

**USDA/NRCS/VA FY16 State-wide Average Cost (typical average cost to install conservation practices and associated average annual costs) for Conservation Practices used in Virginia**

Scenario No.	Practice Code	Practice Name	Practice Scenario	Units	Estimated Average Cost/Unit	Typical Units Installed	Estimated Total Installation Cost (rounded)	Assumed Practice Lifespan in Years	Estimated Average Annual Cost (amortized practice cost) <sup>1/</sup>
<b>CAP102 Comprehensive Nutrient Management Plan</b>									
1	102	Comprehensive Nutrient Management Plan	Livestock Operation Less Than 300 AU without Land Application	Number	\$7,733	1	\$7,700	1	\$7,900
	102	Comprehensive Nutrient Management Plan	Non-Dairy Operation Less Than 300 AU with Land Application	Number	\$8,533	1	\$8,500	1	\$8,700
2	102	Comprehensive Nutrient Management Plan	Livestock Operation Greater Than 300 AU without Land Application	Number	\$9,533	1	\$9,500	1	\$9,800
3	102	Comprehensive Nutrient Management Plan	Dairy Operation Less Than 300 AU with Land Application	Number	\$10,667	1	\$10,700	1	\$11,000
4	102	Comprehensive Nutrient Management Plan	Non-Dairy Operation Greater Than or Equal to 300 AU and Less Than 700 AU with Land Application	Number	\$10,933	1	\$10,900	1	\$11,200
5	102	Comprehensive Nutrient Management Plan	Dairy Operation Greater Than or Equal to 300 AU and Less Than 700 AU with Land Application	Number	\$12,133	1	\$12,100	1	\$12,400
6	102	Comprehensive Nutrient Management Plan	Non-Dairy Operation Greater Than or Equal to 700 AU with Land Application	Number	\$13,200	1	\$13,200	1	\$13,600
7	102	Comprehensive Nutrient Management Plan	Dairy Operation Greater Than or Equal to 700 AU with Land Application	Number	\$13,467	1	\$13,500	1	\$13,900
<b>CAP104 Nutrient Management Plan</b>									
1	104	Nutrient Management Plan	Nutrient Management CAP Less Than or Equal to 100 Acres (Not part of a CNMP)	Number	\$2,267	1	\$2,300	1	\$2,400
2	104	Nutrient Management Plan	Nutrient Management CAP 101 - 300 Acres (Not part of a CNMP)	Number	\$3,067	1	\$3,100	1	\$3,200
3	104	Nutrient Management Plan	Nutrient Management CAP Greater Than 300 Acres (Not part of a CNMP)	Number	\$3,867	1	\$3,900	1	\$4,000
4	104	Nutrient Management Plan	Nutrient Management CAP Less Than or Equal to 100 Acres (Element of a CNMP)	Number	\$3,867	1	\$3,900	1	\$4,000
5	104	Nutrient Management Plan	Nutrient Management CAP 101 - 300 Acres (Element of a CNMP)	Number	\$5,467	1	\$5,500	1	\$5,700
6	104	Nutrient Management Plan	Nutrient Management CAP Greater Than 300 Acres (Element of a CNMP)	Number	\$6,533	1	\$6,500	1	\$6,700
<b>CAP106 Forest Management Plan</b>									
1	106	Forest Management Plan	FMP Less Than or Equal to 20 acres	Number	\$1,467	1	\$1,470	1	\$1,510
2	106	Forest Management Plan	FMP 21 to 100 acres	Number	\$1,800	1	\$1,800	1	\$1,850
3	106	Forest Management Plan	FMP 101 to 250 acres	Number	\$3,200	1	\$3,200	1	\$3,290
4	106	Forest Management Plan	FMP 251 to 500 acres	Number	\$4,667	1	\$4,670	1	\$4,800
5	106	Forest Management Plan	FMP 501 to 1,000 acres	Number	\$5,333	1	\$5,330	1	\$5,480
6	106	Forest Management Plan	FMP Greater Than 1,000 acres	Number	\$6,667	1	\$6,670	1	\$6,860
<b>CAP108 Feed Management Plan</b>									
1	108	Feed Management Plan	Feed Management Plan--Dairy Groups	Each	\$320	1	\$320	1	\$330
2	108	Feed Management Plan	Feed Management Plan Less Than 100 Acres	Number	\$1,200	1	\$1,200	1	\$1,230

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3	108	Feed Management Plan	Feed Management Plan	Each	\$2,533	1	\$2,530	1	\$2,600
4	108	Feed Management Plan	Feed Management Plan 100 to Less Than 1,500 Acres	Number	\$3,333	1	\$3,330	1	\$3,420
5	108	Feed Management Plan	Feed Management Plan 1,500 - 5,000 Acres	Number	\$5,467	1	\$5,470	1	\$5,620
6	108	Feed Management Plan	Feed Management Plan Greater Than 5,000 Acres	Number	\$7,000	1	\$7,000	1	\$7,200
<b>CAP110 Grazing Management Plan</b>									
1	110	Grazing Management Plan	Grazing Management Plan Less Than 100 Acres	Number	\$1,200	1	\$1,200	1	\$1,230
2	110	Grazing Management Plan	Grazing Management Plan 100 to Less Than 1,500 Acres	Number	\$3,200	1	\$3,200	1	\$3,290
3	110	Grazing Management Plan	Grazing Management Plan 1,500 - 5,000 Acres	Number	\$5,467	1	\$5,470	1	\$5,620
4	110	Grazing Management Plan	Grazing Management Plan Greater Than 5,000 Acres	Number	\$7,000	1	\$7,000	1	\$7,200
<b>CAP112 Prescribed Burning Management Plan</b>									
1	112	Prescribed Burning Management Plan	Prescribed Burning Plan Less Than or Equal to 20 Acres	Number	\$373	1	\$370	1	\$380
2	112	Prescribed Burning Management Plan	Prescribed Burning Plan 21-100 Acres	Number	\$600	1	\$600	1	\$620
3	112	Prescribed Burning Management Plan	Prescribed Burning Plan 101-250 Acres	Number	\$893	1	\$890	1	\$910
4	112	Prescribed Burning Management Plan	Prescribed Burning Plan 251-500 Acres	Number	\$1,200	1	\$1,200	1	\$1,230
5	112	Prescribed Burning Management Plan	Prescribed Burning Plan 501-1,000 Acres	Number	\$1,467	1	\$1,470	1	\$1,510
6	112	Prescribed Burning Management Plan	Prescribed Burning Plan Greater Than 1,000 Acres	Number	\$1,800	1	\$1,800	1	\$1,850
<b>CAP114 Integrated Pest Management Plan</b>									
1	114	Integrated Pest Management Plan	IPM Management CAP Small-Specialty Less Than 50 Acres	Number	\$1,933	1	\$1,930	1	\$1,980
2	114	Integrated Pest Management Plan	IPM Management CAP Medium 51 - 250 Acres	Number	\$2,533	1	\$2,530	1	\$2,600
3	114	Integrated Pest Management Plan	IPM Management CAP Large - Greater Than 250 Acres	Number	\$3,867	1	\$3,870	1	\$3,980
<b>CAP118 Irrigation Water Management Plan</b>									
1	118	Irrigation Water Management Plan	Irrigation Water Management Conservation Activity Plan CAP	Number	\$3,333	1	\$3,330	1	\$3,420
<b>CAP128 Agricultural Energy Management Plan-Headquarters (AgEMP)</b>									
1	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Small (< 300acres or < 300AUs or ≤ 2 irrigation pumps or < 20,000sq.ft. of heated greenhouse space or a maple syrup enterprise), One Enterprise	Number	\$2,133	1	\$2,130	1	\$2,190
2	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Medium (301acres to 2,500acres or 301AUs to 1,000AUs or 3 to 6 irrigation pumps or 20,001sq.ft. to 40,000sq.ft. of heated greenhouse space), One Enterprise	Number	\$2,667	1	\$2,670	1	\$2,740
3	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Small (< 300acres or < 300AUs or ≤ 2 irrigation pumps or < 20,000sq.ft. of heated greenhouse space), Two Enterprises	Number	\$3,333	1	\$3,330	1	\$3,420

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4	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Large (> 2,500acres or > 1,000AUs or > 7 irrigation pumps or > 40,001sq.ft. of heated greenhouse space), One Enterprise	Number	\$3,467	1	\$3,470	1	\$3,570
5	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Small (< 300acres or < 300AUs or ≤ 2 irrigation pumps or < 20,000sq.ft. of heated greenhouse space), Three Enterprises	Number	\$3,867	1	\$3,870	1	\$3,980
6	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Medium (301acres to 2,500acres or 301AUs to 1,000AUs or 3 to 6 irrigation pumps or 20,001sq.ft. to 40,000sq.ft. of heated greenhouse space), Two Enterprises	Number	\$4,533	1	\$4,530	1	\$4,660
7	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Small (< 300acres or < 300AUs or ≤ 2 irrigation pumps or < 20,000sq.ft. of heated greenhouse space), Four Enterprises	Number	\$4,667	1	\$4,670	1	\$4,800
8	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Medium (301acres to 2,500acres or 301AUs to 1,000AUs or 3 to 6 irrigation pumps or 20,001sq.ft. to 40,000sq.ft. of heated greenhouse space), Three Enterprises	Number	\$5,000	1	\$5,000	1	\$5,140
9	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP 128 Medium (301acres to 2,500acres or 301AUs to 1,000AUs or 3 to 6 irrigation pumps or 20,001sq.ft. to 40,000sq.ft. of heated greenhouse space), Four Enterprises	Number	\$5,867	1	\$5,870	1	\$6,030
10	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Large (> 2,500acres or > 1,000AUs or > 7 irrigation pumps or > 40,001sq.ft. of heated greenhouse space), Two Enterprises	Number	\$6,133	1	\$6,130	1	\$6,300
11	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP Large (> 2,500acres or > 1,000AUs or > 7 irrigation pumps or > 40,001sq.ft. of heated greenhouse space), Three Enterprises	Number	\$6,800	1	\$6,800	1	\$6,990
12	128	Agricultural Energy Management Plan-Headquarters (AgEMP)	AgEMP 128 Large (> 2,500acres or > 1,000AUs or > 7 irrigation pumps or > 40,001sq.ft. of heated greenhouse space), Four Enterprise	Number	\$7,733	1	\$7,730	1	\$7,950
<b>CAP130 Drainage Water Management Plan</b>									
1	130	Drainage Water Management Plan	DWMP - Tile Map Available	Number	\$2,800	1	\$2,800	1	\$2,880
2	130	Drainage Water Management Plan	DWMP - No Tile Map Available	Number	\$3,333	1	\$3,330	1	\$3,420
<b>CAP138 Conservation Plan Supporting Organic Transition</b>									
1	138	Conservation Plan Supporting Organic Transition	Conservation Plan Supporting Organic Transition CAP	Number	\$3,200	1	\$3,200	1	\$3,290
2	138	Conservation Plan Supporting Organic Transition	Conservation Plan Supporting Organic Transition CAP No Local TSP	Number	\$4,933	1	\$4,930	1	\$5,070
<b>CAP146 Pollinator Habitat Enhancement Plan</b>									
1	142	Fish and Wildlife Habitat Management Plan	Fish and Wildlife Habitat Management CAP	Number	\$3,333	1	\$3,330	1	\$3,420

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1	146	Pollinator Habitat Enhancement Plan	Pollinator Habitat Enhancement Plan CAP	Number	\$3,333	1	\$3,330	1	\$3,420
2	146	Pollinator Habitat Enhancement Plan	Pollinator Habitat Enhancement Plan CAP - No Local TSP	Number	\$4,800	1	\$4,800	1	\$4,930
<b>CAP154 IPM Herbicide Resistant Weed Conservation Plan</b>									
1	154	IPM Herbicide Resistant Weed Conservation Plan	IPM Herbicide Resistance Weed Management CAP Small-Specialty Less Than or Equal to 50 Acres	Number	\$2,267	1	\$2,270	1	\$2,330
2	154	IPM Herbicide Resistant Weed Conservation Plan	IPM Herbicide Resistance Weed Management CAP Medium 51 - 250 Acres	Number	\$3,067	1	\$3,070	1	\$3,160
2	154	IPM Herbicide Resistant Weed Conservation Plan	IPM Herbicide Resistance Weed Management CAP Large - Greater Than 250 Acres	Number	\$4,667	1	\$4,670	1	\$4,800
<b>313 Waste Storage Facility</b>									
1	313	Waste Storage Facility	Dry Stack, concrete floor, concrete wall <b>(roof not included, see 367 Roofs &amp; Covers for roof costs)</b>	Sq.Ft.	\$12.80	4,000	\$51,200	15	\$4,230
2	313	Waste Storage Facility	Dry Stack, concrete floor, wood walls, existing columns <b>(roof not included, see 367 Roofs &amp; Covers for roof costs)</b>	Sq.Ft.	\$6.13	4,000	\$24,530	15	\$2,030
3	313	Waste Storage Facility	Dry stack, earthen floor, concrete walls <b>(roof not included, see 367 Roofs &amp; Covers for roof costs)</b>	Sq.Ft.	\$7.87	4,000	\$31,470	15	\$2,600
4	313	Waste Storage Facility	Drystack, earthen floor, wood walls <b>(roof not included, see 367 Roofs &amp; Covers for roof costs)</b>	Sq.Ft.	\$1.87	4,000	\$7,470	15	\$620
5	313	Waste Storage Facility	Drystack,earthen floor,no walls	SqFt	\$0.53	4,000	\$2,130	15	\$180
6	313	Waste Storage Facility	Earthen Storage Facility less than 50K ft <sup>3</sup> Storage	CuFt	\$0.33	25,000	\$8,330	15	\$690
7	313	Waste Storage Facility	Earthen Storage Facility greater than 50K ft <sup>3</sup> Storage	CuFt	\$0.27	168,000	\$44,800	15	\$3,700
8	313	Waste Storage Facility	Tank, less than 5K cu.ft. of waste stored	Cu.Ft.	\$6.40	3,600	\$23,040	15	\$1,900
9	313	Waste Storage Facility	Tank, 5Kcu.ft.to 15Kcu.ft. of waste stored	Cu.Ft.	\$2.40	9,420	\$22,610	15	\$1,870
10	313	Waste Storage Facility	Tank, 15Kcu.ft.to 25Kcu.ft. of waste stored	Cu.Ft.	\$1.87	20,000	\$37,330	15	\$3,080
11	313	Waste Storage Facility	Tank, 25K to 50K cu.ft. of waste stored	Cu.Ft.	\$1.87	28,000	\$52,270	15	\$4,320
12	313	Waste Storage Facility	Tank, 50Kto 75K cu.ft. of waste stored	Cu.Ft.	\$1.47	62,000	\$90,930	15	\$7,510
13	313	Waste Storage Facility	Tank 75Kto 110K cu.ft. of waste stored	Cu.Ft.	\$1.33	92,500	\$123,330	15	\$10,180
14	313	Waste Storage Facility	Tank, 110K cu.ft. of waste stored or greater	Cu.Ft.	\$1.20	152,600	\$183,120	15	\$15,120
<b>314 Brush Management</b>									

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1	314	Brush Management	Chemical - Ground Applied	Acre	\$60	30	\$1,800	10	\$210
2	314	Brush Management	Chemical, Individual Plant Treatment	Acre	\$89	30	\$2,680	10	\$310
3	314	Brush Management	Hack and Squirt (new scenario)	Acre	\$221	5	\$1,110	10	\$130
4	314	Brush Management	Mechanical - bush hog	Acre	\$40	10	\$400	10	\$50
5	314	Brush Management	Mechanical & Chemical	Acre	\$237	30	\$7,120	10	\$830
6	314	Brush Management	Mechanical Chem, Cut Stump	Acre	\$333	20	\$6,670	10	\$770
7	314	Brush Management	Mechanical, Hand tools	Acre	\$167	25	\$4,170	1	\$4,290
8	314	Brush Management	Mechanical, light Infestation (10%-20% of area infested)	Acre	\$120	30	\$3,600	10	\$420
9	314	Brush Management	Mechanical, medium Infestation (> 20% ≤ 50% of area infested)	Acre	\$207	30	\$6,200	10	\$720
<b>315 Herbaceous Weed Control</b>									
1	315	Herbaceous Weed Control	Chemical, ground applied	Acre	\$56	20	\$1,120	1	\$1,150
2	315	Herbaceous Weed Control	Chemical, spot treatment over entire site acreage (20% of each acre assumed to be treated)	Acre	\$20	20	\$400	5	\$90
3	315	Herbaceous Weed Control	Mechanical	Acre	\$49	10	\$490	5	\$110
4	315	Herbaceous Weed Control	Mechanical and Chemical (cut then treat with herbicide to control re-growth)	Acre	\$107	20	\$2,130	5	\$460
<b>316 Animal Mortality Facility</b>									
1	316	Animal Mortality Facility	Incineration, < 400 lbs. Capacity	Each	\$12,400	1	\$12,400	15	\$1,020
2	316	Animal Mortality Facility	Incineration 400 - 600 lbs. Capacity	Each	\$14,133	1	\$14,130	15	\$1,170
3	316	Animal Mortality Facility	Incineration > 600 lbs. Capacity	Each	\$16,000	1	\$16,000	15	\$1,320
4	316	Animal Mortality Facility	Static Pile, Concrete Pad	Sq.Ft.	\$4.93	5,700	\$28,120	15	\$2,320
5	316	Animal Mortality Facility	Freezer (Eastern Shore only)	Cu.Ft.	\$80	65	\$5,200	15	\$430
6	316	Animal Mortality Facility	Static Bin Composter	Sq.Ft.	\$27	945	\$25,440	15	\$2,100
7	316	Animal Mortality Facility	Small rotary Drum (270lbs. to 523lbs. of daily mortality capacity; plus an equal volume of carbon material)	Each	\$30,000	1	\$30,000	15	\$2,480
8	316	Animal Mortality Facility	Small rotary Drum (270lbs. to 523lbs. of daily mortality capacity; plus an equal volume of carbon material) with secondary composting storage area	Each	\$32,600	1	\$32,600	15	\$2,690
9	316	Animal Mortality Facility	Large rotary Drum (> 523lbs. of daily mortality capacity; plus an equal volume of carbon material)	Each	\$52,800	1	\$52,800	15	\$4,360
10	316	Animal Mortality Facility	Large rotary Drum (> 523lbs. of daily mortality capacity; plus an equal volume of carbon material) with secondary composting storage area	Each	\$57,067	1	\$57,070	15	\$4,710

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11	316	Animal Mortality Facility	Composter with storage, nursery pigs, minimum of 60lbs.mortality/day	Lbs./Day	\$167	60	\$10,000	15	\$830
12	316	Animal Mortality Facility	Composter with storage, finisher pigs, minimum of 44lbs.mortality/day	Lbs./Day	\$480	44	\$21,120	15	\$1,740
13	316	Animal Mortality Facility	Composter with storage, sows, minimum of 34lbs.mortality/day	Lbs./Day	\$620	34	\$21,080	15	\$1,740
14	316	Animal Mortality Facility	Composter with storage, chickens, minimum of 141lbs.mortality/day	Lbs./Day	\$113	141	\$15,980	15	\$1,320
15	316	Animal Mortality Facility	Composter with storage, turkey, minimum of 67lbs.mortality/day	Lbs./Day	\$233	67	\$15,630	15	\$1,290
<b>317 Composting Facility</b>									
1	317	Composting Facility	Less than 500 Sq.Ft. concrete floor with wood or concrete walls	Sq.Ft.	\$15	448	\$6,570	15	\$540
2	317	Composting Facility	Greater Than or Equal to 500 Sq.Ft. concrete floor and wooden bin walls	Sq.Ft.	\$7.47	2,240	\$16,730	15	\$1,380
3	317	Composting Facility	500 Sq.Ft. or greater, concrete floor with concrete bin wall	Sq.Ft.	\$11.80	2,240	\$26,430	15	\$2,180
4	317	Composting Facility	Windrow, compacted earth floor	Sq.Ft.	\$0.31	32,670	\$10,020	15	\$830
5	317	Composting Facility	Windrow, concrete floor	Sq.Ft.	\$4.67	6,000	\$28,000	15	\$2,310
<b>324 Deep Tillage</b>									
1	324	Deep Tillage	Less than 36 inches deep	Acre	\$33	40	\$1,330	1	\$1,370
<b>325 High Tunnel System</b>									
1	325	High Tunnel System	Contiguous US (quonset style roof)	Sq.Ft.	\$3.87	2,160	\$8,350	4	\$2,240
2	325	High Tunnel System	Contiguous US Snow (gothic style peaked roof)	Sq.Ft.	\$5.07	2,160	\$10,940	4	\$2,930
<b>327 Conservation Cover</b>									
1	327	Conservation Cover	Introduced Species	Acre	\$193	10	\$1,930	5	\$420
2	327	Conservation Cover	Native Species	Acre	\$307	10	\$3,070	5	\$670
3	327	Conservation Cover	Native Grasses and Forbs	Acre	\$567	10	\$5,670	5	\$1,230
4	327	Conservation Cover	Native Shrubs, NWSGs and Forbs	Acre	\$533	10	\$5,330	5	\$1,160
5	327	Conservation Cover	Conventionally installed Pollinator Habitat	Acre	\$394	1	\$390	5	\$80
6	327	Conservation Cover	Organic Introduced Species	Acre	\$208	2	\$420	5	\$90
7	327	Conservation Cover	Organic Native Mix	Acre	\$400	2	\$800	5	\$170
8	327	Conservation Cover	Organic Native Shrubs, NWSGs and Forbs	Acre	\$599	1	\$600	5	\$130
9	327	Conservation Cover	Organic Pollinator Habitat	Acre	\$424	1	\$420	5	\$90
<b>328 Conservation Crop Rotation</b>									
1	328	Conservation Crop Rotation	Rotate to Perennials (agronomic crops) with foregone income	Acre	\$200	40	\$8,000	1	\$8,220
2	328	Conservation Crop Rotation	Rotate to Perennials (specialty crops) with foregone income	Acre	\$1,000	10	\$10,000	1	\$10,280

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3	328	Conservation Crop Rotation	Improve Rotation Diversity	Acre	\$16	10	\$160	1	\$160
4	328	Conservation Crop Rotation	Rotate to Perennials (organic crops) with foregone income	Acre	\$1,200	5	\$6,000	1	\$6,170
5	328	Conservation Crop Rotation	Continuous No-Fallow (agronomic crops)	Acre	\$60	30	\$1,800	1	\$1,850
<b>329 Residue and Tillage Management, No-Till/Strip-Till</b>									
1	329	Residue and Tillage Management, No-Till/Strip-Till	No-Till/Strip-Till	Acre	\$20	90	\$1,800	1	\$1,850
2	329	Residue and Tillage Management, No-Till/Strip-Till	No-Till/Strip-Till (tobacco)	Acre	\$165	20	\$3,300	1	\$3,390
<b>330 Contour Farming</b>									
1	330	Contour Farming	Farming on the Contour	Acre	\$9	25	\$220	5	\$50
<b>332 Contour Buffer Strips</b>									
1	332	Contour Buffer Strips	Native grass buffer strips	Acre	\$325	10	\$3,250	5	\$710
2	332	Contour Buffer Strips	Introduced grass buffer strips	Acre	\$285	10	\$2,850	5	\$620
3	332	Contour Buffer Strips	Pollinator habitat buffer strips	Acre	\$485	2	\$970	5	\$210
4	332	Contour Buffer Strips	Organic seed buffer strips	Acre	\$310	1	\$310	5	\$70
<b>338 Prescribed Burning</b>									
1	338	Prescribed Burning	Understory Burn	Acre	\$60	40	\$2,400	1	\$2,470
2	338	Prescribed Burning	Site Preparation Burn	Acre	\$60	40	\$2,400	1	\$2,470
3	338	Prescribed Burning	Native Grass Burn	Acre	\$73	15	\$1,100	1	\$1,130
<b>340 Cover Crop</b>									
1	340	Cover Crop	Soil Protection/Nitrogen Scavenging Cover	Acre	\$73	40	\$2,930	1	\$3,010
2	340	Cover Crop	Nitrogen Fixing Cover	Acre	\$87	40	\$3,470	1	\$3,570
3	340	Cover Crop	Multi-species/multi-function Soil Health Cover <b>(min. of 3 species per the 3 functional groups)</b>	Acre	\$113	40	\$4,530	1	\$4,660
4	340	Cover Crop	Organic Weed Suppression/Water Conservation Cover	Acre	\$140	2	\$280	1	\$290
5	340	Cover Crop	Orchard and Vineyard Cover	Acre	\$75	6	\$450	1	\$460
<b>342 Critical Area Planting</b>									
1	342	Critical Area Planting	Bermudagrass-normal tillage <b>(new scenario with farm equipment only)</b>	Acre	\$433	1	\$430	10	\$50
2	342	Critical Area Planting	Grass/legume mixture-normal tillage <b>(farm equipment)</b>	Acre	\$493	1	\$490	10	\$60

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3	342	Critical Area Planting	Organic grass/legume mixture-normal tillage ( <b>farm equipment</b> )	Acre	\$490	1	\$490	10	\$60
4	342	Critical Area Planting	NWSG seeding-normal tillage ( <b>farm equipment</b> )	Acre	\$440	1	\$440	10	\$50
5	342	Critical Area Planting	Grass/legume mix-moderate grading ( <b>dozer work</b> )	Acre	\$1,127	1	\$1,130	10	\$130
6	342	Critical Area Planting	Native seeding-moderate grading ( <b>dozer work</b> )	Acre	\$1,080	1	\$1,080	10	\$130
7	342	Critical Area Planting	Grass/legume mix-heavy grading ( <b>dozer work</b> )	Acre	\$1,687	1	\$1,690	10	\$200
8	342	Critical Area Planting	Native seeding-heavy grading ( <b>dozer work</b> )	Acre	\$1,640	1	\$1,640	10	\$190
9	342	Critical Area Planting	Seeding only ( <b>farm equipment</b> )	Acre	\$380	1	\$380	10	\$40
10	342	Critical Area Planting	Drainage-way planting with NWSGs along adjacent upper slopes, fescue within drainage-way ( <b>farm equipment only</b> )	Acre	\$270	1	\$270	10	\$30
<b>345 Residue and Tillage Mgt, Mulch Till</b>									
1	345	Residue and Tillage Mgt, Mulch Till	Basic mulch-till	Acre	\$13	40	\$530	1	\$540
<b>350 Sediment Basin</b>									
1	350	Sediment Basin	Excavated Basin	Cu.Yd.	\$2.53	1,500	\$3,800	20	\$250
2	350	Sediment Basin	Embankment earthen basin with no pipe	Cu.Yd.	\$2.53	1,500	\$3,800	20	\$250
3	350	Sediment Basin	Embankment earthen basin with pipe	Cu.Yd.	\$5.33	1,500	\$8,000	20	\$530
<b>351 Water Well Decommissioning</b>									
1	351	Water Well Decommissioning	Shallow Well less than 20' deep	LnFt	\$71	15	\$1,060	20	\$70
2	351	Water Well Decommissioning	Shallow Well greater than 20' deep	LnFt	\$53	30	\$1,600	20	\$110
3	351	Water Well Decommissioning	Drilled Well (300ft. assumed typical)	LnFt	\$3.27	300	\$980	20	\$60
<b>355 Well Water Testing</b>									
1	355	Well Water Testing	Basic Water Test (pH, carbonates/bicarbonates, EC, dissolved solids, B, Cl, Ca, Mg, Na, SAR and hardness)	Each	\$50	1	\$50	1	\$50
2	355	Well Water Testing	Specialty Water Test (singular specialized test for a specific pollutant, e.g., nitrates, nitrites, coliforms, pesticides, heavy metals, VOCs, or other less common substances)	Each	\$200	1	\$200	1	\$210
3	355	Well Water Testing	Full Spectrum Test (for a broad range of pollutants, e.g., nitrates, nitrites and coliforms plus pesticides, heavy metals, VOCs, and/or other less common substances)	Each	\$240	1	\$240	1	\$250
<b>356 Dike</b>									
1	356	Dike	Material haul < 1 mile (typical: 1,000Ln.Ft. of 6ft. Height, 8ft. top width and 2ft.H:1ft.V side slopes)	Cu.Yd.	\$6.27	4,500	\$28,200	20	\$1,860

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2	356	Dike	Material haul > 1 mile (typical: 1,000Ln.Ft. of 6ft. Height, 8ft. top width and 2ft.H:1ft.V side slopes)	Cu.Yd.	\$6.93	4,500	\$31,200	20	\$2,060
<b>359 Waste Treatment Lagoon</b>									
1	359	Waste Treatment Lagoon	Earthen Lagoon (208' x 260' top dimensions, 13' depth and 1' freeboard; 3:1 inside and outside side slopes assumed typical)	Cu.Yd.	\$0.21	439,440	\$93,700	15	\$7,740
<b>360 Waste Facility Closure</b>									
1	360	Waste Facility Closure	Pump-out & Demolition of a concrete waste storage structure (60ft. diameter, 10ft. deep pit assumed typical)	Cu.Yd.	\$2.53	3,580	\$9,100	15	\$750
2	360	Waste Facility Closure	Pump-out & Demolition of an earthen waste storage structure (110ft. X 110ft., 8ft. deep embankment or excavated lagoon or pond assumed typical)	Cu.Yd.	\$0.37	63,851	\$23,300	15	\$1,920
3	360	Waste Facility Closure	Liquid Waste Impoundment Conversion to Fresh Water Storage with 0% Liquids and 100% Solids (110ft. X 110ft., 8ft. deep embankment or excavated lagoon or pond assumed typical)	Cu.Yd.	\$0.35	63,851	\$22,100	15	\$1,820
<b>362 Diversion</b>									
1	362	Diversion	Earthen Diversion (1cu.yd. earth moved/linear ft. assumed typical)	LnFt	\$2.40	1,000	\$2,400	10	\$280
<b>366 Anaerobic Digester</b>									
1	366	Anaerobic Digester	Small Plug Flow <1,000 Animal Unit (AU)	AU	\$720	910	\$655,000	25	\$37,000
2	366	Anaerobic Digester	Medium Plug Flow 1,000-2,000 AU	AU	\$507	1,750	\$887,000	25	\$50,000
3	366	Anaerobic Digester	Large Plug Flow >2,000 AU	AU	\$340	3,920	\$1,333,000	25	\$75,000
4	366	Anaerobic Digester	Small Complete Mix <1,000 AU	AU	\$720	1,039	\$748,000	25	\$42,000
5	366	Anaerobic Digester	Medium Complete Mix 1,000-2,500 AU	AU	\$693	1,890	\$1,310,000	25	\$74,000
6	366	Anaerobic Digester	Large Complete Mix >2,500 AU	AU	\$467	3,220	\$1,503,000	25	\$84,000
7	366	Anaerobic Digester	Covered Lagoon/Holding Pond	AU	\$107	1,000	\$107,000	25	\$6,000
<b>367 Roofs and Covers</b>									
1	367	Roofs and Covers	Post Frame Roof, less than 30ft wide	Sq.Ft.	\$9.27	1,000	\$9,300	10	\$1,080
2	367	Roofs and Covers	Post Frame Roof, 30-60ft wide	Sq.Ft.	\$8.53	4,000	\$34,100	10	\$3,960
3	367	Roofs and Covers	Post Frame Roof, Bedrock Foundation	Sq.Ft.	\$9.93	4,000	\$39,700	10	\$4,610
4	367	Roofs and Covers	Steel Frame and Roof	Sq.Ft.	\$7.20	10,000	\$72,000	10	\$8,350
<b>374 Farmstead Energy Improvement</b>									
1	374	Farmstead Energy Improvement	Refrigeration, Plate Cooler	Each	\$4,959	1	\$5,000	10	\$580

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2	374	Farmstead Energy Improvement	Refrigeration, Scroll Compressor	Each	\$1,192	1	\$1,200	10	\$140
3	374	Farmstead Energy Improvement	Controller, Variable Speed Drive without motor > 5 HP	Each	\$790	1	\$790	10	\$90
4	374	Farmstead Energy Improvement	Automatic Controller System (electronic controls)	Each	\$1,300	1	\$1,300	10	\$150
5	374	Farmstead Energy Improvement	Motor Upgrade, large > 100 HP	Each	\$23,400	1	\$23,400	10	\$2,720
6	374	Farmstead Energy Improvement	Motor Upgrade, medium 30 HP	Each	\$4,760	1	\$4,800	10	\$560
7	374	Farmstead Energy Improvement	Motor Upgrade, small > 1 and < 10 HP	Each	\$825	1	\$800	10	\$90
8	374	Farmstead Energy Improvement	Motor Upgrade, very small ≤ 1 HP	Each	\$500	1	\$500	10	\$60
9	374	Farmstead Energy Improvement	Heating - Radiant Brooder for poultry houses	Each	\$475	6	\$2,850	10	\$330
10	374	Farmstead Energy Improvement	Heating - Radiant Tube for poultry houses	Each	\$1,480	6	\$8,880	10	\$1,030
11	374	Farmstead Energy Improvement	Heating - Radiant Quad for poultry houses	Each	\$910	6	\$5,460	10	\$630
12	374	Farmstead Energy Improvement	High Efficiency Heating System (Building)	1K BTU/Hr	\$12.35	750	\$9,300	10	\$1,080
13	374	Farmstead Energy Improvement	Automated Attic Inlets, Heat Recovery vents	Each	\$160	14	\$2,200	10	\$260
14	374	Farmstead Energy Improvement	Grain dryer	Bu./Hr.	\$94	860	\$80,800	10	\$9,380
15	374	Farmstead Energy Improvement	High Efficiency Heat Exchange System for tobacco barns (80%+ for fuel oil & 88%+ for naural gas and propane must be achieved)	1K BTU/Hr	\$12.20	1,000	\$12,200	10	\$1,420
16	374	Farmstead Energy Improvement	Tobacco barn motor retrofit (new motor and longer drive belt to get electric motor outside of barn)	Each	\$825	10	\$8,300	10	\$960
17	374	Farmstead Energy Improvement	Replace inefficient maple syrup evaporator	Sq.Ft.	\$195	5	\$1,000	10	\$120
18	374	Farmstead Energy Improvement	Evaporative Cooling System	Sq.Ft.	\$23	100	\$2,300	10	\$270
<b>378 Pond</b>									
1	378	Pond	Embankment Pond with Drop Inlet Pipe (embankment volume)	Cu.Yds.	\$3.33	3,100	\$10,300	20	\$680
2	378	Pond	Embankment Pond with Hood Inlet Pipe (embankment volume)	Cu.Yds.	\$2.93	3,100	\$9,100	20	\$600
<b>380 Windbreak/Shelterbelt Establishment</b>									
1	380	Windbreak/Shelterbelt Establishment	2-row windbreak, shrubs, machine planted with tubes	Ln.Ft.	\$1.60	500	\$800	15	\$70
2	380	Windbreak/Shelterbelt Establishment	3 or more row windbreak, shrub, machine planted with tubes	Ln.Ft.	\$1.80	500	\$900	15	\$70
3	380	Windbreak/Shelterbelt Establishment	2-row windbreak, trees, machine planted, no tubes	Ln.Ft.	\$0.67	500	\$330	15	\$30
4	380	Windbreak/Shelterbelt Establishment	3 or more tree rows machine planted windbreak, no tubes	Ln.Ft.	\$0.75	500	\$370	15	\$30
<b>381 Silvopasture Establishment</b>									
1	381	Silvopasture Establishment	Commercial <b>pine</b> thinning, establish native grasses	Acre	\$680	10	\$6,800	15	\$560

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2	381	Silvopasture Establishment	Commercial <b>pine</b> thinning, establish introduced grasses	Acre	\$507	10	\$5,070	15	\$420
3	381	Silvopasture Establishment	Establish hardwood trees and native grasses in an open field ( <b>formerly cropped field</b> )	Acre	\$1,218	10	\$12,180	15	\$1,010
4	381	Silvopasture Establishment	Establish conifer trees, introduced grasses and legumes in an open field	Acre	\$490	10	\$4,900	15	\$400
5	381	Silvopasture Establishment	Establish hardwood trees in an existing pasture with adequate forage	Acre	\$445	10	\$4,450	15	\$370
6	381	Silvopasture Establishment	Establish conifer trees in an existing pasture with adequate forage	Acre	\$73	10	\$730	15	\$60
<b>382 Fence</b>									
1	382	Fence	Exclusion, 4-strand high tensile electric (Appalachian region cost estimate includes pro-rated cost of 1 gate and a charger)	Ln.Ft.	\$2.53	1,320	\$3,340	20	\$220
2	382	Fence	Exclusion, mountain site, 4-strand high tensile electric (Appalachian region cost estimate includes pro-rated cost of 1 gate and a charger)	Ln.Ft.	\$3.18	1,320	\$4,200	20	\$280
3	382	Fence	Exclusion, barbed wire: 5-strand (Appalachian region cost estimate includes pro-rated cost of 1 gate)	Ln.Ft.	\$2.67	1,320	\$3,520	20	\$230
4	382	Fence	Exclusion, mountain site, barbed wire: 5-strand (cost estimate includes pro-rated cost of 1 gate)	Ln.Ft.	\$3.20	1,320	\$4,220	20	\$280
5	382	Fence	Interior, 3-strand high tensile electric (Appalachian region cost estimate includes prorated cost of 1 gate and a charger)	Ln.Ft.	\$2.05	1,320	\$2,710	20	\$180
6	382	Fence	Interior, mountain site, 3-strand high tensile electric (Appalachian region cost estimate includes prorated cost of 1 gate and a charger)	Ln.Ft.	\$2.44	1,320	\$3,220	20	\$210
7	382	Fence	Woven wire for small ruminants, 48" with 2-strands of barbed wire; 1 at the bottom and 1 at the top (Appalachian region cost estimate includes prorated cost of 1 gate)	Ln.Ft.	\$3.21	1,320	\$4,240	20	\$280
8	382	Fence	Confinement, 5-strand high tensile w/ posts on 6ft. Centers e.g., around or within heavy use areas (Appalachian region cost estimate includes prorated cost of 1 gate)	Ln.Ft.	\$5.62	480	\$2,700	20	\$180
9	382	Fence	Safety, 5ft. Chainlink, e.g., around a waste storage structure (Appalachian region cost estimate includes prorated cost of 1 gate)	Ln.Ft.	\$6.63	450	\$2,980	20	\$200
10	382	Fence	1-strand stainless steel electric poly wire (no prorated charger cost included)	Ln.Ft.	\$0.23	1,320	\$300	10	\$30
11	382	Fence	1-strand stainless steel electric poly wire (w/ prorated solar charger cost)	Ln.Ft.	\$0.48	1,320	\$630	10	\$70
12	382	Fence	2-strand stainless steel electric poly wire (no charger cost)	Ln.Ft.	\$0.32	1,320	\$420	10	\$50
13	382	Fence	2-strand stainless steel electric poly wire (w/ prorated solar charger cost)	Ln.Ft.	\$0.56	1,320	\$740	10	\$90
14	382	Fence	40" electric netting for small ruminants and/or poultry	Ln.Ft.	\$1.20	660	\$790	15	\$70

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<b>386 Field Border</b>									
1	386	Field Border	Native Warm Season Grass Establishment (foregone income from land taken out of production included)	Acre	\$510	1	\$510	10	\$60
2	386	Field Border	Introduced Grass/Legume Mixture Establishment (foregone income included)	Acre	\$370	1	\$370	10	\$40
3	386	Field Border	Pollinator Mixture Establishment (foregone income included)	Acre	\$550	1	\$550	10	\$60
4	386	Field Border	Organic Grass/Legume Mixture Establishment (foregone income included)	Acre	\$425	1	\$430	10	\$50
5	386	Field Border	Native Warm Season Grass Establishment (foregone income not included)	Acre	\$290	1	\$290	10	\$30
6	386	Field Border	Introduced Grass/Legume Mixture Establishment (foregone income not included)	Acre	\$120	1	\$120	10	\$10
7	386	Field Border	Pollinator Mixture Establishment (foregone income not included)	Acre	\$350	1	\$350	10	\$40
8	386	Field Border	Organic Grass/Legume Mixture Establishment (foregone income not included)	Acre	\$180	1	\$180	10	\$20
<b>390 Riparian Herbaceous Buffer</b>									
1	390	Riparian Herbaceous Cover	Native Warm Season Grass and Forbs Establishment (no foregone income)	Acre	\$350	1	\$350	5	\$80
2	390	Riparian Herbaceous Cover	Introduced Grass/Legume & Forb Mixture Establishment (no foregone income)	Acre	\$280	1	\$280	5	\$60
3	390	Riparian Herbaceous Cover	Pollinator Mixture Establishment (no foregone income)	Acre	\$410	1	\$410	5	\$90
<b>391 Riparian Forest Buffer</b>									
1	391	Riparian Forest Buffer	Bare-root, hand planted, conifers, hardwoods and shrubs	Acre	\$735	3	\$2,210	15	\$180
2	391	Riparian Forest Buffer	Bare-root, machine planted, conifers, hardwoods and shrubs	Acre	\$810	3	\$2,430	15	\$200
3	391	Riparian Forest Buffer	Bare-root shrubs, 300 stems per acre, no tubes (12ft. x 12ft. spacing)	Acre	\$515	2	\$1,030	15	\$90
4	391	Riparian Forest Buffer	Bare-root shrubs, 680 stems per acre, no tubes (8ft. x 8ft. Spacing)	Acre	\$800	2	\$1,600	15	\$130
5	391	Riparian Forest Buffer	Bare-root shrubs, 870 stems per acre, no tubes (5ft. x 10ft. Spacing)	Acre	\$930	2	\$1,860	15	\$150
6	391	Riparian Forest Buffer	Bare-root hardwoods with tubes, 110 trees per acre (20ft. x 20ft. Spacing)	Acre	\$790	10	\$7,900	15	\$650
7	391	Riparian Forest Buffer	Bare-root hardwoods with tubes, 300 trees per acre (12ft. x 12ft. Spacing)	Acre	\$1,690	10	\$16,900	15	\$1,400
8	391	Riparian Forest Buffer	Natural succession <b>(unplanted; consists of foregone income for land taken out of production)</b>	Acre	\$250	5	\$1,250	15	\$100
9	391	Riparian Forest Buffer	Natural regeneration with some limited tree planting <b>(25 four to five ft. "whips")</b>	Acre	\$540	5	\$2,700	15	\$220
10	391	Riparian Forest Buffer	Bare-root hardwoods, 110 trees with tubes per acre & 120 mixed shrubs per acre (no tubes)	Acre	\$1,600	3	\$4,800	15	\$400
<b>393 Filter Strip</b>									
1	393	Filter Strip	Native Warm Season Grass Establishment (foregone income included)	Acre	\$380	2	\$760	10	\$90
2	393	Filter Strip	Introduced Grass/Legume Mixture Establishment (foregone income included)	Acre	\$410	2	\$820	10	\$100

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3	393	Filter Strip	NWSG Establishment with shaping and grading(foregone income included)	Acre	\$570	2	\$1,140	10	\$130
4	393	Filter Strip	Introduced Grass/Legume Mix. Estab. w/ shaping & grading(foregone income included)	Acre	\$590	2	\$1,180	10	\$140
5	393	Filter Strip	Native Warm Season Grass Establishment (foregone income not included)	Acre	\$140	2	\$280	10	\$30
6	393	Filter Strip	Introduced Grass/Legume Mixture Establishment (foregone income not included)	Acre	\$170	2	\$340	10	\$40
<b>394 Firebreak</b>									
1	394	Firebreak	Firebreak Establishment - disked	Ln.Ft.	\$0.09	5,000	\$470	5	\$100
2	394	Firebreak	Firebreak Establishment - constructed w/ medium equipment, flat-medium slopes ( ≤ 15%)	Ln.Ft.	\$0.49	3,000	\$1,480	5	\$320
3	394	Firebreak	Firebreak Establishment - constructed w/ medium equipment, steep slopes ( > 15%)	Ln.Ft.	\$1.40	1,000	\$1,400	5	\$300
4	394	Firebreak	Firebreak Establishment - vegetated	Ln.Ft.	\$0.16	5,000	\$800	5	\$170
5	394	Firebreak	Firebreak Estab. - constructed w/ heavy equipment, dozer mounted fireplow	Ln.Ft.	\$0.28	5,000	\$1,400	5	\$300
<b>395 Stream Habitat Improvement and Management</b>									
1	395	Stream Habitat Improvement and Management	Riparian Zone Improvement-Forested <b>(new scenario)</b>	Acre	\$9,200	1	\$9,200	5	\$2,000
2	395	Stream Habitat Improvement and Management	Placement of large wood (logs, root wads, log structures) into a stream channel as habitat components (unit based upon: bankful width x stream reach length)	Acre	\$16,000	1	\$16,000	5	\$3,470
3	395	Stream Habitat Improvement and Management	Placement of individual boulders, boulder clusters, or rock structures in or adjacent to the stream channel as habitat components (unit based upon: bankful width x stream reach length)	Acre	\$16,000	1	\$16,000	5	\$3,470
4	395	Stream Habitat Improvement and Management	Placement of a combination of rock AND wood structures into a stream channel (unit based upon: bankful width x stream reach length)	Acre	\$29,333	1	\$29,330	5	\$6,370
<b>396 Aquatic Organism Passage</b>									
1	396	Aquatic Organism Passage	Blockage removal	Cu.Yds.	\$120	200	\$24,000	5	\$5,210
2	396	Aquatic Organism Passage	Bridge, CIP Abutment <b>(new scenario)</b>	Ft	\$2,267	30	\$68,000	5	\$14,760
3	396	Aquatic Organism Passage	Bridge, Precast Abutment <b>(new scenario)</b>	Ft	\$1,907	30	\$57,200	5	\$12,420
4	396	Aquatic Organism Passage	Bridge, Prefabricated <b>(new scenario)</b>	Ft	\$2,187	30	\$65,600	5	\$14,240
5	396	Aquatic Organism Passage	CMP Culvert <b>(new scenario)</b>	Ft	\$787	40	\$31,470	5	\$6,830
6	396	Aquatic Organism Passage	Concrete Box Culvert	Ft	\$2,000	20	\$40,000	5	\$8,680
7	396	Aquatic Organism Passage	Concrete Dam Removal <b>(new scenario)</b>	Cu.Yds.	\$480	250	\$120,000	5	\$26,050
8	396	Aquatic Organism Passage	Concrete Ladder <b>(new scenario)</b>	Ft	\$13,467	20	\$269,330	5	\$58,470
9	396	Aquatic Organism Passage	Earthen Dam Removal <b>(new scenario)</b>	Cu.Yds.	\$147	500	\$73,330	5	\$15,920

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10	396	Aquatic Organism Passage	Low Water Crossing (new scenario)	Cu.Yds.	\$260	42	\$10,920	5	\$2,370
11	396	Aquatic Organism Passage	Step Pool Weir (new scenario)	Cu.Yds.	\$115	800	\$92,000	5	\$19,970
12	396	Aquatic Organism Passage	Stream Simulation Culvert with Headwall (new scenario)	Ft	\$2,287	20	\$45,730	5	\$9,930
13	396	Aquatic Organism Passage	Stream Simulation Culvert without Headwall (new scenario)	Ft	\$1,360	40	\$54,400	5	\$11,810
<b>400 Bivalve Aquaculture Gear and Biofouling Control</b>									
1	400	Bivalve Aquaculture Gear and Biofouling Control	Floating Oyster Bag gear cycling (labor cost only to reduce biofouling; no surplus gear)	Each	\$35	35	\$1,210	1	\$1,240
2	400	Bivalve Aquaculture Gear and Biofouling Control	Clam Net cycling (labor cost only to reduce biofouling; no surplus gear)	Each	\$80	20	\$1,600	1	\$1,640
3	400	Bivalve Aquaculture Gear and Biofouling Control	Oyster Cage cycling (labor cost only to reduce biofouling; no surplus gear) - small	Each	\$61	30	\$1,840	1	\$1,890
4	400	Bivalve Aquaculture Gear and Biofouling Control	Oyster Cage cycling (labor cost only to reduce biofouling; no surplus gear) - medium	Each	\$120	15	\$1,800	1	\$1,850
5	400	Bivalve Aquaculture Gear and Biofouling Control	Oyster Cage cycling (labor cost only to reduce biofouling; no surplus gear) - large	Each	\$180	100	\$18,000	1	\$18,500
<b>410 Grade Stabilization Structure</b>									
1	410	Grade Stabilization Structure	Check dams (unit based on ton of rock riprap installed)	Ton	\$67	126	\$8,400	15	\$690
2	410	Grade Stabilization Structure	Earthen embankment dam w/ principal spillway pipe < or = to 6 Inches	Cu.Yd.	\$5.07	2,000	\$10,130	15	\$840
3	410	Grade Stabilization Structure	Earthen embankment dam w/ principal spillway pipe > or = to 8 Inches < 12 inches	Cu.Yd.	\$6.00	2,500	\$15,000	15	\$1,240
4	410	Grade Stabilization Structure	Earthen embankment dam w/ principal spillway pipe > 12 inches	Cu.Yd.	\$7.60	2,500	\$19,000	15	\$1,570
5	410	Grade Stabilization Structure	Earthen embankment, soil treatment to stabilize area	Cu.Yd.	\$9.00	2,500	\$22,500	15	\$1,860
6	410	Grade Stabilization Structure	Earthen dry dam w/ pipe drop, i.e., riser and barrel structure constructed using plastic pipe, typically without anti-seep collars (units based on riser weir length x barrel length)	Sq.Ft.	\$26	188	\$4,880	15	\$400
7	410	Grade Stabilization Structure	Earthen dry dam w/ pipe drop, i.e., riser and barrel structure constructed using steel pipe, typically with steel anti-seep collars (units based on riser weir length x barrel length)	Sq.Ft.	\$14.63	940	\$13,750	15	\$1,140
8	410	Grade Stabilization Structure	Weir drop structures (metal or reinforced concrete)	Sq.Ft.	\$90	90	\$8,100	15	\$670
9	410	Grade Stabilization Structure	Rock drop structures held in place w/ galvanized wire, e.g., gabion baskets, fence panels, or "sausage" baskets	Sq.Ft.	\$140	24	\$3,360	15	\$280
10	410	Grade Stabilization Structure	Bioengineered log drop structures consisting of logs, rock riprap and earthfill	Each	\$5,270	1	\$5,270	15	\$440

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11	410	Grade Stabilization Structure	Chute structure consisting of rock riprap, pavers, concrete or any other durable material used to stabilized the grade and control erosion in natural or artificial channels	Ton	\$57	33	\$1,870	15	\$150
12	410	Grade Stabilization Structure	Pipe inlet structure consisting of plastic or CMP that does not require any additional appurtenances such as headwalls or risers	Ln.Ft.	\$43	30	\$1,290	15	\$110
<b>412 Grassed Waterway</b>									
1	412	Grassed Waterway	Grassed Waterway < 1,000ft. (500ft. long assumed typical x 12' bottom width = 6,000sq.ft. x 3 to account for total area disturbed during construction that needs seeding = 18,000sq.ft.)	Sq.Ft.	\$0.06	18,000	\$1,040	10	\$120
2	412	Grassed Waterway	Grassed Waterway > 1,000ft. (1,500ft. long assumed typical x 12' bottom width = 18,000sq.ft. x 3 to account for total area disturbed during construction that needs seeding = 54,000sq.ft.)	Sq.Ft.	\$0.05	54,000	\$2,850	10	\$330
<b>422 Hedgerow Planting</b>									
1	422	Hedgerow Planting	Hedgerow Planting with hardwood trees w/ tubes and NWSGs, hand plant	Sq.Ft.	\$0.03	20,000	\$600	15	\$50
2	422	Hedgerow Planting	Hedgerow Planting with hardwood trees w/ tubes and NWSGs, machine plant	Sq.Ft.	\$0.04	20,000	\$800	15	\$70
3	422	Hedgerow Planting	Hedgerow Planting with hardwood trees w/ tubes and introduced grasses, hand plant	Sq.Ft.	\$0.02	28,000	\$560	15	\$50
<b>430 Irrigation Water Convenyance, Corrugated Metal Pipeline</b>									
1	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Buried irrigation pipe < or = to 2 inch diameter	Ln.Ft.	\$2.82	1,000	\$2,820	20	\$190
2	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Buried irrigation pipe > 2 inch and < 6 inch diameter	Ln.Ft.	\$5.80	1,000	\$5,800	20	\$380
3	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Buried irrigation pipe ≥ 6 inch diameter	Ln.Ft.	\$9.02	1,000	\$9,020	20	\$600
4	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Surface installation of HDPE (iron pipe size & tubing) pipeline, typical size of pipe installed: 1-inch to 4-inch	Ln.Ft.	\$1.44	1,000	\$1,440	20	\$100
5	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Surface steel - iron pipe size, typical size ranges from 2-inch to 18-inch; and typical scenario size assumed here is 2-inch	Ln.Ft.	\$7.23	1,320	\$9,540	20	\$630
6	430	Irrigation Water Convenyance, Corrugated Metal Pipeline	Surface aluminum irrigation pipe, typical size ranges from 6-inch to 12-inch; and typical scenario size assumed here is 8-inch	Ln.Ft.	\$6.91	660	\$4,560	20	\$300
<b>436 Irrigation Reservoir</b>									
1	436	Irrigation Reservoir	Earthen structure - dugout or embankment	Cu.Yds.	\$3.33	11,350	\$37,830	15	\$3,120

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<b>441 Irrigation System, Microirrigation</b>									
1	441	Irrigation System, Microirrigation	Subsurface dripline or drip tape with emitters and media filter (PVC mains and lateral supply lines)	Acre	\$1,976	60	\$118,560	15	\$9,790
2	441	Irrigation System, Microirrigation	Surface PE tubing with emitters and media filter (PVC mains and lateral supply lines)	Acre	\$2,420	60	\$145,200	15	\$11,990
3	441	Irrigation System, Microirrigation	Microjet system with emitters and media filter (PVC mains and lateral supply lines)	Acre	\$3,000	60	\$180,000	15	\$14,860
4	441	Irrigation System, Microirrigation	Micro-irrigation system with surface drip trip tape and media filter 1.1 - 6 acres (typically a diversified specialty crop farm installation)	Acre	\$1,820	3.0	\$5,460	15	\$450
5	441	Irrigation System, Microirrigation	Micro-irrigation system with surface drip trip tape and media filter > 6 acres (typically a diversified specialty crop farm installation)	Acre	\$1,133	15.0	\$17,000	15	\$1,400
6	441	Irrigation System, Microirrigation	Surface micro-irrigation system with screen filter for seasonal high tunnels (30' x 96' assumed typical)	Sq.Ft.	\$0.37	2,880	\$1,070	15	\$90
<b>442 Irrigation System, Sprinkler</b>									
1	442	Irrigation System-Sprinkler	Irrigation System - Center Pivot Sprinkler	Ln.Ft.	\$76	1,300	\$99,000	15	\$8,170
2	442	Irrigation System-Sprinkler	Retrofit existing Center Pivot Sprinkler with new spray nozzles	Ln.Ft.	\$14	1,300	\$18,500	15	\$1,530
3	442	Irrigation System-Sprinkler	Linear or lateral move sprinkler system	Ln.Ft.	\$99	1,280	\$126,700	15	\$10,460
4	442	Irrigation System-Sprinkler	Wheel line (aka side roll, wheelmove or lateral roll) with 7ft. diam. wheels	Ln.Ft.	\$17	1,280	\$21,900	15	\$1,810
5	442	Irrigation System-Sprinkler	Solid set sprinkler system	Acre	\$4,800	10	\$48,000	15	\$3,960
6	442	Irrigation System-Sprinkler	Traveling gun sprinkler system (≤ 2" delivery hose) to apply liquid animal waste from feeding operations	Each	\$8,690	1	\$8,700	15	\$720
7	442	Irrigation System-Sprinkler	Traveling gun sprinkler system (> 2" ≤ 3" delivery hose) to apply liquid animal waste from feeding operations	Each	\$23,425	1	\$23,400	15	\$1,930
8	442	Irrigation System-Sprinkler	Traveling gun sprinkler system (> 3" delivery hose) to apply liquid animal waste from feeding operations	Each	\$46,350	1	\$46,400	15	\$3,830
9	442	Irrigation System-Sprinkler	Portable irrigation system consisting of PE pipe and irrigation PODs with attached sprinklers (will serve 10 acres assumed as typical)	Each	\$257	14	\$3,600	15	\$300
<b>447 Irrigation System, Tailwater Recovery</b>									
1	447	Irrigation Sys. Tailwater Recovery	Irrigation System Tailwater Recovery	LnFt	\$3	1,000	\$3,000	15	\$250
<b>449 Irrigation Water Management</b>									
1	449	Irrigation Water Management	Basic IWM plan implementation < or + 30 acres	Acre	\$21	15	\$300	1	\$310

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2	449	Irrigation Water Management	Basic IWM plan implementation > 30 acres	Acre	\$9.60	50	\$500	1	\$510
<b>457 Mine Shaft and Adit Closing</b>									
1	457	Mine Shaft and Adit Closing	Riprap Closing of a horizontal mine opening	Sq.Ft.	\$60	80	\$4,800	15	\$400
2	457	Mine Shaft and Adit Closing	Bat Grate/Closing of a horizontal mine opening	Sq.Ft.	\$79	75	\$5,900	15	\$490
<b>468 Lined Waterway or Outlet</b>									
1	468	Lined Waterway or Outlet	Rock-lined Waterway or Outlet, 12 inch rock (D100 = 9 inches; velocity ≈ 8cu.ft./sec.)	Sq.Ft.	\$2.87	4,500	\$12,900	15	\$1,070
<b>472 Access Control</b>									
1	472	Access Control	Foregone grazing/lost income from previously grazing woodland area	Acre	\$2.97	15	\$45	1	\$46
2	472	Access Control	Foregone grazing/lost income from previously grazing wetlands, sinkholes or other environmentally sensitive sites	Acre	\$18	1	\$17.80	1	\$18
3	472	Access Control	Foregone grazing/lost income from previously grazing riparian pasture site	Acre	\$26	2	\$52.50	1	\$54
4	472	Access Control	Road or trail closure using treated posts and a metal gate	Each	\$575	1	\$575.00	10	\$67
<b>484 Mulching</b>									
1	484	Mulching	Small grain staw or other natural material for erosion control, moderate soil temperature, water conservation and/or weed suppression, partial coverage either in the rows or between rows	Acre	\$340	1	\$340	1	\$350
2	484	Mulching	Small grain straw or other natural material, all purposes, full coverage	Acre	\$515	1	\$520	1	\$530
3	484	Mulching	Biodegradable erosion control blanket on eroding sites, typically made of coconut coir, wood fiber or straw and covered on both sides with polypropylene netting to control erosion & establish vegetative cover	Sq.Ft.	\$0.20	5,000	\$1,000	1	\$1,030
4	484	Mulching	Tree and/or shrub mats	Each	\$2.16	110	\$240	1	\$250
<b>490 Tree and Shrub Site Preparation</b>									
1	490	Tree and Shrub Site Preparation	Ground Applied Herbicide, forestland	Acre	\$201	40	\$8,040	1	\$8,270
2	490	Tree and Shrub Site Preparation	Aerial Applied Herbicide, forestland	Acre	\$100	40	\$4,000	1	\$4,110
3	490	Tree and Shrub Site Preparation	Hand Applied Herbicide, forestland	Acre	\$230	10	\$2,300	1	\$2,360
4	490	Tree and Shrub Site Preparation	Rolling Drum Chopper	Acre	\$138	40	\$5,520	1	\$5,670
5	490	Tree and Shrub Site Preparation	Shear and Pile dozer or other heavy equip. to remove undesirable vegetation	Acre	\$430	40	\$17,200	1	\$17,680
6	490	Tree and Shrub Site Preparation	Mow and Spray, non-forest site	Acre	\$90	40	\$3,600	1	\$3,700
7	490	Tree and Shrub Site Preparation	Mow and Disk, non-forest site	Acre	\$90	40	\$3,600	1	\$3,700

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8	490	Tree and Shrub Site Preparation	Furrow or Scalp and spray on open land sites	Acre	\$120	20	\$2,400	1	\$2,470
9	490	Tree and Shrub Site Preparation	Spray, Furrow or Scalp and spray again on open land sites	Acre	\$120	20	\$2,400	1	\$2,470
10	490	Tree and Shrub Site Preparation	Hand scalp 3ft. circles	Acre	\$270	1	\$270	1	\$280
11	490	Tree and Shrub Site Preparation	Forestry mulching, ≤ 6" dbh woody material	Acre	\$550	15	\$8,300	1	\$8,530
12	490	Tree and Shrub Site Preparation	Forestry mulching, > 6" ≤ 10" dbh woody material	Acre	\$770	15	\$11,600	1	\$11,920
<b>511 Forage Harvest Management</b>									
1	511	Forage Harvest Management	Record keeping and forage tissue testing	Acre	\$2.64	30	\$80	1	\$80
<b>512 Forage and Biomass Planting</b>									
1	512	Forage and Biomass Planting	Native Warm Season Grass Establishment	Acre	\$250	30	\$7,500	5	\$1,630
2	512	Forage and Biomass Planting	Native Warm Season Grass Establishment, mined land	Acre	\$495	30	\$14,850	5	\$3,220
3	512	Forage and Biomass Planting	Native Warm Season Grass Mix Establishment	Acre	\$395	30	\$11,850	5	\$2,570
4	512	Forage and Biomass Planting	Native Warm Season Grass Mix Establishment, mined land	Acre	\$640	30	\$19,200	5	\$4,170
5	512	Forage and Biomass Planting	Cool Season Grass/Legume Mix Establishment	Acre	\$450	30	\$13,500	5	\$2,930
6	512	Forage and Biomass Planting	Renovation with Legumes, drilled with some soil amendments	Acre	\$150	10	\$1,500	5	\$330
7	512	Forage and Biomass Planting	Renovation with Legumes, drilled, no soil amendments	Acre	\$75	10	\$750	5	\$160
8	512	Forage and Biomass Planting	Renovation with Legumes, broadcast "frost-seeded" without soil amendments	Acre	\$67	10	\$670	5	\$150
9	512	Forage and Biomass Planting	Annuals used to convert from endophyte infected fescue to desired cool season grass/legume mixture (practice is not complete until the perennial is established)	Acre	\$530	30	\$15,900	5	\$3,450
10	512	Forage and Biomass Planting	Annuals used to convert from endophyte infected fescue, degraded perennial grasses or a monoculture or no grass present to desired native warm season grass/legume mixture (practice is not complete until the perennial is established)	Acre	\$525	30	\$15,750	5	\$3,420
11	512	Forage and Biomass Planting	Chemical free fescue conversion to NWSGs	Acre	\$495	10	\$4,950	5	\$1,070
12	512	Forage and Biomass Planting	Endophyte infect fescue conversion to native warm season grass mixture	Acre	\$420	10	\$4,200	5	\$910
13	512	Forage and Biomass Planting	Chemical free fescue conversion to cool season grass and legume mixture	Acre	\$316	10	\$3,160	5	\$690
14	512	Forage and Biomass Planting	Endophyte-infected fescue conversion to cool season grass and legume mixture	Acre	\$217	10	\$2,170	5	\$470
<b>516 Livestock Pipeline</b>									
1	516	Livestock Pipeline	Buried pipeline 1" PVC or HDPE	Ln.Ft.	\$2.55	1,000	\$2,550	20	\$170
2	516	Livestock Pipeline	Buried pipeline 2" PVC or HDPE	Ln.Ft.	\$2.75	1,000	\$2,750	20	\$180
3	516	Livestock Pipeline	Buried pipeline in rocky terrain (any size)	Ln.Ft.	\$5.21	500	\$2,610	20	\$170

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4	516	Livestock Pipeline	Quick Connect Couplers	Each	\$55	10	\$550	20	\$40
5	516	Livestock Pipeline	Rural water connection to public system in steep topography <b>with</b> a reduced pressure zone device (RPZ)	Each	\$1,750	1	\$1,750	20	\$120
6	516	Livestock Pipeline	Rural water connection to public system in steep topography <b>without</b> a reduced pressure zone device (RPZ)	Each	\$1,300	1	\$1,300	20	\$90
7	516	Livestock Pipeline	Freeze-proof hydrant with 10ft. of PVC supply pipe assumed as typical to get water from source (distribution on farm requires one of the above scenarios)	Each	\$155	1	\$160	20	\$10
<b>521 Pond Sealing or Lining</b>									
1	521A	Pond Sealing or Lining	Flexible Membrane - uncovered without liner drainage or venting	Sq.Yd.	\$10.36	2,420	\$25,100	20	\$1,660
2	521A	Pond Sealing or Lining	Flexible Membrane - uncovered without liner drainage or venting	Sq.Ft.	\$1.15	21,780	\$25,100	20	\$1,660
3	521A	Pond Sealing or Lining	Flexible Membrane - uncovered with liner drainage and venting	Sq.Yd.	\$13.49	2,420	\$32,600	20	\$2,150
4	521A	Pond Sealing or Lining	Flexible Membrane - uncovered with liner drainage and venting	Sq.Ft.	\$1.50	21,780	\$32,600	20	\$2,150
5	521A	Pond Sealing or Lining	Flexible Membrane - covered without liner drainage or venting	Sq.Yd.	\$11.60	2,420	\$28,100	20	\$1,850
6	521A	Pond Sealing or Lining	Flexible Membrane - covered without liner drainage or venting	Sq.Ft.	\$1.29	21,780	\$28,100	20	\$1,850
7	521A	Pond Sealing or Lining	Flexible Membrane - covered with liner drainage and venting	Sq.Yd.	\$14.73	2,420	\$35,600	20	\$2,350
8	521A	Pond Sealing or Lining	Flexible Membrane - covered with liner drainage and venting	Sq.Ft.	\$1.64	21,780	\$35,600	20	\$2,350
9	521C	Pond Sealing or Lining	Bentonite clay, applied 1ft. thick with 0.5ft. soil cover	Ton	\$1,460	131	\$190,800	15	\$15,750
10	521C	Pond Sealing or Lining	Bentonite clay (50lb. bag), applied 1ft. thick with 0.5ft. soil cover	50lb. bag	\$36.50	5,227	\$190,800	15	\$15,750
11	521C	Pond Sealing or Lining	Bentonite clay, applied 1ft. thick with 0.5ft. soil cover	Sq.Ft.	\$4.38	43,560	\$190,800	15	\$15,750
12	521C	Pond Sealing or Lining	Bentonite clay, applied 1ft. thick, no soil cover	Ton	\$1,125	131	\$147,000	15	\$12,140
13	521C	Pond Sealing or Lining	Bentonite clay (50lb. bag), applied 1ft. thick, no soil cover	50lb. bag	\$28.13	5,227	\$147,000	15	\$12,140
14	521C	Pond Sealing or Lining	Bentonite clay, applied 1ft. thick, no soil cover	Sq.Ft.	\$3.37	43,560	\$147,000	15	\$12,140
15	521D	Pond Sealing or Lining	Compacted clay, applied 1ft. thick with 0.5ft. soil cover, < or = 1 mile haul	Cu.Yd.	\$10.50	2,420	\$25,400	15	\$2,100
16	521D	Pond Sealing or Lining	Compacted clay, applied 1ft. thick with 0.5ft. soil cover, > 1 mile haul (approx. 5 mile haul assumed typical)	Cu.Yd.	\$11.60	2,420	\$28,100	15	\$2,320
<b>527 Karst Sinkhole Treatment</b>									
1	527	Karst Sinkhole Treatment	Excavate/debris removal and proper disposal	Each	\$850	1	\$850	10	\$100
2	527	Karst Sinkhole Treatment	Sinkhole protection cap installation	Cu.Ft.	\$2.36	2,538	\$5,990	10	\$700
<b>528 Prescribed Grazing</b>									

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1	528	Prescribed Grazing	Basic Grazing Plan implementation (minimum of 4 paddocks)	Acre	\$17.06	60	\$1,020	1	\$1,050
2	528	Prescribed Grazing	Intensive Grazing Plan implementation (minimum of 5 paddocks)	Acre	\$28.63	60	\$1,720	1	\$1,770
<b>533 Pumping Plant</b>									
1	533	Pumping Plant	Ram pump	Each	\$1,600	1	\$1,600	15	\$130
2	533	Pumping Plant	Pasture/nose pump	Each	\$715	1	\$720	15	\$60
3	533	Pumping Plant	Electrical pump ≤ 1.5 HP	Each	\$2,600	1	\$2,600	15	\$210
4	533	Pumping Plant	Electrical pump > 1.5 HP < or = 5 HP	Brake HP	\$1,260	4	\$5,040	15	\$420
5	533	Pumping Plant	Electrical pump > 5 HP < or = 10 HP	Brake HP	\$725	8	\$5,800	15	\$480
6	533	Pumping Plant	Electrical pump > 10 HP < or = 20 HP	Brake HP	\$695	15	\$10,430	15	\$860
7	533	Pumping Plant	Electrical pump > 20 HP	Brake HP	\$325	50	\$16,250	15	\$1,340
8	533	Pumping Plant	Variable frequency drive (doesn't include motor)	Brake HP	\$235	50	\$11,750	15	\$970
9	533	Pumping Plant	Tractor power take-off (PTO) pump	Each	\$10,770	1	\$10,770	15	\$890
10	533	Pumping Plant	Wind turbine powered pump	Each	\$7,545	1	\$7,550	15	\$620
11	533	Pumping Plant	Solar powered pump, 2 panel 24V system	Each	\$2,600	1	\$2,600	15	\$210
12	533	Pumping Plant	Solar powered pump, 4 panel 48V system	Each	\$4,300	1	\$4,300	15	\$360
13	533	Pumping Plant	Electric sump pump ≤ 5 Hp	Brake HP	\$665	3	\$2,000	15	\$170
<b>554 Drainage Water Management</b>									
1	554	Drainage Water Management	Drainage water management, management and record keeping cost/control structure	Each	\$90	5	\$450	1	\$460
<b>558 Roof Runoff Structure</b>									
1	558	Roof Runoff Structure	Gutters, downspouts and splashguards	Ln.Ft.	\$5.61	180	\$1,010	15	\$80
2	558	Roof Runoff Structure	Fascia boards, gutters, downspouts and splashguards	Ln.Ft.	\$8.77	180	\$1,580	15	\$130
3	558	Roof Runoff Structure	Gutters, downspouts and a storage tank (1,500gal. tank assumed as typical)	Ln.Ft.	\$17.89	180	\$3,220	15	\$270
4	558	Roof Runoff Structure	Concrete curb or parabolic channel with controlled outlet	Ln.Ft.	\$13.73	200	\$2,750	15	\$230
5	558	Roof Runoff Structure	Trench drain with controlled outlet	Ln.Ft.	\$14.75	200	\$2,950	15	\$240
6	558	Roof Runoff Structure	Drip pad along dripline of a building with controlled outlet	Ln.Ft.	\$3.95	200	\$790	15	\$70
7	558	Roof Runoff Structure	Roof runoff storage tank with controlled overflow outlet (1,500gal. tank assumed as typical)	Gal.	\$1.61	1,500	\$2,420	15	\$200
<b>560 Access Road</b>									
1	560	Access Road	Rehabilitation of and existing gravel road: 1-Lane, 14ft. wide, 2ft. shoulders, no trees cleared, 6" gravel base over geotextile fabric	Ln.Ft.	\$7.43	500	\$3,720	10	\$430

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2	560	Access Road	New construction: 1-Lane, 14ft. wide, 2ft. shoulders, no trees cleared, 6" gravel base over geotextile fabric	Ln.Ft.	\$18.60	500	\$9,300	10	\$1,080
<b>561 Heavy Use Area Protection</b>									
1	561	Heavy Use Area Protection	Rock/gravel on geotextile (6" gravel base)	Sq.Ft.	\$1.67	1,624	\$2,710	10	\$310
2			Rock/gravel in GeoCells on geotextile (6" gravel base)	Sq.Ft.	\$5.27	630	\$3,320	10	\$390
3	561	Heavy Use Area Protection	5" Reinforced concrete slab over a 4" of gravel base (no curb, no gravel around it)	Sq.Ft.	\$6.39	630	\$4,030	10	\$470
4	561	Heavy Use Area Protection	5" Concrete slab with welded-wire or fiber reinforcement over a 4" of gravel base (curb included, but no gravel around it)	Sq.Ft.	\$6.99	4,000	\$27,960	10	\$3,240
5	561	Heavy Use Area Protection	5" concrete slab, fiber reinforced over a 4" of gravel base (no curb nor gravel around it)	Sq.Ft.	\$4.80	4,000	\$19,200	10	\$2,230
6	561	Heavy Use Area Protection	12" tall x 8" wide reinforced concrete curb retrofit of an existing concrete slab	Ln.Ft.	\$15.23	280	\$4,260	10	\$490
<b>574 Spring Development</b>									
1	574	Spring Development	Filter fabric, drainline, 2ft.wide x 3ft. high compacted clay cutoff wall and spring box water collection system, small (< 8ft. long cutoff wall)	Each	\$1,275	1	\$1,280	20	\$80
2	574	Spring Development	Filter fabric, drainline, 6inch wide x 3ft. high concrete cutoff wall and spring box water collection system, small (< 8ft. long cutoff wall)	Each	\$1,445	1	\$1,450	20	\$100
3	574	Spring Development	Filter fabric, drainline, 6inch wide x 4ft. high compacted clay cutoff wall, spring box and 1,550gal. tank water collection and storage system, medium (> 8ft. and < 15ft. long cutoff wall)	Each	\$2,800	1	\$2,800	20	\$180
4	574	Spring Development	Filter fabric, drainline, 6inch wide x 4ft. high concrete cutoff wall and spring box water collection system, large (> 15ft. and < 25ft. long cutoff wall)	Each	\$4,000	1	\$4,000	20	\$260
<b>575 Trails and Walkways</b>									
1	575	Trails and Walkways	Geotextile and 6" of gravel travel lane	Sq.Ft.	\$1.87	3,600	\$6,730	15	\$560
2	575	Trails and Walkways	5" Concrete over 4" gravel base travel lane	Sq.Ft.	\$5.50	3,600	\$19,800	15	\$1,630
<b>578 Stream Crossing</b>									
1	578	Stream Crossing	Bridge consisting of site preparation, dewatering, acquiring and installing abutments, girders, decking w/ necessary hardware, backfilling abutments, and armoring with geotextile and riprap	Sq.Ft.	\$53	252	\$13,360	10	\$1,550
2	578	Stream Crossing	Low-water crossing with hard armor, includes site preparation, dewatering, acquiring and installing gravel or geotextile with rock riprap or cast in place concrete on channel bottom and approaches	Sq.Ft.	\$8.72	936	\$8,160	10	\$950

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3	578	Stream Crossing	Geotextile and gravel graded crossing, small ≤ 50' long	Sq.Ft.	\$2.30	700	\$1,610	10	\$190
4	578	Stream Crossing	Geotextile and gravel graded crossing > 50' long	Sq.Ft.	\$2.00	1,400	\$2,800	10	\$320
5	578	Stream Crossing	Geotextile and gravel graded crossing with concrete access aprons (approx. 75')	SqFt	\$4.25	1,050	\$4,460	10	\$520
6	578	Stream Crossing	Graded crossing with a culvert, 30" diam. pipe x 40' with rock riprap headwalls	SqFt	\$4.46	1,050	\$4,680	10	\$540
7	578	Stream Crossing	Low-water crossing with geocells or similar with gravel or concrete final surface	Sq.Ft.	\$8.78	936	\$8,220	10	\$950
<b>580 Streambank &amp; Shoreline Protection</b>									
1	580	Streambank and Shoreline Protection	Bioengineered using shaping and non-woody vegetation	Sq.Ft.	\$0.84	20,000	\$16,800	20	\$1,110
2			Bioengineered using shaping and woody vegetation (willows assumed as typical)	Sq.Ft.	\$2.22	20,000	\$44,400	20	\$2,930
3	580	Streambank & Shoreline Protection	Bioengineered living shoreline stabilization with shaping, coir logs and tidal plugs	SqFt	\$4.30	10,000	\$43,000	20	\$2,840
4	580	Streambank & Shoreline Protection	Bioengineered using shaping, riprap at toe of slope and vegetation on the embankment	SqFt	\$4.05	2,500	\$10,130	20	\$670
5	580	Streambank & Shoreline Protection	Bioengineering using shaping, grading, and native trees and shrubs	SqFt	\$6.10	2,500	\$15,250	20	\$1,010
6	580	Streambank & Shoreline Protection	Engineered structural measures using shaping, riprap and/or concrete blocks or gabions (assumes 1,000ft. x 15ft. x 6ft. high bank with 3:1 side-slopes; rock goes up 5ft. and is 3ft. thick)	Ton	\$59	2,750	\$162,250	20	\$10,710
7	580	Streambank & Shoreline Protection	Engineered structural measures to construct bankfull benches and using boulders and/or log cluster (with boulders) to construct in-stream structures such as J-Hook, Vanes, Cross Vanes or Combo Root Wad/Log Vane and J-Hook structures	Ton	\$63	412	\$25,960	20	\$1,710
<b>585 Stripcropping</b>									
1	585	Stripcropping	Layout alternating strips of erosion susceptible and erosion resistant crops for water erosion control	Acre	\$4.35	25	\$110	5	\$20
2	585	Stripcropping	Layout alternating strips of erosion susceptible and erosion resistant crops for wind erosion control	Acre	\$1.91	80	\$150	5	\$30
3	585	Stripcropping	Layout and establish 60' crop strips alternating with cool season grass/legume mix strips	Acre	\$270	25	\$6,750	5	\$1,470
<b>587 Structure for Water Control</b>									
1	587	Structure for Water Control	Inlet Flashboard Riser, Metal	Diam.In.Ft.	\$7.09	2,100	\$14,890	20	\$980
2	587	Structure for Water Control	Flashboard Riser w/ Single Headwall	Diam.In.Ft.	\$10.20	2,100	\$21,420	20	\$1,410
3	587	Structure for Water Control	Flashboard Riser w/ Double Headwall	Diam.In.Ft.	\$13.60	2,100	\$28,560	20	\$1,880
4	587	Structure for Water Control	Inline Flashboard Riser, Metal	Diam.In.Ft.	\$3.72	1,800	\$6,700	20	\$440
5	587	Structure for Water Control	Commercial Inline Flashboard Riser	Diam.In.Ft.	\$5.50	2,100	\$11,550	20	\$760

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6	587	Structure for Water Control	Culvert, ≤ 30" x 40' HDPE pipe (24" pipe assumed as typical)	Diam.In.Ft.	\$1.99	960	\$1,910	20	\$130
7	587	Structure for Water Control	Culvert, ≤ 30" x 40' CMP pipe (24" pipe assumed as typical)	Diam.In.Ft.	\$2.40	960	\$2,300	20	\$150
8	587	Structure for Water Control	Slide Gate	Ft.	\$2,000	4	\$8,000	20	\$530
9	587	Structure for Water Control	Flap gate	Ft.	\$1,200	1	\$1,200	20	\$80
10	587	Structure for Water Control	Large Flap Gate w/ Headwall	Ft.	\$1,945	4	\$7,780	20	\$510
11	587	Structure for Water Control	Rock Checks for Water Surface Profile	Ton	\$67	87	\$5,830	20	\$380
12	587	Structure for Water Control	In-Stream Structure for Water Surface Profile - Concrete	Ft.	\$242	36	\$8,710	20	\$570
13	587	Structure for Water Control	In-Stream Structure for Water Surface Profile - Rock	Ton	\$60	116	\$6,960	20	\$460
14	587	Structure for Water Control	CMP Turnout	Each	\$732	1	\$730	20	\$50
<b>590 Nutrient Management</b>									
1	590	Nutrient Management	Level B, manure history (basic NMP implementation)	Acre	\$20	20	\$400	1	\$410
2	590	Nutrient Management	Level B, fertilizer only (basic NMP implementation)	Each	\$13	1	\$10	1	\$10
3	590	Nutrient Management	Diversified/Specialty Crop Nutrient Mangement Plan implementation	Acre	\$107	20	\$2,130	1	\$2,190
4	590	Nutrient Management	Enhanced Nutrient Mgt (level C)	Acre	\$27	40	\$1,070	1	\$1,100
<b>591 Amendments for the Treatment of Agricultural Waste</b>									
1	591	Amendments for the Treatment of Agricultural Waste	Litter Amendments for Water Quality, Partially Treated Brood Chamber (4 flocks in a 42' x 500'; 20,000sq.ft. poultry house assumed typical)	1Ksq.ft.	\$28	84	\$2,350	1	\$2,420
<b>600 Terrace</b>									
1	600	Terrace	Broad-based level terraces (2.5ft. height, and 5:1 front and back slopes assumed typical)	Ln.Ft.	\$1.90	2,500	\$4,800	10	\$560
2	600	Terrace	Flat-channel terraces (2.5ft. height, and 8:1 front and back slopes assumed typical)	Ln.Ft.	\$3.10	2,500	\$7,800	10	\$910
3	600	Terrace	Grass-backed terraces (2.5ft. height, and one relatively flat (5:1) slope and one steep (2:1) slope assumed typical)	Ln.Ft.	\$1.10	2,500	\$2,800	10	\$320
4	600	Terrace	Narrow-based (≤ 8% slope, 2.5ft. height, and approximately 2:1 front and back slopes assumed typical)	Ln.Ft.	\$1.35	2,500	\$3,400	10	\$390
5	600	Terrace	Narrow-based (> 8% slope, 2.5ft. height, and approximately 2:1 front and back slopes assumed typical)	Ln.Ft.	\$1.45	2,500	\$3,600	10	\$420
<b>606 Subsurface Drain</b>									
1	606	Subsurface Drain	Below ground installation of HDPE/corrugated plastic pipe, single-wall, ≤ 6 inch diameter	Ln.Ft.	\$3.64	2,000	\$7,300	20	\$480

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2	606	Subsurface Drain	Below ground installation of HDPE/corrugated plastic pipe with a sand envelope, single-wall, ≤ 6 inch diameter	Ln.Ft.	\$5.50	2,000	\$11,000	20	\$730
3	606	Subsurface Drain	Below ground installation of HDPE/corrugated plastic pipe, single-wall, > 6 inch diameter	Ln.Ft.	\$6.28	1,000	\$6,300	20	\$420
4	606	Subsurface Drain	Below ground installation of HDPE/corrugated plastic pipe, double-wall, > 6 inch diameter	Ln.Ft.	\$13.37	1,000	\$13,400	20	\$880
<b>612 Tree and Shrub Establishment</b>									
1	612	Tree and Shrub Establishment	Plug conifers, hand plant (350 trees/acre assumed)	Acre	\$150	40	\$6,000	15	\$500
2	612	Tree and Shrub Establishment	Bare root conifers, hand plant (450 trees/acre assumed)	Acre	\$81	40	\$3,200	15	\$260
3	612	Tree and Shrub Establishment	Bare root conifers, machine plant (450 trees/acre assumed)	Acre	\$80	40	\$3,200	15	\$260
4	612	Tree and Shrub Establishment	Bare root hardwoods, hand plant (110 trees/acre assumed), with tubes	Acre	\$555	10	\$5,600	15	\$460
5	612	Tree and Shrub Establishment	Bare root hardwoods, hand plant (150 trees/acre assumed), with tubes	Acre	\$700	10	\$7,000	15	\$580
6	612	Tree and Shrub Establishment	Bare root hardwoods, hand plant (300 trees/acre assumed), with tubes	Acre	\$1,520	10	\$15,200	15	\$1,250
7	612	Tree and Shrub Establishment	Longleaf Pine Tree Planting (hand planting)	Acre	\$175	10	\$1,800	15	\$150
8	612	Tree and Shrub Establishment	Shortleaf Pine Tree Planting (hand planting)	Acre	\$50	15	\$800	15	\$70
9	612	Tree and Shrub Establishment	Mixed Shrub Seedlings high diversity (870 shrubs/acre), no tubes	Acre	\$1,410	15	\$21,200	15	\$1,750
10	612	Tree and Shrub Establishment	Mixed Shrub Seedlings low diversity (870 shrubs/acre), no tubes	Acre	\$950	15	\$14,300	15	\$1,180
<b>614 Watering Facility</b>									
1	614	Watering Facility	Converted heavy equipment tire, 8ft. Diameter assumed	Each	\$1,630	1	\$1,600	20	\$110
2	614	Watering Facility	2-Hole - Freeze Proof Trough (includes gravel and concrete pad)	Each	\$1,490	1	\$1,500	20	\$100
3	614	Watering Facility	4-Hole - Freeze Proof Trough (includes gravel and concrete pad)	Each	\$1,900	1	\$1,900	20	\$130
4	614	Watering Facility	100-500gallon tanks (includes gravel and concrete pad)	Gal.	\$4.13	300	\$1,200	20	\$80
5	614	Watering Facility	500-1,000gallon tanks (includes gravel and concrete pad)	Gal.	\$3.86	500	\$1,900	20	\$130
6	614	Watering Facility	1,000-1,500gallon tanks (includes gravel and concrete pad)	Gal.	\$1.12	1,200	\$1,300	20	\$90
7	614	Watering Facility	> 1,500gallon tanks (includes gravel and concrete pad)	Each	\$2,400	1	\$2,400	20	\$160
8	614	Watering Facility	Livestock watering ramp (rock riprap, 6" gravel and geotextile fabric)	Sq.Ft.	\$1.87	640	\$1,200	20	\$80
9	614	Watering Facility	Livestock watering ramp (rock riprap, 6" gravel, geocell and geotextile fabric)	Sq.Ft.	\$4.77	640	\$3,050	20	\$200
10	614	Watering Facility	Small Portable troughs for rotational grazing (typically 50-100 gallon capacity made of plastic, heavy duty rubber or galvanized sheet metal)	Each	\$120	1	\$120	20	\$10
<b>620 Underground Outlet</b>									
1	620	Underground Outlet	Pipe, no inlet, 6 inches or less	Ln.Ft.	\$4.95	300	\$1,485	20	\$100

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2	620	Underground Outlet	Pipe, drop inlet, > 6 inches or < 12 inches	Ln.Ft.	\$9.15	300	\$2,745	20	\$180
3	620	Underground Outlet	Pipe, drop inlet, > 12 inches	Ln.Ft.	\$14.64	300	\$4,392	20	\$290
4	620	Underground Outlet	Pipe, riser, 6 inches or less	Ln.Ft.	\$5.29	300	\$1,587	20	\$100
5	620	Underground Outlet	Pipe, riser, > 6 inches or < 12 inches	Ln.Ft.	\$9.69	300	\$2,907	20	\$190
6	620	Underground Outlet	Pipe, riser, > 12 inches	Ln.Ft.	\$17.02	300	\$5,106	20	\$340
7	620	Underground Outlet	Pipe, drop inlet, 6 inches or less	Ln.Ft.	\$10.67	500	\$5,335	20	\$350
8	620	Underground Outlet	Pipe, drop inlet, > 6 inches or < 12 inches	Ln.Ft.	\$11.79	300	\$3,537	20	\$230
<b>629 Waste Treatment</b>									
1	629	Waste Treatment	Milking Parlor Waste Treatment System with Dosing System and Bed	Gal./day	\$46.90	500	\$23,450	10	\$2,720
2	629	Waste Treatment	Milking Parlor Waste Treatment System with Dosing System only	Gal./day	\$21.50	500	\$10,750	10	\$1,250
<b>632 Waste Separation Facility</b>									
1	632	Waste Separation Facility	Mechanical manure/solids/nutrients separator for liquid manure - small ( ≤ 100 hd.)	Each	\$35,000	1	\$35,000	15	\$2,890
2	632	Waste Separation Facility	Mechanical Manure/Solids Separator for liquid manure - med.-large ( > 100 hd.)	Each	\$55,000	1	\$55,000	15	\$4,540
3	632	Waste Separation Facility	Passive manure/solids settling lane/earthen	Cu.Ft.	\$0.45	30,000	\$13,500	15	\$1,110
5	632	Waste Separation Facility	Passive manure/solids settling lane/concrete basin with multiple cells	Cu.Ft.	\$3.97	26,250	\$104,213	12	\$10,340
6	632	Waste Separation Facility	Passive manure/solids settling basin/concrete basin	Cu.Ft.	\$7.27	1,800	\$13,086	15	\$1,080
<b>633 Waste Recycling (formerly Waste Utilization)</b>									
1	633	Waste Recycling	Dry poultry spreading	Acre	\$34	20	\$680	1	\$700
2	633	Waste Recycling	Liquid dairy spreading	Acre	\$13	20	\$260	1	\$270
<b>634 Waste Transfer</b>									
1	634	Waste Transfer	Wastewater catch basin, less than or equal to 1,000 gal.	Gal.	\$7.65	1,000	\$7,650	15	\$630
2	634	Waste Transfer	Wastewater catch basin, > 1,000 to 5,000 gal.	Gal.	\$3.27	4,300	\$14,061	15	\$1,160
3	634	Waste Transfer	Wastewater catch basin, 5,000 gal. and larger	Gal.	\$2.47	8,600	\$21,242	15	\$1,750
4	634	Waste Transfer	Medium sized wastewater catch basin with 6 inch conduit transfer pipe to waste storage pond	Gal.	\$4.16	4,300	\$17,888	15	\$1,480
5	634	Waste Transfer	Large catch basin, 8 inch pipe to treatment, plus 6 inch pipe to storage.	Gal.	\$3.34	8,600	\$28,724	15	\$2,370
6	634	Waste Transfer	Concrete Channel (slab, curb and footing on each side of slab)	Sq.Ft.	\$12.92	1,200	\$15,504	15	\$1,280
7	634	Waste Transfer	Concrete Channel, push-off wall at pond and safety gate	Sq.Ft.	\$15.48	1,200	\$18,576	15	\$1,530
8	634	Waste Transfer	Concrete channel (slab with curb) to push off to medium sized wastewater reception pit	Sq.Ft.	\$20.40	1,200	\$24,480	15	\$2,020

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9	634	Waste Transfer	Concrete channel (slab with curb) to push off to medium sized collection basin where waste is transferred to wastewater reception pit with a 6" low pressure pipe	Sq.Ft.	\$24.00	1,200	\$28,800	15	\$2,380
10	634	Waste Transfer	Small Flush System, less than 1000 gallon per flush to reception pit, 8 inch pipe to storage.	Gal.	\$14.77	1,000	\$14,770	15	\$1,220
11	634	Waste Transfer	Wastewater Flush Transfer System, Pipes only, 12 inch diameter	Ln.Ft.	\$55.00	300	\$16,500	15	\$1,360
12	634	Waste Transfer	Hopper gravity inlet, 24 inch diameter HDPE pipeline, to waste storage facility	Ln.Ft.	\$124	80	\$9,920	15	\$820
13	634	Waste Transfer	30 inch HDPE conduit, gravity flow, from an existing inlet structure to site of treatment or storage	Ln.Ft.	\$94	150	\$14,100	15	\$1,160
14	634	Waste Transfer	12 inch diameter, Low pressure flow, PVC conduit	Ln.Ft.	\$51	300	\$15,300	15	\$1,260
15	634	Waste Transfer	10 inch diameter, Low pressure flow PVC pipeline, from waste storage pond to land application site	Ln.Ft.	\$26.00	1,000	\$26,000	15	\$2,150
16	634	Waste Transfer	6 inch diameter, Pressure flow PVC pipeline, from waste storage pond to land application site	Ln.Ft.	\$14.45	1,000	\$14,450	15	\$1,190
17	634	Waste Transfer	Agitator, small, mixing contents of a reception pit that is no more than than 10 ft. deep	Each	\$11,780	1	\$11,780	15	\$970
18	634	Waste Transfer	Agitator, medium, mixing contents of a reception pit that is 10 ft to 15 ft. deep	Each	\$18,180	1	\$18,180	15	\$1,500
19	634	Waste Transfer	Agitator, large, mixing contents of a reception pit that is over 15 ft. deep	Each	\$26,580	1	\$26,580	15	\$2,190
<b>638 Water and Sediment Control Basin</b>									
1	638	Water and Sediment Control Basin	Earthen structure - dugout or embankment - earth work only, ≤ 200cu.yds. earth moved	Cu.Yd.	\$3.20	200	\$640	10	\$70
2	638	Water and Sediment Control Basin	Earthen structure - dugout or embankment - earth work only, > 200cu.yds. earth moved	Cu.Yd.	\$2.60	700	\$1,820	10	\$210
3	638	Water and Sediment Control Basin	Earthen structure - dugout or embankment - earth work only, > 200cu.yds. earth moved, topsoil removed, stockpiled and replaced following construction	Cu.Yd.	\$2.90	700	\$2,030	10	\$240
4	638	Water and Sediment Control Basin	Earthen structure - dugout or embankment with water level control (pipe and riser)	No	\$2,690	1	\$2,700	10	\$310
<b>642 Water Well</b>									
1	642	Water Well	Plastic Casing for unconsolidated geologic sites with unstable rock formations	Ln.Ft.	\$31.00	400	\$12,400	20	\$820
2	642	Water Well	Steel casing for consolidated geologic sites with stable rock formations	Ln.Ft.	\$24.75	450	\$11,100	20	\$730
<b>643 Restoration and Management of Rare and Declining Habitats</b>									
1	643	Restoration and Management of Rare and Declining Habitats	Habitat monitoring and management, Low Intensity & Complexity, no foregone income	Acre	\$3.50	160	\$600	1	\$620
2	643	Restoration and Management of Rare and Declining Habitats	Oyster reef restoration using planted oyster shells on a new site	Acre	\$15,585	1	\$15,600	1	\$16,040

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3	643	Restoration and Management of Rare and Declining Habitats	Oyster reef enhancement at a site with some existing cultch using planted oyster shells	Acre	\$7,600	1	\$7,600	1	\$7,810
<b>644 Wetland Wildlife Habitat Management</b>									
1	644	Wetland Wildlife Habitat Management	Habitat Monitoring and Management, Medium Intensity and Complexity	Acre	\$13.10	160	\$2,100	1	\$2,160
2	644	Wetland Wildlife Habitat Management	Development of Shallow Micro-Topographic Features with Normal Farming Equipment.	Acre	\$41.62	20	\$830	1	\$850
3	644	Wetland Wildlife Habitat Management	Development of Deep Micro-Topographic Features with Heavy Equipment.	Acre	\$110	20	\$2,200	1	\$2,260
4	644	Wetland Wildlife Habitat Management	Seasonal Water Management for Wildlife	Cu.Yd.	\$6.00	250	\$1,500	1	\$1,540
5	644	Wetland Wildlife Habitat Management	Water level control structure (pipe and riser)	Each	\$2,730	1	\$2,730	1	\$2,810
<b>645 Upland Wildlife Habitat Management</b>									
1	645	Upland Wildlife Habitat Management	Habitat Monitoring and Management, Medium Intensity and Complexity	Acre	\$13.10	160	\$2,100	1	\$2,160
2	645	Upland Wildlife Habitat Management	Development of Shallow Micro-Topographic Features with Normal Farming Equipment.	Acre	\$24	20	\$480	1	\$490
3	645	Upland Wildlife Habitat Management	Development of Deep Micro-Topographic Features with Heavy Equipment.	Acre	\$110	20	\$2,200	1	\$2,260
<b>646 Shallow Water Development and Management</b>									
1	646	Shallow Water Development and Management	Shallow water management (water level management, low intensity)	Acre	\$66.32	1	\$70	5	\$20
2	646	Shallow Water Development and Management	Shallow water management (water level management, high intensity)	Acre	\$186.69	1	\$190	5	\$40
<b>647 Early Successional Habitat Development and Management</b>									
1	647	Early Successional Habitat Development and Management	Habitat mowing	Acre	\$38.50	2	\$80	1	\$80
2	647	Early Successional Habitat Development and Management	Habitat disking (custom operator)	Acre	\$100	2	\$200	1	\$210
3	647	Early Successional Habitat Development and Management	Early Successional Habitat Forest Opening (patch clearcuts of 2 acres or less assumed typical)	Acre	\$864	2	\$1,730	5	\$380
4	647	Early Successional Habitat Development and Management	Edge Feathering (cutback borders between forest cover and open land to create a mosaic of cover from open early successional to shrub to mature forest cover)	Acre	\$490	2	\$980	5	\$210
5	647	Early Success. Hab. Development/Management	Herbicide Application - woody species spot treatment (typical setting for this scenario is at the edge of crop fields, the edge of pastures, the edge of forests, and in odd areas on agricultural operations where early suc. hab. can be created and/or maintained)	Acre	\$50	2	\$100	1	\$100

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Scenario No.	Practice Code	Practice Name	Practice Scenario	Units	Estimated Average Cost/Unit	Typical Units Installed	Estimated Total Installation Cost (rounded)	Assumed Practice Lifespan in Years	Estimated Average Annual Cost (amortized practice cost) <sup>1/</sup>
6	647	Early Success. Hab. Development/Management	Herbicide Application - non-woody species treatment	Acre	\$22	2	\$40	1	\$40
7	647	Early Success. Hab. Development/Management	Forestry mulching, ≤ 6" dbh woody material	Acre	\$550	15	\$8,250	1	\$8,480
<b>649 Wildlife Habitat Structures</b>									
1	649	Structures for Wildlife	Nesting/habitat box for birds, pollinators, bats, etc., small, no pole (directly mounted to a tree or other support feature)	Each	\$40	3	\$100	5	\$20
2	649	Structures for Wildlife	Nesting/habitat box for birds, pollinators, bats, etc., small, with treated wood pole (6" x 8' pole assumed)	Each	\$60	3	\$180	5	\$40
3	649	Structures for Wildlife	Nesting/habitat box for birds, pollinators, bats, etc., large, no pole (directly mounted to a tree or other support feature)	Each	\$80	3	\$200	5	\$40
4	649	Structures for Wildlife	Nesting/habitat box for birds, pollinators, bats, etc., large, with galvanized metal pole (1.25" x 10' pole assumed) and a predator guard	Each	\$350	3	\$1,050	5	\$230
5	649	Structures for Wildlife	Escape ramp toetrofit an existing watering trough/tank/reservoir to reduce wildlife mortality and maintain water quality within the watering facility	Each	\$33	6	\$200	5	\$40
6	649	Structures for Wildlife	Fence markers, vinyl markers to increase visibility/reduce mortality (every 3' assumed typical)	Ln.Ft.	\$0.15	1,320	\$200	10	\$20
7	649	Structures for Wildlife	Brush-pile, small (10' x 20' composed of interlocking tree limbs < 12" diameter)	Each	\$35	1	\$40	5	\$10
8	649	Structures for Wildlife	Brush-pile, large (30' x 50' composed of interlocking tree limbs < 12" diameter)	Each	\$135	1	\$140	5	\$30
9	649	Structures for Wildlife	Rock structure, small (7' long x 5' wide x 3' high), comparable functions to a brush-pile, but more enduring made from 4"-8" riprap; approx. 5 tons of rock/pile;	Each	\$600	1	\$600	25	\$30
<b>654 Road/Trail/Landing Closure and Treatment</b>									
1	654	Road/Trail/Landing Closure and Treatment	Road/Trail Abandonment/Rehabilitation (Light)	Ln.Ft.	\$2.80	500	\$1,400	10	\$160
2	654	Road/Trail/Landing Closure and Treatment	Road/Trail removal and restoration (Vegetative)	Ln.Ft.	\$2.71	500	\$1,360	10	\$160
<b>657 Wetland Restoration</b>									
1	657	Wetland Restoration	Mineral Flat	Acre	\$15	160	\$2,370	15	\$200
2	657	Wetland Restoration	Riverine Levee Removal and Floodplain Features	Cubic Yard	\$2	16,520	\$36,180	15	\$2,990
3	657	Wetland Restoration	Depression Sediment Removal and Ditch Plug (10 acres of wetlands; 15 acre tract)	Tract Acres	\$1,145	15	\$17,180	15	\$1,420
4	657	Wetland Restoration	Estuarine Fringe Levee Removal	Acre	\$17	120	\$2,040	15	\$170
5	657	Wetland Restoration	Riverine Channel and Floodplain Restoration	Acre	\$462	15	\$6,930	15	\$570

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6	657	Wetland Restoration	Crush tile/fill existing ditch (1 acre of wetlands, 20 acre tract)	Cu.Yd.	\$4.80	165	\$790	15	\$70
7	657	Wetland Restoration	Dike Breach, ditch fill and creation of surface macrofeatures	Cubic Yard	\$2.07	16,666	\$34,500	15	\$2,850
8	657	Wetland Restoration	Macro-Features	Cubic Yard	\$2.00	16,133	\$32,270	15	\$2,660
9	657	Wetland Restoration	Fill shallow drainage ditches, no macro features (40 acre farmed wetland typical)	Cu.Yd.	\$5.65	887	\$5,010	15	\$410
<b>658 Wetland Creation</b>									
1	658	Wetland Creation	Wetland Creation, Wildlife Pond (10 acre wetland is created)	Cu.Yd.	\$2.08	16,133	\$33,560	15	\$2,770
2	658	Wetland Creation	Ephemeral Pools	Sq.Ft.	\$0.40	2,500	\$1,000	15	\$80
3	658	Wetland Creation	Shallow Water Areas	Wetland ac.	\$3,669	0.50	\$1,830	15	\$150
4	658	Wetland Creation	Earthen Embankment Impoundment	Ln.Ft.	\$33	250	\$8,250	15	\$680
5	658	Wetland Creation	Low Earthen Embankment (2ft. high or less)	Ln.Ft.	\$17	250	\$4,330	15	\$360
6	658	Wetland Creation	Excavated shallow seasonal pools for amphibians	Sq.Ft.	\$0.32	11,000	\$3,520	15	\$290
7	658	Wetland Creation	Excavated seasonal pools w/ liners for amphibians	Sq.Ft.	\$0.41	11,400	\$4,670	15	\$390
8	658	Wetland Creation	Excavated seasonal pools in non-hydric soil sites	Sq.Ft.	\$0.44	5,500	\$2,420	15	\$200
<b>658 Wetland Enhancement</b>									
1	659	Wetland Enhancement	Mineral Flat	Acre	\$14.81	160.00	\$2,370	15	\$200
2	659	Wetland Enhancement	Riverine Levee Removal and Floodplain Features	Cubic Yard	\$2.19	16,520.00	\$36,180	15	\$2,990
3	659	Wetland Enhancement	Depression Sediment Removal and Ditch Plug (10 acres of wetlands)	Cu.Yd.	\$2.13	8,067	\$17,180	15	\$1,420
4	659	Wetland Enhancement	Estuarine Fringe Levee Removal	Acre	\$16.98	120	\$2,040	15	\$170
5	659	Wetland Enhancement	Riverine Channel and Floodplain Restoration	Acre	\$462.25	15	\$6,930	15	\$570
6	659	Wetland Enhancement	Excavated seasonal pools in hydric soil sites	SqFt	\$0.50	5,500	\$2,750	15	\$230
<b>660 Tree and Shrub Pruning</b>									
1	660	Tree and Shrub Pruning	Hand shearing of Christmas trees	Acre	\$264	10	\$2,640	10	\$310
<b>666 Forest Stand Improvement</b>									
1	666	Forest Stand Improvement	Pre-commercial thinning, hand tools	Acre	\$270	20	\$5,400	10	\$630
2	666	Forest Stand Improvement	Pre-commercial thinning, mechanical, hardwoods	Acre	\$135	20	\$2,700	10	\$310
3	666	Forest Stand Improvement	Pre-commercial thinning, mechanical,pines	Acre	\$90	40	\$3,600	10	\$420
4	666	Forest Stand Improvement	Chemical, single-stem treatment, spot/partial-coverage ground application	Acre	\$290	10	\$2,900	10	\$340
5	666	Forest Stand Improvement	Chemical, full-coverage aerial application on pines	Acre	\$82	40	\$3,280	10	\$380
6	666	Forest Stand Improvement	Competition Control, Mechanical, Light Equipment	Acre	\$38	10	\$380	10	\$40

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7	666	Forest Stand Improvement	Competition Control, Mechanical, Heavy Equipment	Acre	\$512	10	\$5,120	10	\$590
8	666	Forest Stand Improvement	Patch clearcuts of 2 acres or less for wildlife habitat creation	Acre	\$200	10	\$2,000	10	\$230
9	666	Forest Stand Improvement	Thinning for Health and Wildlife (combination of hand tool and chemical treatments)	Acre	\$325	10	\$3,250	10	\$380
<b>670 Lighting System Improvement</b>									
1	670	Lighting System Improvement	Lighting - LED bulbs	Each	\$21	125	\$2,600	10	\$300
2	670	Lighting System Improvement	Lighting - LED high bay lighting fixtures	Each	\$1,841	6	\$11,000	10	\$1,280
3	670	Lighting System Improvement	Lighting - LED dusk to dawn flood lighting fixtures	Each	\$1,082	3	\$3,200	10	\$370
4	670	Lighting System Improvement	Lighting - Linear LED fixtures	Each	\$65	6	\$390	10	\$50
<b>672 Building Envelope Improvement</b>									
1	672	Building Envelope Improvement	Building Envelope - blown-in attic insulation (minimum R-7)	Cu.Ft.	\$0.87	20,000	\$17,400	10	\$2,020
2	672	Building Envelope Improvement	Building Envelope - Wall Insulation (closed cell spray foam, min. 1" thick to achieve R-7)	Sq.Ft.	\$1.95	5,770	\$11,300	10	\$1,310
3	672	Building Envelope Improvement	Building Envelope - Wall Insulation (fiberglass batts, min. 3.5" thick to achieve R-11)	Sq.Ft.	\$1.69	5,770	\$9,800	10	\$1,140
4	672	Building Envelope Improvement	Building Envelope - Thermal blankets, insulated curtains and screens for greenhouses	Sq.Ft.	\$1.99	25,000	\$49,800	10	\$5,780
5	672	Building Envelope Improvement	Insulated curtains and/or sidewalls for poultry houses	Sq.Ft.	\$2.83	300	\$800	10	\$90
6	672	Building Envelope Improvement	Greenhouse - Insulate Unglazed Walls	Sq.Ft.	\$0.30	25,000	\$7,500	10	\$870

1/ Assumed interest rate used for Average Annual Cost calculations based upon OMB's Nominal Discount Rate (Circular A-94, 10year rate): 2.80% \* 2015  
 Agricultural input price inflation thus far for 2015 vs. 2014 based on the USDA/Producer Prices Paid Index (USDA/PPPI): -2.70% \* 2000 Index  
 Agricultural product price inflation thus far for 2015 vs. 2014 based on the USDA/Producer Prices Received Index (USDA/PPRI): 1.0% \* 2000 Index  
 Construction cost inflation thus far for 2015 over 2014 based upon the Engineering News Record's Construction Cost Index (ENR/CCI): 1.67% \* 1913 Index  
 General economic inflation to consumers thus far for 2015 over 2014 based upon the US Bureau of Labor Statistic's Consumer Price Index (CPI): 1.33% \* 2015

Price base: September 2015