wastewater pump and controller system	Each	1	\$6,113.54	15	2.0%	2.8%	\$627.00
2	313 Subsurface Drain Pump with sump chamber	Horsepower	1	\$4,944.02	15	2.0%	2.8%	\$507.06
3	Milkhouse or Silage waste Pump	Horsepower	1	\$1,256.02	15	2.0%	2.8%	\$128.82
5	Pump, Manure, Solid Piston	Each	1	\$28,009.64	15	2.0%	2.8%	\$2,872.65
10	Electric-Powered Pump less than or equal to 3 HP with Pressure	Horsepower	1	\$1,829.14	15	2.0%	2.8%	\$187.60
11	Electric-Powered Pump between 3 and 10 HP	Horsepower	6	\$4,009.32	15	2.0%	2.8%	\$411.19
14	Variable Frequency Drive	Horsepower	50	\$11,984.78	15	2.0%	2.8%	\$1,229.15
329	Residue and Tillage Management, No-Till							\$812.32
1	No-Till, Strip-Till	Acre	40	\$812.32	1	0.0%	2.8%	\$812.32
345	Residue and Tillage Management, Reduced Till							\$1,127.09
1	Mulch till	Acre	40	\$670.85	1	0.0%	2.8%	\$670.85
2	Ridge Till	Acre	40	\$1,583.33	1	0.0%	2.8%	\$1,583.33
643	Restoration and Management of Rare and Declining Habitats							\$533.01
1	Restoring and Managing unique or dimishing native terrestrial a	Acre	5	\$533.01	1	0.0%	2.8%	\$533.01
391	Riparian Forest Buffer							\$766.45
3	Bare Root, hand planted	Acre	3	\$8,280.60	15	1.0%	2.8%	\$766.45
390	Riparian Herbaceous Cover							\$68.12
5	Warm Season Mix	Acre	0	\$336.20	5	1.0%	2.8%	\$76.35
6	Cool Season Mix	Acre	0	\$263.71	5	1.0%	2.8%	\$59.89
654	Road/Trail/Landing Closure and Treatment							\$246.10
1	Road or Trail Abandonment or Rehabilitation, Light	Foot	500	\$1,482.22	10	5.0%	2.8%	\$246.10
558	Roof Runoff Structure							\$162.92

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2	Existing fascia, Small 4 to 6 inch gutter, Heavy duty hangers stra	Foot	100	\$1,095.40	15	1.0%	2.8%	\$101.39
6	Concrete Curb	Foot	200	\$2,424.93	15	1.0%	2.8%	\$224.45
367	Roofs and Covers							\$2,981.68
3	Roof Structure, 30 ft to 60 ft Wide	Square Foot	2,400	\$20,705.09	10	1.0%	2.8%	\$2,609.61
14	Roof Structure, 30 ft to 60 ft Wide, High Snow Load	Square Foot	2,400	\$26,609.20	10	1.0%	2.8%	\$3,353.75
350	Sediment Basin							\$232.41
2	Embankment earthen basin with pipe	Cubic Yard	500	\$2,421.44	20	3.0%	2.8%	\$232.41
572	Spoil Spreading							\$2,652.97
1	Spoil Spreading, wide area	Cubic Yard	1,000	\$2,652.97	1	0.0%	2.8%	\$2,652.97
574	Spring Development							\$252.99
3	Spring Development, Horizontal Pipe with Collection Box	Each	1	\$3,834.40	20	0.0%	2.8%	\$252.99
442	Sprinkler System							\$1,882.13
4	Renovation of Existing Sprinkler System	Foot	1,300	\$18,351.55	15	2.0%	2.8%	\$1,882.13
570	Stormwater Runoff Control							\$460.08
1	Erosion Control Measure	Foot	300	\$460.08	1	0.0%	2.8%	\$460.08
578	Stream Crossing							\$804.11
1	Rock Surfaced Stream Crossing	Square Foot	2,000	\$3,722.07	10	10.0%	2.8%	\$804.11
395	Stream Habitat Improvement and Management							\$1,882.77
2	Instream wood placement	Each	20	\$7,422.57	5	2.0%	2.8%	\$1,759.96
5	Instream rock placement, each	Each	20	\$8,458.41	5	2.0%	2.8%	\$2,005.57
580	Streambank and Shoreline Protection							\$2,113.41
2	Bioengineered	Foot	500	\$10,807.26	20	10.0%	2.8%	\$1,793.78
4	Riprap on bank 4 ft to 7 ft high measure from bank top to toe of	Foot	500	\$14,658.74	20	10.0%	2.8%	\$2,433.04
585	Stripcropping							\$84.72

Scenario Information					Life Span	O&M Factor	Interest Rate	Average Annual Cost
ID	Scenario Name	Unit	Size	Total Cost				
1	Stripcropping	Acre	30	\$373.02	5	1.0%	2.8%	\$84.72
587	Structure for Water Control							\$236.40
3	Inline Flashboard Riser, Commercial	Diameter Inch Foot	1,000	\$5,064.81	20	1.0%	2.8%	\$384.82
5	Culvert less than 30 inches CMP	Diameter Inch Foot	960	\$2,291.08	20	1.0%	2.8%	\$174.07
13	Drainage Water Management Structure	Each	1	\$1,978.29	20	1.0%	2.8%	\$150.31
606	Subsurface Drain							\$1,618.75
1	Corrugated Plastic Pipe (CPP), Single-Wall, less than or equal to	Linear Foot	2,000	\$7,884.27	20	3.0%	2.8%	\$756.72
6	Waste Storage Facility Perimeter Drain, 9 or less feet deep	Foot	920	\$21,029.17	20	3.0%	2.8%	\$2,018.36
8	Waste Storage Facility Underdrain	Foot	1,000	\$14,081.30	20	3.0%	2.8%	\$1,351.51
9	Secondary Main Retrofit for DWM	Foot	3,135	\$24,467.80	20	3.0%	2.8%	\$2,348.39
575	Trails and Walkways							\$909.37
3	Gravel over Geotextile	Square Foot	8,400	\$6,860.09	15	5.0%	2.8%	\$909.37
612	Tree/Shrub Establishment							\$426.88
1	Individual tree, hand planting	Each	6,000	\$3,059.64	15	0.0%	2.8%	\$252.60
5	Medium Density, Conifer	Each	18,000	\$8,056.47	15	0.0%	2.8%	\$665.14
8	Hardwood mechanical planting, bare root, with tree protectors	Each	850	\$4,502.49	15	0.0%	2.8%	\$371.72
12	Shrub Planting	Acre	10	\$5,063.67	15	0.0%	2.8%	\$418.05
490	Tree/Shrub Site Preparation							\$4,127.85
3	Chemical, Ground Application	Acre	40	\$7,894.34	1	0.0%	2.8%	\$7,894.34
7	Windbreak, Site Preparation	Acre	1	\$361.35	1	0.0%	2.8%	\$361.35
620	Underground Outlet							\$399.44
6	8 -12 inch pipe conduit	Foot	500	\$7,027.99	20	3.0%	2.8%	\$674.54
11	Intake Riser and short offset outlet	Each	3	\$1,295.44	20	3.0%	2.8%	\$124.34
645	Upland Wildlife Habitat Management							\$451.51

Scenario Information					Life Span	O&M Factor	Interest Rate	Average Annual Cost
ID	Scenario Name	Unit	Size	Total Cost				
1	Inventory of Land for Feral Swine	Acre	20	\$451.51	1	0.0%	2.8%	\$451.51
635	Vegetated Treatment Area							\$379.41
1	VTA downslope from collection point, Fill Present on Site	Square Foot	9,000	\$2,598.06	10	3.0%	2.8%	\$379.41
601	Vegetative Barrier							\$21.96
1	3 to 5 ft wide	Foot	1,000	\$88.87	5	3.0%	2.8%	\$21.96
360	Waste Facility Closure							\$2,082.03
3	Closure of Liquid Waste Impoundment w/concrete linercompl	Cubic Foot	71,371	\$15,529.23	15	3.0%	2.8%	\$1,747.96
4	Closure of Liquid Waste Impoundment w/concrete linercompl	Cubic Foot	71,371	\$21,465.06	15	3.0%	2.8%	\$2,416.10
632	Waste Separation Facility							\$12,170.01
1	One Mechanical Separator	Each	1	\$87,844.12	15	2.0%	2.8%	\$9,009.25
3	Concrete Basin	Cubic Foot	1,800	\$15,056.57	15	2.0%	2.8%	\$1,544.19
4	Concrete Basin, Multiple Cells, Gravity	Cubic Foot	28,787	\$121,619.30	15	2.0%	2.8%	\$12,473.21
5	Concrete Sand Settling Lane	Square Foot	3,200	\$44,808.65	15	2.0%	2.8%	\$4,595.55
7	Mechanical system	Each	1	\$323,986.37	15	2.0%	2.8%	\$33,227.87
313	Waste Storage Facility							\$11,083.07
1	Earthen Storage Facility, In ground, less than 50K ft3 Storage	Cubic Foot	25,000	\$8,783.91	15	2.0%	2.8%	\$900.87
3	Earthen Storage Facility, Above Ground, Embankment	Cubic Foot	121,200	\$148,717.35	15	2.0%	2.8%	\$15,252.37
5	Steel or Concrete storage facility 25K ft3 through 100K ft3	Cubic Foot	73,952	\$199,681.35	15	2.0%	2.8%	\$20,479.22
13	Dry Stack, Reinforced concrete floor, Reinforced concrete wall	Square Foot	4,000	\$46,141.32	15	2.0%	2.8%	\$4,732.23
19	Concrete Storage Tank, Buried, greater than or equal to 50K an	Cubic Foot	62,000	\$88,107.83	15	2.0%	2.8%	\$9,036.29
25	Concrete Lined Earthen Storage Facility, Reinforced Concrete Li	Cubic Foot	168,302	\$156,957.06	15	2.0%	2.8%	\$16,097.43
634	Waste Transfer							\$4,029.29
2	Medium transfer catch basin, more than 4,309 gallons and less	Gallon	11,490	\$40,624.68	15	2.0%	2.8%	\$4,166.45
3	Large transfer catch basin, 23,938 gallons or more	Gallon	23,938	\$45,096.80	15	2.0%	2.8%	\$4,625.10

Scenario Information					Life Span	O&M Factor	Interest Rate	Average Annual Cost
ID	Scenario Name	Unit	Size	Total Cost				
4	Wastewater Collection Basin	Gallon	881	\$10,126.62	15	2.0%	2.8%	\$1,038.58
5	Leachate collection system	Each	1	\$31,786.64	15	2.0%	2.8%	\$3,260.02
6	Milkhouse transfer system	Gallon	3,590	\$15,296.70	15	2.0%	2.8%	\$1,568.82
7	Concrete Channel/Scrape Alley	Square Foot	1,000	\$11,674.27	15	2.0%	2.8%	\$1,197.31
8	Concrete Channel/scrape alley with push-off wall at pond and s	Square Foot	1,000	\$17,285.02	15	2.0%	2.8%	\$1,772.74
9	Concrete channel/scrape alley with small catch basin then throu	Square Foot	1,000	\$31,395.59	15	2.0%	2.8%	\$3,219.92
10	Hopper inlet with gravity pipeline to waste storage facility	Each	1	\$9,143.25	15	2.0%	2.8%	\$937.73
11	Large Pipe Only, 18 inch diameter or larger	Foot	150	\$5,731.04	15	2.0%	2.8%	\$587.77
12	Medium Pipe Only, between 6 and 18 inch diameter	Foot	300	\$10,739.84	15	2.0%	2.8%	\$1,101.47
13	Small Pipe Only, 6 inch diameter or smaller	Foot	300	\$6,490.85	15	2.0%	2.8%	\$665.70
15	Concrete lined basin, sloped sides	Gallon	116,526	\$29,468.98	15	2.0%	2.8%	\$3,022.32
18	Conveyor belt system solid waste to a storage facility	Foot	300	\$20,654.31	15	2.0%	2.8%	\$2,118.30
20	Manure conveyance with a separator system	Each	1	\$162,076.72	15	2.0%	2.8%	\$16,622.50
21	Manure elevator with reception pits	Each	1	\$108,199.10	15	2.0%	2.8%	\$11,096.84
22	Pull Plug Transfer	Each	1	\$8,778.97	15	2.0%	2.8%	\$900.37
23	Flush Flume-Transfer and solid manure auger transfer	Foot	80	\$142,603.08	15	2.0%	2.8%	\$14,625.30
629	Waste Treatment							\$6,219.36
19	Milkhouse Wastewater Filter Mound	Square Foot	4,000	\$42,587.53	10	3.0%	2.8%	\$6,219.36
638	Water and Sediment Control Basin							\$709.60
3	Berm between 4 feet and 6 feet tall, grassed	Foot	600	\$4,859.05	10	3.0%	2.8%	\$709.60
642	Water Well							\$516.56
3	Typical (75 ft and deeper)	Foot	175	\$6,798.68	20	1.0%	2.8%	\$516.56
614	Watering Facility							\$24.40
2	Seasonal Tank >76 - 250 gallons	Gallon	150	\$258.22	20	1.0%	2.8%	\$19.62

Scenario Information					Life Span	O&M Factor	Interest Rate	Average Annual Cost
ID	Scenario Name	Unit	Size	Total Cost				
6	Permanent Tank >250-500 Gallons	Gallon	390	\$384.09	20	1.0%	2.8%	\$29.18
351	Well Decommissioning							\$103.77
3	Drilled Well Sealed with Bentonite	Each	1	\$1,572.73	20	0.0%	2.8%	\$103.77
658	Wetland Creation							\$270.76
2	development of shallow water area for wildlife	Acre	1	\$2,925.29	15	1.0%	2.8%	\$270.76
659	Wetland Enhancement							\$1,631.70
8	Excavation	Cubic Yard	8,067	\$17,628.71	15	1.0%	2.8%	\$1,631.70
657	Wetland Restoration							\$91.37
6	Tile Break	Each	1	\$576.21	15	1.0%	2.8%	\$53.33
7	Ditch Plug	Each	1	\$587.31	15	1.0%	2.8%	\$54.36
8	Embankment	Cubic Yard	250	\$1,797.82	15	1.0%	2.8%	\$166.41
644	Wetland Wildlife Habitat Management							\$704.78
3	Wild Rice Seeding	Acre	1	\$704.78	1	0.0%	2.8%	\$704.78
380	Windbreak/Shelterbelt Establishment							\$60.71
3	conifers, with bud caps, per foot of row planted	Foot	500	\$201.91	15	1.0%	2.8%	\$18.69
5	shrubs and hardwoods with protection, per foot of row planted	Foot	1,000	\$1,109.81	15	1.0%	2.8%	\$102.72
650	Windbreak/Shelterbelt Renovation							\$64.92
2	Thinning	Foot	1,000	\$677.61	15	3.0%	2.8%	\$76.27
4	Tree or Shrub Removal with Chain Saw	Foot	1,000	\$516.30	15	3.0%	2.8%	\$58.11
8	Supplemental Plantings, Bare Root	Acre	1	\$536.30	15	3.0%	2.8%	\$60.37
384	Woody Residue Treatment							\$1,151.75
5	Forest Slash Treatment, Medium and or Heavy	Acre	40	\$9,138.17	10	1.0%	2.8%	\$1,151.75