



New Jersey Farm Bill Programs 2010 Practice Catalog

This document lists the conservation practices that are included in NJ's Agricultural Management Assistance (AMA), Environmental Quality Incentives (EQIP) and Wildlife Habitat Incentive (WHIP) financial assistance programs. Not all practices are available in all programs.

What conservation practices may be eligible for inclusion in a program contract is based on the land use and resource concerns identified during the development of a conservation plan. These land uses are indicated by the 'cropland', 'organic', 'livestock', 'woodland' or 'wildlife' columns.

By signing a contract, the applicant agrees to accept payment at the rate indicated for the unit quantity contracted. The "HU \$" column shows the payment rate for applicants who self-certify as a member of a historically underserved group, which includes limited resource, socially disadvantaged, or beginning farmers. If a payment is indicated in the AMA, EQIP or WHIP column, HU applicants would be eligible in that program for the HU payment rate.

Payment rates are set at a percent of the unit cost to implement the practice. Unit costs are based on the typical installation and include materials, labor, installation, and mobilization for all practices. When applicable, cost related to foregone income and risk are included for practices with a lifespan of one year. Not included in the unit cost is any administration or permit fees, or annual operation and maintenance expenses.

Receipt of a program payment indicates the applicant's willingness and obligation to maintain the practice for the lifespan indicated in this document.

Applications for practices in this catalog are accepted through-out the year. Applications are grouped for ranking, generally once a year, with ranking period cut-offs announced by the State Technical Committee and published on the NJ Programs web page (<http://www.nj.nrcs.usda.gov/programs>). Applications received after the announced cut-off are automatically held for consideration during the next ranking period.

An exception to this procedure happens when the applicant has an active contract with NRCS that is not in compliance with the practice schedule or other contract condition. The application will be held in these cases until all existing contracts are in compliance with the applicable contract and program rules.

Certain practices are eligible for multiple payments over a maximum of three years. Except for the irrigation water management practice contracted with a new or upgraded irrigation system, it is the applicant's choice how many years are contracted (one, two or three). However, in all cases when multiple years are chosen they will be consecutive years.

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
472 10 Access Control (ac)													
472		Barrier to Protect Critical Areas			X		X	4.78	ft	3.59	3.59	3.59	4.30
A permanent barrier to exclude livestock from critical areas, such as streams or wetlands. Cost is based on treated wooden posts, 8' on center, one top wood rail, 48" woven wire, and all associated hardware and bracing.													
472		Barrier to Protect New Seedlings				X	X	411.60	ac	-	246.96	246.96	349.86
Following harvest of an established woodlot according to a Forest Management Plan, the canopy is opened sufficiently to allow understory regeneration of desired tree species. To protect the regeneration from deer browse, plastic deer fence 7-8' high is installed by attaching to standing trees (of at least 4" dbh) surrounding the perimeter of the open canopy area. Cost is based on a minimum 7' tall plastic fence enclosure attached with staples with a smooth wire strung along the baseline to prevent penetration. Not for use in riparian plantings where tree guards are included in the cost scenario.													
309 15 Agrichemical Handling Facility (ea)													
309		Unroofed Facility	X					18.50	sf	-	13.88	-	16.65
Unroofed containment facility for agricultural chemicals with a curbed concrete floor and sump. Cost is based on a typical installation within an existing farm barnyard area or along an existing access road. Includes site preparation, gravel subbase, reinforced concrete slab with access apron, curb and sump, concrete sealant, emergency pump tank, pump, eyewash station and sink. Utilities (water, electric, lighting, heating), storage units, and/or loading dock are at owner's expense.													
309		Roofed Facility	X					35.00	sf	-	26.25	-	31.50
Roofed containment facility for agricultural chemicals with a curbed concrete floor and sump. Cost is based on a typical installation within a farm barnyard area or along an existing access road. Includes site preparation, gravel sub base, reinforced concrete slab with access apron, curb and sump, concrete sealant, emergency pump tank, pump, eye wash station, and sink. Roof includes materials and installation of footings, posts, headers, trusses/rafters/hoops, purlins, and roof sheathing or cover. Siding, utilities (water, electric, lights, heats), shelves/storage cabinets, and loading dock are at operator's expense. Does not include permit fees. Roof runoff management, if needed to control erosion, is not included.													
575 10 Animal Trails and Walkways (ft)													
575		Connecting Paths			X			2.85	sf	1.71	1.71	-	2.42
A gravel stabilized lane installed to facilitate animal movement in a rotational grazing system where constant animal travel has led to compaction and erosion concerns. Cost is based on a 6-8' wide walkway, and includes minor grading, installation of geotextile and gravel, with smoothing and compaction of the gravel by machine roller. Does not include fence (std. 382).													
370 1 Atmospheric Resource Quality Management (ac)													
370		Renewable Power for Livestock Water			X			3,607.00	ea	2,705.25	2,705.25	-	3,246.30
A stand-alone solar power source installed for a livestock operation where water is to be pumped to permanent watering facilities, installation of buried electric lines is cost-prohibitive, and other sources of power such as diesel pumps would cause air quality issues (PM 2.5 and ozone). The system will be sized to power only pumping plants of 5 HP or less.													
370		Tier 3 Engine, 75 to 180 HP, for Irrigation	X					100.00	HP	-	75.00	-	90.00
A 5-year old or older functioning 75 - 180 HP gas or diesel engine being used to pump irrigation water is removed from use and permanently disabled from any further ability to function. It is replaced by the same HP new diesel engine that meets EPA Tier 3 air quality standards, to irrigate the same field(s) and system while reducing PM 2.5 emissions. A larger engine could be purchased at the operator's expense.													
370		Tier 4 Engine, 25 to 74 HP, for Irrigation	X					170.00	HP	-	127.50	-	153.00
A 5-year old or older functioning 25 - 74 HP gas or diesel engine being used to pump irrigation water is removed from use and permanently disabled from any further ability to function. It is replaced by the same HP new diesel engine that meets EPA Tier 4 air quality standards, to irrigate the same field(s) and system while reducing PM 2.5 emissions. A larger engine could be purchased at the operator's expense.													
314 1 Brush Management (ac)													
314		Chemical Control			X	X		93.78	ac	56.27	56.27	-	79.71
Properly labeled herbicides are used to control invasive herbaceous or woody species on managed forest lands and pastures, for the benefit of desired species. Cost is based on machine spray boom application of 20 acres or backpack spot-spraying of 5 acres and cost of herbicides. Field is marked for re-entry time as required by state law. Does not include applicator license fees. Not applicable on land contracted for grassland establishment (std 327, 386, 393, 390, 391, 512), prescribed grazing (std 528) or forest stand improvement (612, 666) in the establishment year, as control of invasives is included in those scenarios.													
314		Hand Clearing - Vegetation Establishment			X	X		493.60	ac	-	296.16	296.16	419.56
Sparse woody vegetation with less than 5 years growth is manually removed from a recently abandoned agricultural field to prepare the field for an alternate planting to benefit livestock or wildlife. Requires hand labor with pruning shears or saws to remove top growth, and axes or shovels to break surface roots. Limited to 5 acres of application due to hand labor requirement. Alternate vegetation must be established within 12 months of the Brush Management treatment.													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
314		Brush Hogging - Vegetation Establishment			X	X	X	97.80	ac	-	58.68	58.68	83.13
Woody vegetation with less than 5 years growth is removed from an abandoned agricultural field by a brush hog machine to prepare the field for an alternate planting to benefit livestock or wildlife. Woody growth density varies across the field, and more than half of the acres require a double pass of the brush hog to completely kill the vegetation. Includes brush hog use only. Does not include removal of brush or seedbed preparation. Alternate vegetation must be established within 12 months of the Brush Management treatment.													
314		Forestry Mowing				X	X	1,351.20	ac	-	810.72	810.72	1,148.52
Woody vegetation with 5 to 15 years growth is removed from several small areas within an abandoned agricultural field or woodlot by a hydro-ax or similar machine to prepare the field for an alternate planting to benefit woodlands and/or wildlife. Woody growth is dense enough to require a double pass of the machine to completely kill the vegetation. Does not include root raking or other stump removal. Cost-effectiveness precludes implementing this practice on more than 10 acres. Alternate vegetation must be established within 12 months of the Brush Management treatment.													
360 15 Closure of Waste Impoundments (ea)													
360		Waste Facility Closure			X			10,000.00	ea	-	7,500.00	-	9,000.00
An existing open waste lagoon or waste storage pond is no longer used for its intended purpose or poses a risk to water quality if breached during a storm event. Cost is based on closing the facility by draining and cleaning sludge from the facility; removing the transfer pipe, synthetic liner, embankments, and backfill; regrading of the impoundment areas with on-site spoil disposal; and seeding with mulch of all disturbed areas. Does not include disposal of the liner or pipe off-site, if required. Payment is capped.													
317 15 Composting Facility (ea)													
317		Windrows - Graded Surface			X			0.10	sf	-	0.06	-	0.09
Where base soils are suitable, shape and grade a compost pad for windrow-type composting of animal wastes. Cost is based on site preparation with a dozer/road grader, excess spoil removal, final grading, and seeding with mulch of all disturbed areas adjacent to the compost pad. Does not include obstruction removal (std 500), clearing, roof, access road, solids separation (std 632), or vegetated treatment area (std 635). Typically limited to one acre or smaller in size.													
317		Windrows - Improved Surface			X			2.85	sf	-	1.71	-	2.42
Where based soils are not suitable, improve the surface to establish a windrow-type compost system for animal wastes. Cost is based on a well-compacted 6" thick layer of select material brought in from off-site underlain by geotextile, site preparation with a dozer/road grader, excess spoil removal, installation of materials, final grading, and seeding with mulch of all disturbed areas. Does not include obstruction removal (std 500), clearing, roof, access road, solids separation (std 632), or vegetated treatment area (std 635). Typically limited to 0.5 acres in size.													
317		Compost Bins			X			15.71	sf	-	9.43	-	13.35
Where wastes will be moved from one bin to another to aerate the piles, install a 3-sided concrete structure for composting of animal wastes. Cost is based on use of precast concrete blocks, and includes site work, gravel subbase material, poured concrete floor with welded wire mesh reinforcement, final grading, installation of blocks, gravel apron, and seeding with mulch of all disturbed areas. Does not include roof, solid separation (std 632), or vegetated treatment area (std 635).													
317		Aerated Piles			X			16.73	sf	-	10.04	-	14.22
For active composting of animal wastes, install a concrete surface with an integral piping and blower system for for static aerated piles. Cost is based on installation of the aeration system and all of the elements of the concrete pad, including areas for stockpiling and curing. Typical installation does not require walls to separate piles; if desired these are included at operator expense. Does not include cost of utilities (electric or water), a waste facility cover (std 367), solids separation (std 632), or vegetative treatment area (std 635).													
327 5 Conservation Cover													
327		Pollinator Habitat Establishment	X	X	X		X	902.00	ac	676.50	676.50	676.50	811.80
Typically, several 1/4 acre areas around the farm are converted to native herbaceous vegetation and shrubs to attract and support native pollinators. Cost is based on a specialized seeding followed by hand planting of shrubs, using at least 3-4 lb/acre of a variety of wildflowers in the seed mix and 20 shrubs planted in random groups across the areas. Includes a pre-seeding herbicide application, field disking to prepare the seedbed, seed and container shrub purchase, herbaceous seeding with specialized equipment able to handle the small and light wildflower seed, hand planting of shrubs, one post-seeding herbicide application, and one mowing during initial year for weed control.													
327		Herbaceous Plugs (sites < 1 ac)					X	1.82	ea	-	-	1.37	1.64
On small areas within a larger habitat project, use native herbaceous plugs planted on less than 1 acre of former cropland to attract specific species of special concern. Cost is based on a pre-plant herbicide application, light roto-till to loosen planting area and bring additional seed stock to the surface, plug purchase, and hand planting of materials. Does not include any fertilizer or herbaceous seed mix.													
327		Wildflower Meadow (sites >= 1 ac)					X	408.75	ac	-	-	306.56	367.88
An active or abandoned agricultural field converted to native wildflowers and warm season grasses to benefit wildlife. Cost is based on a 15 acre planting. Includes at least 2 lb/acre of a variety of wildflowers in the seed mix. Practice includes a pre-seeding herbicide application, field disking to prepare the seedbed, seed purchase, seeding with specialized equipment able to handle the small and light warm season seed, one post-seeding herbicide application, and one mowing during initial year for weed control.													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
327		Permanent Cover Between Rows	X	X				362.35	ac	271.76	271.76	-	326.12
<p>A permanent cool season cover planted between rows of a perennial crop to enhance soil quality, reduce erosion, and reduce herbicide use. Cost is based on a 25 acre conversion, with low-growing grass and legume species in the seed mix. Includes between-row disking to prepare the seedbed, seed purchase, planting, fertilizer application, one post-seeding herbicide application, and one mowing during initial year for weed control.</p>													
327		Hayland to Warm Season Grasses					X	385.05	ac	-	288.79	288.79	346.55
<p>An active hay field converted to native warm season grass and wildflowers to benefit wildlife. Cost is based on a 25 acre conversion, with not more than 1 lb/acre of wildflowers in the seed mix. Includes 2 pre-seeding herbicide applications, two field diskings to knock down the existing grasses and prepare the seedbed, seed purchase, seeding with specialized equipment able to handle the small and light warm season seed, one post-seeding herbicide application, and one mowing during initial year for weed control.</p>													
327		Cropland to Cool Season Grasses					X	333.55	ac	-	250.16	250.16	300.20
<p>An annually tilled cropland field converted to a cool season grass field for wildlife. Cost is based on a 25 acre conversion, with both native and naturalized species in the seed mix. Includes a pre-seeding herbicide application, field disking to prepare the seedbed, seed purchase, planting, one post-seeding herbicide application, and one mowing during initial year for weed control.</p>													
327		Cropland to Warm Season Grasses					X	311.25	ac	-	233.44	233.44	280.13
<p>An annually tilled cropland field converted to native warm season grass and wildflowers to benefit wildlife. Cost is based on a 25 acre conversion, with not include more than 1 lb/acre of wildflowers in the seed mix. Includes a pre-seeding herbicide application, field disking to prepare the seedbed, seed purchase, seeding with specialized equipment able to handle the small and light warm season seed, one post-seeding herbicide application, and one mowing during initial year for weed control.</p>													
328	1	Conservation Crop Rotation											
328		3-YR Rotation with Summer Fallow		X				37.03	ac	27.77	27.77	-	33.32
<p>On fields used for specialty crop production, or a grain-specialty crop rotation, implement a new 3-year crop rotation that includes a grass summer cover in one of the 3 years. The summer cover is grown for at least 4 months between April and October to build organic matter, reduce the use of supplemental fertilizers, and reduce weeds. Cost is based on the income foregone from the harvestable crop averaged over the 3-year rotation. Payments are made each year of the initial rotation cycle (total of 3 payments).</p>													
328		2-YR Rotation with Summer Fallow		X				55.54	ac	41.66	41.66	-	49.99
<p>On fields used for specialty crop production, or a grain-specialty crop rotation, implement a new 2-year crop rotation that includes a grass summer cover every other year. The summer cover is grown for at least 4 months between April and October to build organic matter, reduce the use of supplemental fertilizers, and reduce weeds. Cost is based on the income foregone from the harvestable crop averaged over the 2-year rotation. Payments are made each of the two years of the new rotation cycle (total of 2 payments).</p>													
340	1	Cover Crop (ac)											
340		Winter Cover Crop	X					71.50	ac	53.63	53.63	-	64.35
<p>A winter cover crop, typically a small grain, planted prior to November 1 (south of Route 1) or prior to October 15 (north of Route 1) to improve soil or air quality. Cost is based on cereal rye cover crop seeded at a rate of 2-3 bushels per acre. Includes one pass with a disk to prepare seedbed and planting, unless following a summer cover crop. When following summer cover, planting by no-till methods is required to preserve the organic matter benefit.</p>													
340		Organic Winter Cover Crop		X				82.10	ac	61.58	61.58	-	73.89
<p>An organic winter cover crop, typically a small grain, planted prior to November 1 (south of Route 1) or prior to October 15 (north of Route 1) to improve soil or air quality. Cost is based on cereal rye cover crop seeded at a rate of 3 bushels per acre. Includes one pass with a disk to prepare seedbed and planting, unless following a summer cover crop. When following summer cover, planting by no-till methods is required to preserve the organic matter benefit.</p>													
340		Legume Winter Cover	X	X				137.90	ac	103.43	103.43	-	124.11
<p>A winter legume cover crop planted prior to September 15 (south of Route 1) or prior to September 1 (north of Route 1) to improve soil or air quality. Cost is based on ladino clover seeded at 12 pounds per acre. Includes one pass with a disk to prepare seedbed and planting, unless following a summer cover crop. When following summer cover, planting by no-till methods is required to preserve the organic matter benefit.</p>													
340		Grass Summer Cover	X	X				95.90	ac	71.93	71.93	-	86.31
<p>A sudangrass cover crop planted as a summer fallow to improve soil or air quality. Cost is based on sudangrass seeded at 40 pounds per acre and managed according to Rutgers Bulletin FS994. Includes one pass with a disk to prepare seedbed, planting, and application of N fertilizer. Practice may be applied in conjunction with 328-Conservation Crop Rotation.</p>													
340		Organic Grass Summer Cover	X	X				101.40	ac	76.05	76.05	-	91.26
<p>An organic sudangrass cover crop planted as a summer fallow to improve soil or air quality. Cost is based on sudangrass seeded at 40 pounds per acre and managed according to Rutgers Bulletin FS994. Includes one pass with a disk to prepare seedbed, planting, and application of N fertilizer. Practice may be applied in conjunction with 328-Conservation Crop Rotation.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
340		Legume Summer Cover	X	X				119.50	ac	89.63	89.63	-	107.55
<p>A summer legume cover crop planted as a summer fallow to improve soil or air quality. Cost is based on hairy vetch seeded at 30 pounds per acre. Hairy vetch can be no-tilled, drilled into a prepared seedbed or broadcast. Drill seed at 15 to 20 lb./A, broadcast 25 to 30 lb./A. Select a higher rate if you are seeding in spring or summer. Plant vetch in early spring for summer growth; or in July if you want to kill or incorporate it in fall or for a winter-killed mulch. Cost includes one pass with a disk to prepare seedbed and planting.</p>													
342	10	Critical Area Planting (ac)											
342		Critical Area Planting	X	X	X	X	X	1,325.20	ac	993.90	993.90	993.90	1,192.68
<p>An area of herbaceous vegetation planted on an eroding area that requires minimal grading to eliminate rills or small gullies. Cost is based on a 100' x 100' area. Includes labor, equipment and materials to grade the area, prepare the seedbed, apply necessary nutrients and lime, plant a seed mix of native and/or introduced fescues, rye and clover, and apply mulch.</p>													
362	10	Diversion (ft)											
362		Diversion, Seeded and Mulched	X		X			5.87	ft	-	4.40	-	5.28
<p>A diversion channel with berm installed across a slope to divert water from a critical area. Cost is based on the equipment, labor and material to construct, seed and mulch a diversion 20'- 25' wide. Construction requires no cuts or fills greater than 3'. Does not include a provision for any crossing (std 561).</p>													
382	20	Fence (ft)											
382		High Tensile Fence			X			4.33	ft	1.95	1.95	-	3.03
<p>A permanent fence installed to enclose an area of land required to meet minimum grazing land requirements, and improve distribution and timing of livestock grazing. Total area fenced is limited to 1.5 acres per Animal Unit. Cost is based on treated wooden posts installed 2-1/2' into the ground and 80' on center, 3 strand high tensile wire, 2 access gates, and all associated hardware and bracing. Does not include any permanent interior division fences or electric chargers. Actual installation will comply with NRCS standard and will be based on animal type, and grazing management plan.</p>													
382		Barrier Fence			X			5.31	ft	2.39	2.39	-	3.72
<p>For horse operations where a substantial and visible fence is required to control the animals being grazed, a permanent fence is installed to enclose and/or divide pasture into smaller units to improve distribution and timing of livestock grazing. Payment rate also applies to bison/buffalo operations. Total area fenced is limited to 1.5 acres per Animal Unit. Cost is based on treated wooden posts installed 2-1/2' into the ground and 8' on center, one top wood rail, woven wire, 1 access gate per area, and all associated hardware and bracing. Actual installation will comply with NRCS standard and will be based on an approved grazing management plan.</p>													
382		Deer Control Fence - Organic Operations		X				5.33	ft	4.00	4.00	-	4.80
<p>A permanent fence installed to exclude nuisance deer from organic cropland. Practice payment is capped at \$20,000. Cost is based on wooden posts installed 3-4' into the ground and 10' on center, woven wire fencing 7' high, 2 access gates, and all associated hardware and bracing. Does not include electric chargers. Actual installation will comply with Rutgers University fact sheet #889 and NRCS standard. Applicable to organic operations only.</p>													
386	10	Field Border (ft)											
386		Field Border, CSG	X				X	269.80	ac	202.35	202.35	202.35	242.82
<p>A strip of cool season grasses planted at the edge of the field to provide for access or turning while creating habitat diversity. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary nutrients and lime, and plant a seed mix of native and/or introduced grasses and legumes.</p>													
386		Field Border, WSG	X				X	259.50	ac	194.63	194.63	194.63	233.55
<p>A strip of warm season grasses planted at the edge of the field to provide for access or turning while creating habitat diversity. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary nutrients, and plant a seed mix of native warm season grasses such as switchgrass, indiagrass and bluestems. Requires additional herbicides to burn down competing cool season forbs, and specialized planting equipment to handle the small seeds of the native grasses.</p>													
386		Field Border, organic production		X				297.30	ac	222.98	222.98	-	267.57
<p>A strip of cool season grasses planted on an organic farm at the edge of a field to provide for access, turning, or protection from spray drift while creating habitat diversity. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary organic nutrients and lime, and plant a seed mix of native and/or introduced grasses and legumes.</p>													
393	10	Filter Strip (ac)											
393		Filter Strip, CSG	X					269.80	ac	161.88	161.88	-	229.33
<p>A strip of cool season grasses planted along a water course such as a field ditch or small stream to protect water quality. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary nutrients and lime, and plant a seed mix of native and/or introduced grasses and legumes.</p>													

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393		Filter Strip, WSG	X					259.50	ac	155.70	155.70	-	220.58
<p>A strip of native warm season grasses planted along a water course such as a field ditch or small stream to protect water quality. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary nutrients, and plant a seed mix of switchgrass, indiagrass and bluestems. Requires additional herbicides to burn down competing cool season forbs, and specialized planting equipment to handle the small seeds of the native grasses.</p>													
393		Filter Strip, organic production		X				297.30	ac	222.98	222.98	-	267.57
<p>A strip of cool season grasses planted on an organic farm along a water course such as a field ditch or small stream to protect water quality. Cost is based on a 30' wide strip. Includes labor, equipment and materials to prepare the seedbed, apply necessary organic nutrients and lime, and plant a seed mix of native and/or introduced grasses and legumes.</p>													
394	5	Firebreak											
394		Wildfire Suppression				X	X	0.26	sy	-	0.15	-	0.22
<p>Within a wooded site, a strip of land 1.5 times the average height of the fuels available to burn is cleared to provide a fuel break to suppress wildfires. Cost is based on a 15' wide and 2904 feet long (1 acre) firebreak created with dozer and heavy disk with debris disposal (or brush pile creation) on site. Practice is applicable to south Jersey only.</p>													
396	5	Fish Passage (ea)											
396		Dam Removal, no sediment removed					X	5,000.00	ft	-	-	3,750.00	4,500.00
<p>Partially remove by notching an existing old mill dam that blocks fish movement on a stream or river that provides migratory fish habitat. Cost is based on cutting or sawing, removal, and disposal of a concrete dam. Does not include removal or disposal of sediment above the dam. Payment is based on vertical foot of dam removed.</p>													
396		Enhanced Fish Habitat				X	X	16.30	ft	-	12.23	12.23	14.67
<p>Existing channel morphology and riparian characteristics along a section of stream are enhanced to diversify the aquatic habitat and meet the needs of local fish and wildlife. Cost is based on installation of randomly placed large boulders in the stream to divert flows, planting the bank with trees and shrubs to provide shade, and excavating pools with spoil placed strategically on channel edges to narrow the channel create variable flow rates. Cost is based on a 300' stream section. Does not include permit fees.</p>													
666	10	Forest Stand Improvement (ac)											
666		General Woodland Management				X		243.00	ac	-	145.80	-	206.55
<p>A hardwood woodlot is divided into management stands under a NJ approved Woodland Management Plan written to improve stand quality and enhance soil, water and air quality. The plan typically identifies, on a per acre basis, 20-50 merchantable crop trees and 20-30 competing trees for cutting, Streamside Management Zones to avoid, methods to control compaction and soil erosion using criteria from the NJ Forestry and Wetlands Best Management Practices Manual, and invasive species and vines to eradicate. Cost is based on 13 acre stand, and includes labor to mark and cut the competing trees, and 1 acre of chemical herbicide treatment to control invasive species in openings left by the cutting. Does not include plan development or planting of any replacement trees.</p>													
666		Forest Stewardship Implementation				X	X	315.00	ac	-	236.25	236.25	283.50
<p>A hardwood woodlot is divided into management stands under a NJ approved Forest Stewardship Plan written to improve stand quality and manage the woodlands for non-commodity benefits such as wildlife, recreation, aesthetics and water quality. The plan typically identifies, on a per acre basis, 20-50 merchantable crop trees and 20-30 competing trees for cutting, wildlife enhancement practices to include, Streamside Management Zones to avoid, methods to control soil erosion and compaction using criteria from the NJ Forestry and Wetlands Best Management Practices Manual, and invasive species and vines to eradicate. Cost is based on 13 acre stand, and includes labor to mark and cut the competing trees, creation of 50 brush piles from harvest slash and 40 snag trees randomly spread across the stand, and 1 acre of chemical herbicide treatment to control invasive species in openings left by the cutting. Does not include plan development or planting of any replacement trees.</p>													
655	5	Forest Trails and Landings											
655		Forest Landings				X		2,310.00	ac	-	1,386.00	-	1,963.50
<p>Construct or repair a suitable landing area for forest harvest based on topography, soils, and hydrology. Cost is based on installation of a new landing with rough grading of a .25 acre site on moderate slopes and well-drained soils with reasonable access for equipment. Landing may be converted to permanent forest openings for diverse habitat after use. Does not include stabilization of landing area (critical are planting, 342).</p>													
655		Forest Trails - North Jersey				X		4,620.00	ac	-	2,772.00	-	3,927.00
<p>A temporary or infrequently used route, path or cleared area within a forest to provide access to forest stands for management activities and/or removal and collection of forest products. Typical site is on a relatively steep slope (10%) with somewhat moderately well-drained to well drained glacial soils with some surface stones. Cost is based on establishment of a new 2200' long route on or close to the contour by minor clearing, and installation of water bars and broad-based dips for erosion control, using NJ Forestry and BMP Manual recommendations. Water bars must follow USDA Forest Service guidelines. Stones collected on site are used as needed to stabilize outflow areas.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
655		Forest Trails - South Jersey				X		3,540.00	ac	-	2,124.00	-	3,009.00
<p>A temporary or infrequently used route, path or cleared area within a forest to provide access to forest stands for management activities and/or removal and collection of forest products. Typical site is on a relatively flat slope with somewhat poorly to moderately well-drained sandy soils. Cost is based on establishment of a new 2200' long route by minor clearing, and installation of 450 feet of ditch with provision for two 15" or smaller culverts to provide cross drainage, using NJ Forestry and BMP Manual recommendations. Cost of required culverts is not included in payment as culverts will be contracted using practice 587, Structure for Water Control.</p>													
410 15 Grade Stabilization Structure (ea)													
410		Straight Drop Spillway	X		X			1,371.75	ft	-	1,028.81	-	1,234.58
<p>A weir control structure required at the end of another practice to ensure a stabile outlet. Cost is based on installation in an open area where no additional clearing is required, but where limited space precludes the use of a pipe drop structure, 10-year storm flows of 100 cfs or less, and a weir length of 12 feet and a fall of 4 feet. Includes excavation, compaction of a small berm around the inlet, outlet apron, seepage control measures, final grading, and seeding with mulch of all disturbed areas. Payment is based on weir length.</p>													
410		Pipe drop spillway with riser	X		X			10,000.00	ea	-	7,500.00	-	9,000.00
<p>A pipe outlet having a catch basin or riser inlet with a trash rack and discharge CPT pipe, required at the end of another practice to ensure a stabile outlet. Cost is based on installation in an open area where limited clearing is required, and 10-year storm flows of 50 cfs or less. Includes excavation, compaction of a small berm around the inlet, outlet apron, anti-seep collars, final grading, and seeding with mulch of all disturbed areas.</p>													
410		Hooded Inlet	X		X			87.79	ft	-	65.84	-	79.01
<p>A drop structure required at the end of another practice to ensure a stabile outlet. Cost is based on installation in an open area where limited clearing is required, a 100' long structure consisting of an 80 foot pipe conduit with inlet and outlet aprons of 10' each, designed to handle 10-year storm flows of 50 cfs or less, with the inlet end of the pipe cut at an angle and with an anti-vortex plate. Includes excavation, earthfill, inlet and outlet rock aprons, anti-seep collars, final grading, and seeding with mulch of all disturbed areas.</p>													
410		Rock Chute	X		X			8.19	sf	-	6.14	-	7.37
<p>Rock riprap installed over geotextile on a moderate slope as an outlet for another practice. Cost is based on a chute width 20' or less, designed to handle flows of 50 cfs or less with 8" - 12" rock. Includes a 50 foot chute length and 10' long inlet and outlet aprons, excavation, earthfill, final grading, and seeding with mulch of all disturbed areas. Does not include clearing.</p>													
410		Grouted Rock Chute	X		X			9.40	sf	-	7.05	-	8.46
<p>Grouted rock riprap installed over geotextile, or a reinforced concrete chute installed on a steep slope as an outlet for another practice. Cost is based on a chute designed to handle flows of 100 cfs or less with a bottom width of 15' or less and with a length of 50 feet, using 8" - 12" rock. Includes cut-off wall at inlet, 10' long inlet and outlet aprons, excavation, earthfill, final grading, and seeding with mulch of all disturbed areas. Does not include clearing.</p>													
412 10 Grassed Waterway (ac)													
412		Grassed Waterway, Seeded & Mulched	X					0.25	sf	-	0.19	-	0.23
<p>Install a grassed waterway to move water safely downslope. Cost is based on construction on a moderate slope that requires no cuts or fills greater than 2', and is typically less than 30' wide. Includes labor and equipment to shape and grade a parabolic channel, provide a finish grade, and seed with mulch. Does not include companion tile (std 606) or rock lining (std 468), if needed.</p>													
412		With Biodegradable Erosion Control	X					0.42	sf	-	0.32	-	0.38
<p>Install a grassed waterway to move water safely downslope. Cost is based on construction on a moderately erosive slope that requires no cuts or fills greater than 2', and is typically less than 30' wide. Includes rough grading of a parabolic channel, finish grading, seeding, and use of a biodegradable erosion control blanket for the length of the waterway secured with metal staples hammered into the soil. Does not include companion tile (std 606) if needed.</p>													
412		Stone Center Waterway	X					0.58	sf	-	0.35	-	0.49
<p>Install a grassed waterway where prolonged flows or seepage is expected. Cost is based on construction that requires no cuts or fills greater than 2', and is typically less than 30' wide. Includes rough grading of a parabolic channel, 2" stone installed across the center 1/2 of the waterway for the length of the waterway, finish grading, and seeding with mulch of all disturbed areas. Does not include companion tile (std 606) if needed.</p>													
561 10 Heavy Use Area Protection (ac)													
<p>Payment is limited to areas intensively used by animals during periods when pastures are not available, based on the number of animals that the available pasture normally supports during the growing season.</p>													
561		Stabilized Crossing			X			2.85	sf	-	1.71	-	2.42
<p>Gravel over geotextile used to stabilize equipment crossings for waterways and diversions. Cost is based on site preparation, spoil removal, materials, and installation of a 3" gravel layer over geotextile. Does not include rough grading of the channel, as that is included in cost of the waterway or diversion.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
561		Asphalt Pad			X			4.61	sf	-	2.77	-	3.92
<p>Asphalt paving installed to provide a winter confinement area for normally pastured animals, installed on areas where soils are firm and well-drained. Cost is based on site preparation, compacted gravel base material, 3" asphalt layer and seeding with mulch of all disturbed areas. Assumes that manure produced on the pad can be easily and is often scraped directly into a storage structure. Does not include curbing, walls, or fence.</p>													
561		Concrete Pad with curb			X			13.98	sf	-	8.39	-	11.88
<p>Reinforced concrete slab with curb and/or walls installed to provide seasonal containment of manure and confinement for normally pastured animals during times when the pastures are not available. Cost is based on site preparation, earthfill, gravel base material, steel reinforcement rods, and concrete poured in place. Assumes that manure produced on the pad is scraped often enough and transported to a waste storage facility so as not to overtop the curb. Does not include fence or solids separation (unless perforated curb).</p>													
561		Concrete Pad with curb and roof			X			25.78	sf	-	15.47	-	21.91
<p>Roofed reinforced concrete slab with curb, and or bucking wall installed to provide seasonal containment of manure and confinement for normally pastured animals during times when the pastures are not available. Includes a pavilion style roof installed to exclude rainwater only when a vegetated treatment area is not feasible. Cost is based on site preparation, earthfill, gravel base material, steel reinforcement rods, and concrete poured in place. Roof includes footings, posts, headers, trusses/rafters/hoops, purlins, and roof sheathing or cover. Does not include curtains or permit fees. Walls, if installed at operator's expense, may preclude NRCS payments as buildings are not allowable under farm bill programs.</p>													
422	15	Hedgerow Planting (ft)											
422		Wildlife Corridor Hedge					X	0.08	sf	-	-	0.06	0.07
<p>A hedgerow installed in an open field to provide a corridor for wildlife movement, cover and food. Cost is based on a 150' long 50' wide hedge randomly planted with containerized (quart to 1 gallon) trees and shrubs at a 5' - 7' spacing. Includes preparation of the area for planting, plant material, installation by hand planting, tree shelters, and frequent weed control.</p>													
441	15	Irrigation System, Microirrigation (ac)											
441		Container Nursery	X					7,681.80	ac	3,840.90	3,840.90	-	5,761.35
<p>A permanently installed micro irrigation system for container-grown nursery stock installed to reduce water consumption. Cost is based on installation of all fittings, control valves, pressure reducing/regulating valves, air/vacuum release, screen/disc filters, pressure gauges, submain, lateral lines, and emitters to deliver water to the plants at or below the soil infiltration rate on a typical 10 acre site. Uses submains, laterals, and emitters with an effective life of 10 years, or replaced at the operator's expense. Does not include sand media water filtration, mainline (std. 430) or materials/labor to properly manage the water application (std. 449).</p>													
441		Perennial Crops	X					2,089.95	ac	1,044.98	1,044.98	-	1,567.46
<p>A permanently installed micro irrigation system for berries, vines or field nursery stock installed to reduce water consumption. Cost is based on installation of all fittings, control valves, pressure reducing/regulating valves, air/vacuum release, screen/disc filters, pressure gauges, submain, lateral lines, and emitters to deliver water to the plants/soil at or below the soil infiltration rate on a typical 20 acre site. Uses submains, laterals, and emitters with an effective life of 10 years, or replaced at the operator's expense. Assumes water source is from a well with no requirement for filtration. Does not include mainline (see std. 430) or materials/labor to properly manage the water application (see std. 449).</p>													
441		Perennial Crops, Surface Water Supply	X					2,684.95	ac	1,342.48	1,342.48	-	2,013.71
<p>A permanently installed micro irrigation system for berries, vines or field nursery stock installed to reduce water consumption using a surface water supply which requires sand filtration to remove organic material, algae, iron, and sediment. Cost is based on installation of a sand media filter with automatic backflush, secondary screen filter and pressure reducing valve, all fittings, control valves, pressure reducing/regulating valves, air/vacuum release, screen/disc filters, pressure gauges, submain, lateral lines, and emitters to deliver water to the plants/soil at or below the soil infiltration rate on a typical 20 acre site. Uses submains, laterals, and emitters with an effective life of 10 years, or replaced at the operator's expense. Does not include mainline (std. 430) or materials/labor to properly manage the water application (std. 449).</p>													
441		Vegetables	X					678.74	ac	339.37	339.37	-	509.06
<p>A micro irrigation system installed for vegetable crops installed to reduce water consumption, with the system rotated within the contracted land. Cost is based on installation of all fittings, control valves, pressure reducing/regulating valves, air/vacuum release, screen/disc filters, pressure gauges and submain to deliver water to the plants/soil at or below the soil infiltration rate on a typical 10 acre site. Assumes water source is from a well with no requirement for filtration. Does not include lateral lines (drip tape), mainline (std. 430) or materials/labor to properly manage the water application (std. 449).</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
441		Vegetables - Surface Water Supply	X					1,273.74	ac	636.87	636.87	-	955.31
<p>A micro irrigation system installed for vegetable crops, with the system rotated within the contracted land, installed to reduce water consumption using a surface water supply which requires sand filtration to remove organic material, algae, iron, and sediment. Cost is based on a sand media filter with automatic backflush, and all fittings, control valves, pressure reducing/regulating valves, air/vacuum release, screen/disc filters, pressure gauges, and submain to deliver water to the plants/soil at or below the soil infiltration rate on a typical 10 acre site. Does not include lateral lines (drip tape), mainline (see std. 430) or materials/labor to properly manage the water application (see std. 449).</p>													
442 15 Irrigation System, Sprinkler (ac)													
442		Center Pivot or Linear move - low pressure	X					1,328.00	ac	664.00	664.00	-	996.00
<p>A fixed center pivot system or linear move system with low pressure drop nozzles on irrigated cropland. Cost for the pivot system includes pivot point and pad; the linear move system includes tow cart and hose and below ground guidance. Both systems include control panel and timer, lateral spans, end gun and booster pump, end boom/overhang, tower assemblies, tires, drive motors, high voltage surge protection, low pressure shut off, pvc or soft hose drops, pressure regulators, low energy sprinklers, running lights and strobe for a typical 70 acre installation. Does not include mainline (std. 430DD) or materials/labor to properly manage the water application (std. 449). Does not include water connections, or electric lines or hook-ups.</p>													
442		Towable Center Pivot - low pressure	X					840.00	ac	420.00	420.00	-	630.00
<p>A towable center pivot system with low pressure drop nozzles on irrigated cropland. Cost is based on installation of pivot tow, concrete anchor, control panel and timer, lateral spans, end gun, booster pump, end boom/overhang, tower assemblies, tires, towable drive unit, high voltage surge protection, low pressure shut off, pvc or soft hose drops, pressure regulators, low energy sprinklers, running lights and strobe for a typical 60 acre installation. Does not include mainline (std. 430DD) or materials/labor to properly manage the water application (std. 449). Does not include water connections, or electric lines or hook-ups.</p>													
442		Solid Set - Berries or Field Nursery	X					3,107.00	ac	1,553.50	1,553.50	-	2,330.25
<p>A permanent sprinkler system with intermediate pressure nozzles and an application efficiency greater than 80% installed on irrigated land. Cost is based on connection to an existing mainline, and installation of all fittings, control valves, permanently installed submain and laterals, and thrust blocks for a typical 8 acre installation. Does not include mainline (std. 430DD) to the field or materials/labor to properly manage the water application (std. 449). Does not include water connections, or electric lines or hook-ups.</p>													
442		Conversion to Drop Nozzles	X					6.04	ft	3.02	3.02	-	4.53
<p>An existing center pivot or linear move impact sprinkler system converted to low flow and pressure nozzles on drops. Cost is based on installation of all sprinkler fittings, drop tubes, pressure regulators, and sprayhead or rotator nozzles. Does not include mainline (std. 430DD) to the field or materials/labor to properly manage the water application (std. 449). Does not include water connections, or electric lines or hook-ups.</p>													
447 15 Irrigation System, Tailwater Recovery (ea)													
447		Basin without Filtration System	X					976.23	ac	-	488.12	-	732.17
<p>An excavated or embankment pond with 3:1 sideslopes designed to receive irrigation tailwater and provide storage for its reuse. Cost is based on excavation, and on-site spoil disposal and seed with mulch of disturbed areas 50' around the pond. Typically installed in a series of basins where filtration already exists. Does not include construction of a liner (std 521A or C), inlet or outlet structures (std 410 or 468), sediment basin (std 350), pump-back system (std 533), or fence (std 382). Payment is calculated on total drainage area to the basin.</p>													
447		Basin with Filtration System	X					1,102.23	ac	-	551.12	-	826.67
<p>An excavated or embankment pond with 3:1 sideslopes designed to receive irrigation tailwater and provide storage for its reuse. Includes a sand media filter with automatic backflush, necessary when pumping irrigation water from the tailwater recovery basin for reuse to treat for removal of organic material, pathogens, algae, iron, and sediment. Cost is based on excavation, on-site spoil disposal and seed with mulch of disturbed areas 50' around the pond, and a 3 tank filter system with automatic backflush, secondary screen filter, and valves. Does not include construction of a liner (std 521A or C), inlet or outlet structures (std 410 or 468), sediment basin (std 350), pump-back system (std 533), or fence (std 382). Payment is calculated on total drainage area to the basin.</p>													
447		Basin with Filtration & Chlorination	X					1,238.27	ac	-	619.14	-	928.70
<p>An excavated or embankment pond with 3:1 sideslopes designed to receive irrigation tailwater and provide storage for its reuse. Includes a sand media filter with automatic backflush to remove organic material, algae, iron, and sediment; and a gas chlorination or other treatment system that eliminates pathogens and bacteria, necessary when pumping irrigation water from the basin for reuse on sensitive plant stock. Cost is based on excavation and grading of the basin, on-site spoil disposal, seed with mulch of disturbed areas 50' around the site, a 3 tank filtration system with automatic backflush, secondary screen filter, and valves, and a pathogen treatment system (such as 2 gas chlorine cylinders, vacuum operated solution feed gas chlorinator, vacuum tubing, and water operated ejector assembly). Does not include construction of a liner (std 521A, C or D), inlet or outlet structures (std 410 or 468), sediment basin (std 350), pump-back system (std 533), or fence (std 382). Payment is based on total drainage area to the basin.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate				
										AMA \$	EQIP \$	WHIP \$	HU \$	
430DD	20	Irrigation Water Conveyance, Pipeline, High-pressure, Underground, Plastic (ft)												
430DD		High Pressure, Plastic, 01/2" to 2" diameter	X					6.28	ft	3.14	3.14	-	4.71	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 1/2" - 2" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 300 foot installation.														
430DD		High Pressure, Plastic, 03" to 4" diameter	X					9.78	ft	4.89	4.89	-	7.34	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 3" - 4" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 300 foot installation.														
430DD		High Pressure, Plastic, 06" diameter	X					12.13	ft	6.07	6.07	-	9.10	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 6" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 1000 foot installation.														
430DD		High Pressure, Plastic, 08" diameter	X					16.53	ft	8.27	8.27	-	12.40	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 8" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 1000 foot installation.														
430DD		High Pressure, Plastic, 10" diameter	X					20.98	ft	10.49	10.49	-	15.74	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 10" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 1000 foot installation.														
430DD		High Pressure, Plastic, 12" diam. or greater	X					27.08	ft	13.54	13.54	-	20.31	
An irrigation mainline permanently installed to deliver water to a high efficiency irrigation system. Includes materials and labor to install a 12" diameter PVC pipe with a pressure rating of 160 PSI, all fittings, risers, air release, and thrust blocks. Cost is based on a typical 1000 foot installation.														
449	1	Irrigation Water Management (ac)												
449		Install Manual System, field crops	X					30.23	ac	22.67	22.67	-	27.21	
A system to monitor irrigation water applied to field crops based on data manually collected from soil moisture sensors is installed and followed for an entire growing season. Requires manually turning on and off the water supply according to soil moisture readings, and recording of each irrigation cycle (run time, inches applied and total flow recorded). Cost is based on a typical 100 acre installation with soil moisture data collected three times per week. Includes one flowmeter installed on the mainline and monitored during each irrigation cycle with monthly totals recorded, access to local real-time weather records or rainfall record keeping, preparation and installation of five soil moisture sensors, and the time to manage and monitor the system for the entire growing season.														
449		Use Manual System, field crops	X					12.30	ac	9.23	9.23	-	11.07	
Irrigation water is applied to field crops based on data manually collected from soil moisture sensors. Requires manually turning on and off the water supply according to soil moisture readings, and recording of each irrigation cycle (run time, inches applied and total flow recorded). Assumes moisture sensors have been properly stored over winter and re-installed in the field, that soil moisture data is collected three times per week, and that a flowmeter is already installed on the mainline. Includes monitoring of the flow meter during each irrigation cycle with monthly totals recorded, access to local real-time weather records or rainfall record keeping, and the time to manage and monitor the system for the entire growing season.														
449		Install Manual System, specialty crops	X					135.84	ac	101.88	101.88	-	122.26	
A system to monitor irrigation water applied to specialty crops based on data manually collected from soil moisture sensors is installed and followed for an entire growing season. Requires manually turning on and off the water supply according to soil moisture readings, and recording of each irrigation cycle (run time, inches applied and total flow recorded). Cost is based on a typical 25 acre installation with soil moisture data collected three times per week. Includes one flowmeter installed on the mainline and monitored during each irrigation cycle with monthly totals recorded, a backflow preventor, access to local real-time weather records or rainfall record keeping, preparation and installation of five soil moisture sensors, and the time to manage and monitor the system for the entire growing season.														
449		Use Manual System, specialty crops	X					44.00	ac	33.00	33.00	-	39.60	
Irrigation water is applied to specialty crops based on data manually collected from soil moisture sensors. Requires manually turning on and off the water supply according to soil moisture readings, and recording of each irrigation cycle (run time, inches applied and total flow recorded). Assumes moisture sensors have been properly stored over winter and re-installed in the field, and that a flowmeter and backflow preventor are already installed on the mainline. Includes soil moisture data collection three times per week, monitoring of the flow meter during each irrigation cycle with monthly totals recorded, access to local real-time weather records or rainfall record keeping, and the time to manage and monitor the system for the entire growing season.														

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
449		Install Computer Record Keeping System	X					223.00	ac	167.25	167.25	-	200.70
<p>A computer-based system to monitor irrigation water applied to high value crops, based on data automatically transmitted from dielectric soil moisture sensors to a computer program that recommends irrigation cycles based on actual soil moisture conditions and local weather data, is installed and followed for an entire growing season. Requires manually turning on and off the water supply according to system recommendations. Cost is based on a typical 25 acre installation. Includes three moisture monitoring stations, six sensors, a datalogger and transmitter, a flowmeter with backflow preventor installed on the mainline, monthly recording of flowmeter readings, access to local real-time weather records or rainfall record keeping, and the time to manage and monitor the system for the entire growing season. Records are kept to compare system recommendations to actual application rates from flow meter data. Does not include the base station and/or computer required to automate the system.</p>													
449		Use Computer Record Keeping System	X					30.00	ac	22.50	22.50	-	27.00
<p>Irrigation water is applied to high value crops based on data automatically transmitted from dielectric soil moisture sensors to a computer program that recommends irrigation cycles based on actual soil moisture conditions and local weather data. Assumes all system components are in place (sensors, transmitter, flow meter, backflow preventor). Requires manually turning on and off the water supply according to system recommendations. Includes monthly recording of flowmeter readings, access to local real-time weather records or rainfall record keeping, and the time to manage and monitor the system for the entire growing season. Records are kept to compare system recommendations to actual application rates from flow meter data.</p>													
449		System Automation	X					351.00	ac	157.95	157.95	-	263.25
<p>A completely automated computer-based system to monitor and control the application of water on high value crops in installed and used for an entire growing season. The system uses soil moisture and atmospheric data transmitted wirelessly from sensors to automatically turn the irrigation system on an off. Includes computer programming of soil infiltration rate, crop types and planting dates, adjustments for real-time evapotranspiration rates, and use of the system for the entire growing season. Reports of water use are provided by the computer system to NRCS at the end of the season. Cost is based on a typical 50 acre system. Does not include the base station and/or computer required to automate the system.</p>													
468	1	Lined Waterway or Outlet (ft)											
468		Loose Riprap Lined	X					4.30	sf	3.23	3.23	-	3.87
<p>Loose rock riprap installed over geotextile in an engineered channel to control erosion on a steep slope, usually at the outlet end of a grassed waterway or in a tailwater recovery system. Cost is based on excavation, installation of all materials, rip rap, geotextile, final grading and seeding with mulch of all disturbed areas. Does not include any minor clearing, and does not apply to grassed waterways with prolonged flows or seepage (std 412).</p>													
468		Concrete or Revetment Mat Lined	X					8.56	sf	6.42	6.42	-	7.70
<p>Concrete or revetment mat installed over a gravel base in an engineered channel to control erosion on a steep slope, usually at the outlet end of a grassed waterway or in a tailwater recovery system. Cost is based on excavation, installation of all materials, gravel, concrete, final grading and seeding with mulch of all disturbed areas. Does not include any minor clearing.</p>													
484	1	Mulching											
468		First Year Application of Leaves	X	X				87.93	ac	65.95	65.95	-	79.14
<p>The first year transport and land application of municipally collected leaves on cropland that is annually planted to a low residue crop (includes vegetables, silage corn, and soybeans). The leaves will be stockpiled no more than seven days, then spread with a manure spreader no more than 3" thick (total 8-10 tons/ac). Leaves will be incorporated into the soil before the next crop is planted using a chisel plow and disk. Cost includes transport with a tandem trailer or dump bed truck, spreading, incorporation, and application of nitrogen fertilization of 50 pounds per acre in the first year of application.</p>													
468		2nd and 3rd Year Application of Leaves	X	X				52.43	ac	39.32	39.32	-	47.19
<p>The second and third year transport and land application of municipally collected leaves on cropland that is annually planted to a low residue crop (includes vegetables, silage corn, and soybeans). The leaves will be stockpiled no more than seven days, then spread with a manure spreader no more than 3" thick (total 8-10 tons/ac). Leaves will be incorporated into the soil before the next crop is planted using a chisel plow and disk. Cost includes transport with a tandem trailer or dump bed truck, spreading, and incorporation.</p>													
590	1	Nutrient Management (ac)											
590		Grain Crops	X					25.36	ac	19.02	19.02	-	22.82
<p>Fertilizer application rates for grain crops are based on current soil test results, quantification of all nutrient sources, and crop yield goals. Cost is based on 250 acres of grain crops. Requires reviewing an annual nutrient budget, standard soil sample tests, PSNT tests (for corn), split organic and inorganic fertilizer applications using conventional spreading equipment, and record keeping (date, rate, and total nutrient application) and evaluation of the results. Does not include initial nutrient management plan development, or any practices required to mitigate any impacts to water quality.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
590		Organic Grain Crops		X				34.22	ac	25.67	25.67	-	30.80
Fertilizer application rates for grain crops are based on current soil test results, quantification of all nutrient sources, and crop yield goals. Cost is based on 250 acres of grain crops. Requires reviewing an annual nutrient budget, standard soil sample tests, PSNT tests (for corn), split organic and inorganic fertilizer applications using conventional spreading equipment, and record keeping (date, rate, and total nutrient application) and evaluation of the results. Does not include initial nutrient management plan development, or any practices required to mitigate any impacts to water quality.													
590		Specialty Crops	X					52.56	ac	39.42	39.42	-	47.30
Fertilizer application rates for specialty crops are based on current soil test results, quantification of all nutrient sources, and crop yield goals. Cost is based on 50 acres of specialty crops (vegetables, sod, greenhouses, nursery, etc). Requires review of an annual nutrient budget, soil sample tests, tissue tests, and record keeping (date, rate, and total nutrient application) and evaluation of the results. Does not include initial nutrient management plan development, or any practices required to mitigate any impacts to water quality.													
590		Organic Specialty Crops		X				77.40	ac	58.05	58.05	-	69.66
Fertilizer application rates for specialty crops are based on current soil test results, quantification of all nutrient sources, and crop yield goals. Cost is based on 50 acres of specialty crops (vegetables, sod, greenhouses, nursery, etc). Requires review of an annual nutrient budget, soil sample tests, tissue tests, and record keeping (date, rate, and total nutrient application) and evaluation of the results. Does not include initial nutrient management plan development, or any practices required to mitigate any impacts to water quality.													
500	10	Obstruction Removal (ac)											
500		Fencing Removal					X	0.48	ft	-	-	0.36	0.43
Remove and properly dispose of a non-functioning fence in an abandoned wet pasture as part of creating or extending bog turtle habitat. Includes all labor to remove the fence and transport the debris to a legal disposal site. Does not include any disposal fees, trucking costs, or fuel.													
500		Hedgerow or Stonerow Removal	X				X	3,280.00	ac	-	1,968.00	1,968.00	2,788.00
Remove an existing combination stone and/or shrub/tree hedgerow to facilitate the installation of a field-based conservation practice that provides wildlife habitat or reduces erosion. Cost is based on felling of trees and shrubs by machine and chainsaw, loading and hauling of stone, and minor grading, with all materials properly disposed of on the farm. Does not include disposal fees or costs, trucking costs, or seeding of the disturbed area as the intent is to convert the area immediately into another practice.													
500		Structure Removal	X		X			194.54	cy	-	116.72	-	165.36
Remove and dispose of concrete slabs, walls or footings in order to install a more efficient waste handling, tailwater recovery or other conservation system. Cost is based on breaking up structural material by machine or jackhammer, loading, and transporting for on-farm disposal. Does not include disposal fees or costs, trucking costs, or seeding of the disturbed area as the intent is to convert the area immediately into another practice.													
512	5	Pasture and Hay Planting (ac)											
512		New Grass Seeding			X			412.00	ac	247.20	247.20	-	350.20
Fall planting of introduced forage species on existing or new pasture when existing stand is comprised of less than 60% desirable species. Cost is based on one pass each by chisel plow, disk, and harrow; 175 pounds/acre of 21-0-0 fertilizer, 1-1/2 tons/acre of lime applied by conventional equipment; seeding by grass drill; and post-plant herbicide. Included seed mixture is orchardgrasses, bromegrass, timothy, and clovers seeded at a rate of 16 lbs/acre for grasses and 5 lbs/acre for clovers. Does not include chemical burn of previous crop, pre-plant weed control, mowing, or overseeding.													
512		Pasture Overseeding			X			260.00	ac	156.00	156.00	-	221.00
Spring overseeding of introduced forage species into an existing pasture when the existing stand is comprised of between 60% and 80% desirable species. Cost is based on 175 pounds/acre of 21-0-0 fertilizer and 1 1/2 tons/acre of lime applied by conventional equipment, and seeding by grass drill. Included seed mixture is orchardgrasses, bromegrass, timothy, and clovers seeded at a rate of 12 lbs/acre for grasses and 4 lbs./acre for clovers. Does not include chemical burn of previous crop, pre-plant weed control, or mowing.													
595	1	Pest Management (ac)											
595		Grain Crops	X					17.67	ac	13.25	13.25	-	15.90
Producer implements a pest scouting and economic threshold-based pest management system on 250 acres of field crops (including hay). Cost is based on regular scouting during the growing season to establish when economic thresholds are reached, and documentation that pesticide applications were made based on those thresholds. Producer maintains records of all scouting, pesticide applications, and yield to determine the effectiveness of the system. Does not include any practices required to mitigate the impacts of the selected pesticides to water quality.													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
595		Organic Grain Crops		X				23.34	ac	17.51	17.51	-	21.01
<p>Producer complies with NOFA standards and applies no inorganic pesticides. Cost is based on increased scouting frequency (more often than conventional crops) on 250 acres of organic field crops (including hay) during the growing season to establish when economic thresholds are reached, and documentation of the cultural or biological control methods applied. Producer maintains records of all scouting, control methods used, and yield to determine the effectiveness of the system. Does not include any practices required to mitigate the impacts of the system or to control spray drift from neighboring operations.</p>													
595		Specialty Crops	X					38.31	ac	28.73	28.73	-	34.48
<p>Producer implements a pest scouting and economic threshold-based pest management system on 50 acres of specialty crops (vegetables, sod, greenhouses, nursery, etc). Cost is based on regular scouting during the growing season to establish when economic thresholds are reached, and documentation that pesticide applications were made based on those thresholds. Producer maintains records of all scouting, pesticide applications, and yield to determine the effectiveness of the system. Does not include any practices required to mitigate the impacts of the selected pesticides to water quality.</p>													
595		Organic Specialty Crops		X				69.20	ac	51.90	51.90	-	62.28
<p>Producer complies with NOFA standards and applies no inorganic pesticides. Cost is based on increased scouting frequency (more often than conventional crops) on 50 acres of specialty crops (vegetables, sod, greenhouses, nursery, etc) to establish when economic thresholds are reached, and documentation of the cultural or biological control methods applied. Producer maintains records of all scouting, control methods used, and yield to determine the effectiveness of the system. Does not include any practices required to mitigate the impacts of the system or to control spray drift from neighboring operations.</p>													
516 20 Pipeline (ft)													
516		PE pipe, 1" diam or less, native bedding			X			3.74	ft	2.24	2.24	-	3.18
<p>Install 1" diameter or smaller polyethylene pipeline from a water source (existing) to livestock waterers in pastures. Includes labor to make connection to the water source, one backflow preventor, trench excavation below frost depth, pipe placement, and native backfill. Cost is based on 1000 linear feet of pipe. Does not include watering facility (std 614), hydrants, or shut-off valve.</p>													
516		PE pipe, 1-1/4" to 4" diam, native bedding			X			6.15	ft	3.69	3.69	-	5.23
<p>Install 1-1/4" to 4" diameter polyethylene pipeline from a water source (existing pipe, pressure tank, or pump) to livestock waterers in pastures. Includes labor to make connection to the water source, one backflow preventor, trench excavation below frost depth, pipe placement, and native backfill. Cost is based on 1000 linear feet of pipe. Does not include watering facility (std 614), hydrants, or shut-off valve.</p>													
516		PE pipe, 1" diam. or less, select bedding			X			5.04	ft	3.02	3.02	-	4.28
<p>Install 1" diameter or smaller polyethylene pipeline installed in stony soil from a water source (existing pipe, pressure tank, or pump) to livestock waterers in pastures. Includes labor to make connection to the water source, one backflow preventor, trench excavation below frost depth, pipe placement, and native backfill with select bedding around pipe. Cost is based on 1000 linear feet of pipe in stony soil. Does not include watering facility (std 614), hydrants, or shut-off valve.</p>													
516		PE pipe, 1-1/4" to 4" diam., select bedding			X			7.46	ft	4.48	4.48	-	6.34
<p>Install 1-1/4" to 4" diameter polyethylene pipeline installed in stony soil from a water source (existing pipe, pressure tank, or pump) to livestock waterers in pastures. Includes labor to make connection to the water source, one backflow preventor, trench excavation below frost depth, pipe placement, and native backfill with select bedding around pipe. Cost is based on 1000 linear feet of pipe in stony soil. Does not include watering facility, hydrants, or shut-off valve.</p>													
521A 20 Pond Sealing or Lining, Flexible Membrane (ea)													
521A		Flexible Membrane	X		X			0.76	sf	-	0.46	-	0.65
<p>A hydraulic barrier consisting of synthetic, flexible material (HDPE) applied to the bottom and side slopes of a tailwater recovery basin or earthen waste storage structure to contain the runoff water and minimize leaching of chemical and nutrients to the groundwater. Cost is based on preparation of the subgrade, and installation of the membrane and vents. Does not include basin excavation or drainage system if needed.</p>													
521C 15 Pond Sealing or Lining, Bentonite Sealant (ea)													
521C		Bentonite Sealant	X		X			0.76	sf	-	0.46	-	0.65
<p>A 12" thick compacted soil-bentonite layer applied to the bottom and side slopes of a tailwater recovery basin or earthen waste storage structure to minimize leaching of chemicals and nutrients to groundwater. Cost is based on materials and installation for two lifts of a 6" bentonite layer applied at 3 lb/sf with a 6" compacted soil cover layer on top, using on-site soil. Does not include basin excavation or drainage system if needed.</p>													
521D 15 Pond Sealing or Lining, Compacted Clay Treatment (ea)													
521D		Compacted Clay Treatment	X		X			0.76	sf	-	0.46	-	0.65
<p>A 12" thick compacted clay layer applied to the bottom and side slopes of a tailwater recovery basin or earthen waste storage structure to contain the runoff water and minimize leaching of chemical and nutrients to the groundwater. Cost is based on materials and installation in two lifts of a 6" of compacted clay from on-site sources with a 6" compacted soil cover material layer on top. Source of soil for top layer in on-site. Does not include basin excavation or drainage system if needed.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate				
										AMA \$	EQIP \$	WHIP \$	HU \$	
338	1	Prescribed Burning (ac)												
338		Prescribed Burning				X	X	52.50	ac	-	39.38	39.38	47.25	
<p>A licensed entity implements a prescribed burn on a warm season grass field or within the Pinelands region of the state to enhance the native species stand against competing or invasive species. A state permit is required, and all provisions of the state permit must be followed. Operator must notify the state forest fire service of date and time of scheduled burn. Cost is based on 20 acres burned under one permit. Includes labor and materials needed to set and control the fire. Does not include cost of permit.</p>														
528	1	Prescribed Grazing (ac)												
<p>Note that payment can not be made until ALL requirements are met, even if it takes several trial years of implementation prior to completion. Assumption is that participant works with local office and grazing specialist annually on improving the system until payment can be authorized.</p>														
528		Basic Grazing using Permanent Fence			X			241.97	ac	145.18	145.18	-	205.67	
<p>A managed grazing system implemented where livestock is dependent on the forage quality for the majority of their daily diet while pastured more than 6 hours per day and 200 days per year. The system is designed to improve the forage species composition, ensure optimum water infiltration, and manage fecal deposition by limiting livestock concentrations in paddocks and around feeding or watering areas through rotation management where pastures are permanently fenced. Cost is based on 30 acres where all required system (water, fence, etc. are in place). Includes application of lime, monitoring of forage height every other day, relocation of livestock based on forage height and minimum resting periods, documentation of forage data and rotations implemented, mowing of rested pastures when forage growth is excessive, monthly dragging of pastures to distribute manure, and documentation of weeds, bare spots, and other problems for the initial year of implementation. Does not include fencing (std 382), water (std 614), or seeding (std 512).</p>														
528		Intensive Grazing using Movable Fence			X			324.30	ac	194.58	194.58	-	275.66	
<p>A managed grazing system implemented where livestock is rotated into new paddocks a minimum of every 2 days while pastured an average of more than 6 hours per day and 200 days per year. The system is designed to improve the forage species composition, ensure optimum water infiltration, and manage fecal deposition by limiting livestock concentrations in paddocks and around feeding or watering areas through rotation management where pasture layout is changed as determined by forage conditions using movable polywire fencing. Cost is based on 30 acres where all required system (water, fence, etc. are in place). Includes polywire fence, application of lime, monitoring of forage height every other day, relocation of livestock based on forage height and minimum resting periods, documentation of forage data and rotations implemented, mowing of rested areas when forage growth is excessive, monthly dragging of pastures to distribute manure, and documentation of weeds, bare spots, and other problems for the initial year of implementation. Does not include fencing (std 382), water (std 614), or seeding (std 512).</p>														
533	15	Pumping Plant for Water Control (ea)												
533		Livestock Watering pump system			X			3,624.00	ea	2,174.40	2,174.40	-	3,080.40	
<p>Low pressure pump installed in a well dedicated to provide water for a permanently installed livestock watering system. Cost is based on a 5 HP pump. Does not include power source, well (std 642) or mainline (std 430DD). Only allowable as a companion practice to a Watering Facility. Modifications to existing domestic systems, such as but not limited to increases in well or pump capacity, installation of pressure tanks or booster pumps that also service the domestic system, etc., are the sole responsibility of the landowner and are not authorized under this practice.</p>														
533		Microirrigation pump system	X					3,079.00	ea	1,539.50	1,539.50	-	2,309.25	
<p>Low pressure submersible pump installed in a well dedicated to provide water for a permanently installed low volume irrigation system. Cost is based on a 10 HP pump. Does not include power source, water source or mainline (std 430DD). Larger pumps for other microirrigation systems are eligible at the same payment rate. Only allowable as a companion practice to a Micro-Irrigation System.</p>														
533		Tailwater Recovery pump system	X					8,000.00	ea	-	4,000.00	-	6,000.00	
<p>A turbine or centrifugal pump installed to transfer stored tailwater from the recovery basin to supply basin only. Cost is based on a 50 HP pump. Larger pumps are eligible at the same payment rate. Does not include power source or mainline std (430DD). Must be a companion practice to a Tailwater Recovery System.</p>														
533		Wastewater Transfer pump system			X			7,274.00	ea	-	4,364.40	-	6,182.90	
<p>Pumping plant system installed to safely transfer wastewater from barnyards to a storage facility or wastewater treatment system. Cost is based on installation of a precast concrete collection tank, 10 HP pump, and 250 feet of 4-inch diameter PVC pipe. Does not include storage facility (std 313) or treatment system (std 656), or power source.</p>														
329	1	Residue Management, No-Till/Strip Till/Direct Seed (ac)												
329		Convert to No-Till Grain System	X	X				42.00	ac	31.50	31.50	-	37.80	
<p>On fields used for grain production, a new tillage system that provides for a continuous canopy or residue cover on the soil to build organic matter, reduce the use of supplemental fertilizers, and reduce the need for tillage to control weeds is implemented. Cost is based on the exclusive use of slot or no-tillage planting equipment for grain and legume crops for a minimum three-year period. Eliminates the need for weed control tillage and/or herbicides.</p>														

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
329		Convert to No-Till Vegetable System	X	X				144.80	ac	108.60	108.60	-	130.32
<p>On fields used for specialty crop production, a new tillage system that provides for a continuous cover on the soil to build organic matter, reduce the use of supplemental fertilizers, and reduce the need for tillage to control weeds is implemented. Cost is based on the use of a high residue legume cover crop, a roller or crimper machine to flatten the cover, and specialized planting equipment to plant vegetables through the residue. Eliminates the need for weed control tillage and/or herbicides.</p>													
391	15	Riparian Forest Buffer (ac)											
391		3-Zone Buffer using seedling stock	X		X		X	1,081.56	ac	811.17	-	811.17	973.40
<p>Three zoned riparian buffer installed next to a surface water body where seedling survival is not critical or where the area is protected from deer. Cost is based on an 800' long buffer, with Zone 1 (15' wide) comprised of randomly planted trees spaced approximately 10' - 15' on center, Zone 2 (40' wide) comprised of a mixture of trees and shrubs planted at a 5' - 7' spacing, and Zone 3 (20' wide) comprised of an herbaceous strip of cool season grasses and forbs. Zones 1 and 2 are both planted at a minimum density of 200 plants per acre. Includes preparation of planting area, pre and post planting herbicide applications, plant materials, hand planting of 2-3 year old seedlings, machine seeding of zone 3, and one mowing of zone 3 during initial year for weed control. Assumes flood plain is narrow and minimum buffer of 75' total width will meet the practice standard.</p>													
391		3-Zone Buffer using container stock	X		X		X	2,596.56	ac	1,947.42	-	1,947.42	2,336.90
<p>Three zoned riparian buffer installed next to a surface water body where deer pressure is high and stock survival is critical to the success of the practice. Cost is based on an 800' long buffer, with Zone 1 (15' wide) comprised of randomly planted trees spaced approximately 10' - 15' on center, Zone 2 (40' wide) comprised of a mixture of trees and shrubs planted at a 5' - 7' spacing, and Zone 3 (20' wide) comprised of an herbaceous strip of cool season grasses and forbs. Zones 1 and 2 are both planted at a minimum density of 200 plants per acre. Includes preparation of planting area, pre and post herbicide applications, plant materials, hand planting of container stock, machine seeding of zone 3, tree guards, and one mowing of zone 3 during initial year for weed control. Assumes flood plain is narrow and minimum buffer of 75' total width will meet the practice standard. Requires use of larger container stock (3-gallon and 5-gallon size) due to high deer pressure.</p>													
390	5	Riparian Herbaceous Cover (ac)											
390		Warm Season Herbaceous Mix	X		X		X	292.25	ac	219.19	-	219.19	263.03
<p>Warm season herbaceous buffer planted directly next to a surface water body. Warm season grasses are planted at seeding rates lower than prescribed in Critical Area Seeding standard, with wildflowers and other herbaceous plants included in the seed mix. Cost is based on a 50' wide buffer. Includes conventional preparation of the seedbed, seed, planting, pre and post seeding herbicide application, and mowing during initial year for weed/competition control.</p>													
390		Cool Season Herbaceous Mix	X		X		X	303.35	ac	227.51	-	227.51	273.02
<p>Cool season herbaceous buffer planted directly next to a surface water body, or as a Zone 3 of an existing wooded riparian buffer. Cost is based on a 50' planting width, using cool season grasses planted at seeding rates lower than prescribed in Critical Area Seeding standard, and wildflowers and other herbaceous plants included in seed mix. Includes conventional preparation of the seedbed, seed, planting, pre and post seeding herbicide application, and mowing during initial year for weed/competition control.</p>													
558	15	Roof Runoff Structure (ea)											
558		Gutter & Downspouts	X		X			1.07	sf	-	0.59	-	0.86
<p>Roof gutters and downspouts installed to collect and separate clean stormwater from barnyard runoff. Cost is based on materials and installation of fascia board, gutters, downspouts with a PVC riser tied to an underground outlet or splash pad. Does not include underground outlet (std 620).</p>													
558		Trench Drain System	X		X			13.80	ft	-	7.59	-	11.04
<p>A perforated pipe with gravel backfill installed along roof drip line on buildings where gutters can not be used. The system is installed to collect and separate clean stormwater from barnyard runoff. Cost is based on excavation, materials and installation of perforated pipe and clean gravel. Does not include underground outlet (std 620).</p>													
570	15	Runoff Management System (ea)											
570		Infiltration Structure	X		X			1.20	gal	-	0.60	-	0.90
<p>A seepage chamber or trench placed on a stabilized pervious foundation and backfilled with gravel installed for infiltration of roof runoff. Cost is based on labor and machinery needed for excavation, installation of perforate pipe or a precast concrete box, gravel, final grading and seed with mulch of all disturbed areas. Does not include collection of runoff water or transfer pipe.</p>													
570		Earthen Basin	X		X			0.25	cf	-	0.13	-	0.19
<p>An earth embankment or basin constructed to detain and/or infiltrate excess runoff where peak rates of runoff are to be controlled. Cost is based on excavation and fill with on-site material. Does not include structures required to safely deliver runoff water to the basin or from the basin to a safe outlet.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
350 20 Sediment Basin (ea)													
350		Earthen Basin	X					0.25	cf	-	0.13	-	0.19
An earthen basin constructed to settle sediments from runoff typically installed as a part of a tailwater recovery system. Cost is based on excavation of a small basin with one side constructed specifically to allow frequent clean outs, final grading and seed with mulch of all disturbed areas. Does not include channels leading into or out of the basin.													
350		Concrete Basin	X					3.86	cf	-	1.93	-	2.90
A reinforced concrete basin designed for the settling of sediments from runoff as a part of a tailwater recovery system. Cost is based on labor and machinery to excavate and prepare the site, install the rebar, concrete floor, and walls with an access ramp for solids removal. Does not include channels leading into or out of the basin.													
646 5 Shallow Water Management (ac)													
646		Shallow Water Area for Wildlife					X	4,026.00	ac	-	-	3,019.50	3,623.40
A shallow water area excavated for wildlife habitat enhancement. Cost is based on a 1/2 acre area with maximum excavation of 36", where at least 75% of the area remains 18" or less deep to minimize deep water. Includes on-site spreading of spoil, and broadcast seeding of all disturbed areas.													
632 15 Solid/Liquid Waste Separation Facility (ea)													
632		Timber Picket			X			4.30	ft	-	3.23	-	3.87
A 4-foot high "picket dam" structure installed to separate solids from dry stack and HUAP areas. Cost is based on excavation and installation of concrete footings, timber posts, stringers, planks, and necessary hardware. Does not include vegetated treatment area (std 635), or structures required to transfer the waste to or from the separation facility.													
632		Earthen settling basin			X			0.25	cf	-	0.19	-	0.23
An earthen basin designed for the settling of solids from a waste stream. Basin is limited to 5 feet in depth with a minimum bottom width of 10 feet and includes an access ramp for solids removal. Cost is based on excavation, grading, and seeding of disturbed areas. Does not include vegetated treatment area (std 635).													
632		Concrete settling basin			X			3.86	cf	-	2.90	-	3.47
A reinforced concrete basin designed for the settling of solids from a waste stream. Basin is limited to 5 feet in depth with a minimum bottom width of 10 feet and includes concrete floor, walls, and access ramp for solids removal. Cost is based on labor and machinery to excavate and prepare the site, install the rebar, concrete floor, and walls. Does not include vegetated treatment area (std 635).													
632		Mechanical Separator			X			23,900.00	ea	-	17,925	-	21,510
Mechanical device such as an inclined screen or roller press used to separate solids from a waste stream. Cost is based on installation of a self-contained unit on a firm foundation. Does not include structures required to transfer the waste to the device, or following separation, to the separate storage facilities.													
574 10 Spring Development (ea)													
574		Spring Development			X			29.63	ft	-	17.78	-	25.19
A permanent spring or seep located on the farm is converted to a source of livestock water. Cost is based on excavation of a 150' trench across the slope uphill of the seep, installation of a 4" perforated pipe with stone backfill, spoil spreading within the field, and a collection box to deliver the water to the watering facility. Does not include the watering facility itself (std 614).													
580 20 Streambank and Shoreline Protection (ft)													
580		Bioengineered Protection	X	X	X	X		27.44	sf	-	20.58	20.58	24.70
A bare or eroding streambank is stabilized with live fascines, brush mattress, or live stakes. Cost is based on machine preparation of a stable bank slope, installation of geotextile, all plant materials, and hand assembly and placement of fascines or mattress, and use of live stakes to hold the materials in place. Does not include any structural stabilization, such as a rock toe or riprap slope.													
580		Bioengineered Protection with rock toe	X	X	X	X		54.87	sf	-	41.15	41.15	49.38
A bare or eroding streambank is stabilized with a rock toe and live fascines, brush mattress, or live stakes. Rock armoring is required due to the flow direction, velocity and/or prolonged inundation conditions. Cost is based on machine preparation of a stable bank slope and keyway, installation of rock riprap and geotextile, all plant materials, and hand assembly and placement of fascines or mattress, and use of live stakes to hold the materials in place.													
578 10 Stream Crossing (ea)													
578		Gravel Wet Crossing			X	X		2.85	sf	1.71	1.71	1.71	2.42
As part of providing adequate pasture for an effective rotation grazing system, a 8' wide travel way across a stream or ditch is installed. Water velocity or animal numbers are low enough to maintain an ungrouted gravel crossing. Requires a NJ DEP permit prior to implementation. Includes excavation, grading, stone and gravel installed by machine. Does not include access control such as fencing to direct livestock to the crossing, or permit fees.													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
578		Precast Concrete Wet Crossing			X			8.56	sf	5.14	5.14	-	7.28
As part of providing adequate pasture for an effective rotation grazing system, a 8' wide travel way across a stream or ditch is installed. Water velocity or animal numbers are high enough to require a reinforced concrete crossing. Requires a NJ DEP permit prior to implementation. Includes excavation, grading, stone and precast reinforced concrete slab installed by machine. Does not include access control such as fencing to direct livestock to the crossing, or permit fees.													
587	20	Structure for Water Control (ea)											
587		Inlet Structure	X		X		X	1,920.45	ea	-	1,440.34	1,440.34	1,728.41
A precast concrete structure designed to deliver surface water from another conservation practice to an underground outlet, or otherwise control the direction or rate of water flow in a subsurface system. Cost is based on site work, installation of gravel subbase material, a precast concrete unit, trash rack and flashboards. Does not include inlet or outlet pipes (std 620).													
587		Weir Structure	X		X		X	73.16	ft	-	54.87	54.87	65.84
A weir structure typically used to control water levels from shallow impoundment areas. Cost is based on materials, equipment and labor to install plastic sheet piling, weep pipes, caps, wales, and support structures such as tiebacks. Does not include grading of the area outside the weir, or stabilization of an outlet channel.													
587		Culvert, less than or equal to 15"	X		X	X	X	111.72	ft	-	67.03	-	94.96
In support of another contracted conservation practice, a 15" or smaller pipe is required to convey water under a farm access road or water control berm on a minimal grade. Cost is based on 30 feet of 15" inside diameter (or less) smooth interior corrugated plastic pipe, excavation and fill using on-site materials, and a small rock outlet apron. Does not include any inlet controls.													
587		Culvert, 18" to 24"	X		X			122.45	ft	-	73.47	-	104.08
In support of another contracted conservation practice, an 18"- 24" pipe is required to convey water under a farm access road or water control berm on a minimal grade. Cost is based on 40 feet of 18-24" inside diameter smooth interior corrugated plastic pipe, excavation and fill using on-site materials, and a 15' wide by 18' long rock outlet apron. Does not include any inlet controls.													
587		Bridge or Culvert, 30" or greater	X		X			143.78	ft	-	86.27	-	122.21
In support of another contracted conservation practice, a pipe arch structure or 30" (or larger) pipe is required to convey water under a farm access road or water control berm on a minimal grade. Cost is based on 40 feet of 30" inside diameter smooth interior corrugated plastic pipe, excavation and fill using on-site materials, and a 18' wide by 24' long rock outlet apron. Does not include any inlet controls.													
606	20	Subsurface Drain (ft)											
606		Phytopthera Control	X					4.80	ft	-	2.16	-	3.36
A 4" or 6" diameter subsurface drain, installed to control the water table in a portion of a field with a documented phytopthera problem that is preventing implementation of a nutrient management system. Cost is based on labor and materials for a pattern drainage system with one common outlet and animal guard. Does not include surface inlets, if required. Does not intend to provide complete drainage of a high water table area. Must comply with NRCS drainage policy.													
606		Spot Drainage	X		X			3.63	ft	-	2.18	-	3.09
A subsurface drain that supports the installation of a contracted structural practice where control of groundwater or seeps is required to ensure integrity of the practice. Cost is based on labor and materials for a one-line 4" drain with a nearby outlet and animal guard. Does not include surface inlets (std 587) or extensive distance to outlet (std 620). Does not apply where a drainage system for cropland or pasture is desired.													
606		Seepage Control with Drainfill	X		X			13.80	ft	-	8.28	-	11.73
A subsurface drain that supports the installation of a contracted structural practice in stony soil where control of groundwater or seeps is required to ensure integrity of the practice. Soil texture or water pressure requires drainfill to be used with the drain pipe. Cost is based on labor and materials for a one-line 6" drain, backfilled with select drainfill, with a nearby outlet and animal guard. Does not include surface inlets (std 587) or extensive distance to outlet (std 620). Does not apply where a drainage system for cropland or pasture is desired.													
600	10	Terrace (ft)											
600		Seeded or Cropped Terrace	X					5.87	ft	-	4.40	-	5.28
On long slopes with excessive erosion, a combination ridge and channel is constructed to break slope lengths and channel water to a safe outlet. Cost is based on construction that does not require any cuts or fills greater than 3', and is typically less than 35' wide. Includes excavation and fill with on-site material, final grading, seedbed preparation, standard fertilizer and lime application, standard cool season grass seed mix, and mulch. Does not include pipe outlet system (std 620) or any provision for crossing by farm equipment.													
612	15	Tree, Shrub Establishment (ac)											
612		Bare root				X	X	786.55	ac	-	550.59	550.59	707.90
Plant a minimum of 200 trees or shrubs per acre in a random pattern to increase canopy density and species diversity and enhance wildlife habitat (grasslands or wooded areas). Cost is based on young bare root plant material, chemical control of invasive species prior to planting, hand planting of bare root stock, installation of tree shelters on no more than 1/2 of the seedlings, and frequent weed control for one year (chemical, mechanical, and/or manual). Does not apply to hedgerow planting (std 422), riparian forest buffer (std 391), or windbreak establishment (std 380).													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
612		Qrt to 1 gallon container				X	X	2,522.55	ac	-	1,765.79	1,765.79	2,270.30
Plant a minimum of 200 trees or shrubs per acre in a random pattern to increase canopy density and species diversity and enhance wildlife habitat (grasslands or wooded areas). Cost is based on medium sized plant material from 1-quart to 1-gallon containers, chemical control of invasive species prior to planting, hand planting of container stock, installation of tree shelters on no more than 1/2 of the trees, and frequent weed control for one year (chemical, mechanical, and/or manual). Does not apply to hedgerow planting (std 422), riparian forest buffer (std 391), or windbreak establishment (std 380).													
612		3 gallon or greater container				X	X	5,488.55	ac	-	3,841.99	3,841.99	4,939.70
Plant a minimum of 200 trees or shrubs per acre in a random pattern to increase canopy density and species diversity and enhance wildlife habitat (grasslands or wooded areas). Cost is based on site conditions requiring large plant material from 3-gallon and larger containers, chemical control of invasive species prior to planting, hand planting of container stock, installation of tree shelters on no more than 1/2 of the trees, and frequent weed control for one year (chemical, mechanical, and/or manual). Does not apply to hedgerow planting (std 422), riparian forest buffer (std 391), or windbreak establishment (std 380).													
612		Interplanting				X	X	910.15	ac	-	637.11	637.11	819.14
Interplant adapted and desirable species at a rate of 70 trees or shrubs per acre into an existing hardwood stand with a canopy of sufficient opening to allow the new plantings to thrive. Cost is based on completing site prep and planting by hand, small container stock with the upper branches above the browse line, installation of tree shelters on no more than 1/2 of the plants, and frequent weed control by mowing for one year. Does not apply to hedgerow planting (std 422), riparian forest buffer (std 391), or windbreak establishment (std 380).													
490 1 Tree/Shrub Site Prep (ac)													
490		Drum Chop				X	X	390.00	ac	-	234.00	234.00	331.50
Following machine removal of non-desirable shrubs and trees (see std. 314), prepare the woodland for planting or natural regeneration by reducing the debris to mulch by a drum chop machine. Cost is based on two passes with the drum chop, with the debris left scattered across the typical 10 acre site. Does not include any stabilization seeding or planting of any trees or shrubs (std 612).													
490		Root Raking				X	X	483.00	ac	-	289.80	289.80	410.55
Following machine removal of non-desirable shrubs and trees (see std. 314), prepare the woodland for planting or natural regeneration by removing roots with a root rake. Cost is based on three passes with the root rake, with the debris left in a loose pile near the mature wooded edge to provide wildlife cover, and hand seeding with a quick-germinating grass to protect against erosion and invasive species. Does not include planting of any trees or shrubs (std 612).													
620 20 Underground Outlet (ft)													
620		Outlet - 10" diameter or less	X	X		X		11.12	ft	-	6.67	6.67	9.45
An underground pipe installed as the only feasible alternative to safely deliver water from another conservation practice to a stable outlet. Cost is based on a 200 foot long outlet. Includes installation and materials for a 8" corrugated plastic pipe and animal guard. Does not include an inlet connection, normally part of the other conservation practice, or outlet protection, not required for this size pipe.													
620		Outlet - 12" to 15" diameter	X	X		X		34.27	ft	-	20.56	20.56	29.13
An underground pipe installed as the only feasible alternative to safely deliver water from another conservation practice to a stable outlet. Cost is based on a 300 foot long outlet. Includes installation and materials for a 12" - 15" pipe, hooded inlet, antiseep collar, outlet protection and animal guard. Does not include surface inlet, such as a catch basin, if required.													
620		Outlet - 18" to 24" diameter	X	X		X		54.05	ft	-	32.43	32.43	45.94
An underground pipe installed as the only feasible alternative to safely deliver water from another conservation practice to a stable outlet. Cost is based on a 300 foot long outlet. Includes installation and materials for a 18" - 24" pipe, hooded inlet, antiseep collar, outlet protection and animal guard. Does not include surface inlet, such as a catch basin, if required.													
620		Outlet - 30" diameter and greater	X	X				70.80	ft	-	42.48	-	60.18
An underground pipe installed as the only feasible alternative to safely deliver water from another conservation practice to a stable outlet. Cost is based on a 250 foot long outlet. Includes installation and materials for a 30" or larger pipe, hooded inlet, antiseep collar, outlet protection and animal guard. Does not include surface inlet, such as a catch basin, if required.													
645 1 Upland Wildlife Habitat Management (ac)													
645		Grassland Habitat Modification		X			X	61.96	ac	46.47	46.47	46.47	55.76
Modify a successional stand of grasses and forbs to provide shelter, cover, and food in the proper amounts and times to sustain the target grassland species during critical portions of their life cycle. Cost is based on mowing or harvesting the grasslands prior to April 15 or after July 15 each year, in a manner as to allow birds to flush safely out of the field. Does not include seeding, fertilizer, or herbicide.													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
645		Chemical Control for Invasive Species					X	40.25	ac	-	-	30.19	36.23
<p>Application of an approved herbicide during the second establishment year of a warm-season herbaceous or tree/shrub wildlife habitat planting to control competing vegetation and ensure stand survival. Typical planting area is between 5 and 40 acres, but treatment is not size dependent. Cost is based on herbicides tank-mixed off-site and applied by tractor spray boom using standard safety procedures and precautions. Field is marked for re-entry time as required by state law. Not applicable on lands currently contracted for a wildlife grassland establishment (std 327, 386, 390, 391), as an herbicide treatment during establishment is included in those scenarios.</p>													
645		Diversified Forest Habitat Creation				X	X	1,294.48	ac	-	-	970.86	1,165.03
<p>Within a forest management planning area, various clearings up to a maximum 3 acres in size will be created to diversify the habitat types. Trees are typically felled by chain saw or machine and removed for chipping. Clearings may be established with native warm season grasses or a mixture of forbs and shrub species depending. Cost is based on felling existing trees within the desired clearing, chemical control of invasive forbs, and seeding with warm season grasses. Does not include removal of roots (practice 490) or off-site removal of felled trees. Payment is only made once for each new forest opening created.</p>													
635 10 Vegetative Treatment Area (ac)													
635		Graded Vegetated Area			X			1,800.00	ac	-	1,350.00	-	1,620.00
<p>An area of herbaceous vegetation planted on a graded slope to provide for sheet flow, installed to treat outflow from an agricultural waste management system. Cost is based on a 200' long x 40' wide treatment area. Includes labor, equipment and materials to grade the area, prepare the seedbed, apply necessary nutrients and lime, plant a seed mix of native and/or introduced fescues, rye and clover, and apply mulch.</p>													
635		Distribution System to Existing Vegetation			X			1,175.00	ea	-	881.25	-	1,057.50
<p>An existing vegetated area that meets the requirements of standard 635 is used as an outflow area from an agricultural waste management system, but the flow needs to be distributed across the area to maximize nutrient uptake. Cost is based on installation of a manifold distribution system consisting of 100 feet of 4" PVC with support mountings. Does not include any grading or seeding.</p>													
635		Vegetated Area with Distribution System			X			7,675.00	ac	-	5,756.25	-	6,907.50
<p>An area of herbaceous vegetation planted on a graded slope to provide for sheet flow, installed to treat outflow from an agricultural waste management system, requiring distribution of the flow across the area. Cost is based on a 200' long x 40' wide vegetated area. Includes labor, equipment and materials to grade the area, prepare the seedbed, apply necessary nutrients and lime, plant a seed mix of native and/or introduced fescues, rye and clover, and apply mulch, and install 100 feet of 4-inch PVC pipe with support mountings.</p>													
367 10 Waste Facility Cover (ea)													
367		Pavilion Roof			X			11.80	sf	-	7.08	-	10.03
<p>Pavilion style roof installed over a waste storage facility to exclude rainwater when a vegetated treatment area is not feasible. Cost is based on installation of footings, posts, headers, trusses/rafters/hoops, purlins, and roof sheathing or cover. Does not include curtains or permit fees, or roof runoff structures (std. 558). Walls, if installed at operator's expense, may preclude NRCS payments as buildings are not allowable under farm bill programs. Roofs over heavy use areas are only allowed when other runoff control options are not feasible due to slope or soil limitations.</p>													
367		Biogas Capture			X			25,000.00	ea	-	18,750	-	22,500
<p>A floating cover over an existing non-earthen waste storage facility designed specifically to collect methane biogas for use on site as an alternate source of fuel. Cost is based on all equipment, materials and labor necessary to anchor and support the cover, exclude oxygen, collect and transfer biogas, flare excess biogas, and provide safety devices including backflow prevention and signage. Does not include methane storage tank or associated energy conversion or transfer mechanisms.</p>													
313 15 Waste Storage Facility (ea)													
313		Dry Stack Facility			X			15.71	sf	-	11.78	-	14.14
<p>Precast concrete block wall 3-sided structure with reinforced concrete floor installed to temporarily store dry animal wastes at a site in close proximity to the animal confinement area. Cost is based on installation of gravel subbase material, poured concrete floor with welded wire mesh reinforcement, concrete blocks, final grading, gravel apron, and seeding with mulch of all disturbed areas. Does not include roof, solid separation or vegetated treatment area (std 635).</p>													
313		Rectangular Concrete Tank			X			3.86	cf	-	2.90	-	3.47
<p>Cast-in-place rectangular concrete tank with walls up to 8 feet high, installed to temporarily store animal wastes at a site in close proximity to the animal confinement area. Cost is based on installation of gravel base, concrete tank, drainfill and backfill, 1 safety push-off, chain link fence with 1 access gate, 6" perimeter drain (outlet within 20' of tank), 10' access ramp, and spoil disposal. Does not include waste transfer to or from tank, or runoff management.</p>													
313		Circular Steel Tank, above grade			X			2.40	cf	-	1.80	-	2.16
<p>Circular steel tank installed above ground to temporarily store animal wastes at a site in close proximity to the animal confinement area. No backfill around tank is required. Cost is based on installation of reinforced concrete foundation, circular steel tank, agitation system, perimeter drain (outlet within 20' of tank), seeding with mulch of all disturbed areas 50' around the tank, and unloading pad. Does not include reception pit or waste transfer to or from tank.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQUIP \$	WHIP \$	HU \$
313		Circular Concrete Tank, 80,000 cf or less			X			2.52	cf	-	1.89	-	2.27
<p>Cast-in-place circular concrete tank, less than 80,000 cf in total volume, installed to temporarily store animal wastes a site in close proximity to the animal confinement area. Cost is based on excavation, subbase material, concrete tank, backfill and drainfill, 10' access ramp, chain link fence with 1 access gate, 1 safety push-off, 6" perimeter drain (outlet within 20' of tank), 20' x 20' concrete unloading pad, spoil spreading, and seeding with mulch of disturbed areas 50' around tank. Does not include waste transfer to or from tank, or runoff management.</p>													
313		Circular Concrete Tank, 80,001 cf or more			X			1.75	cf	-	1.31	-	1.58
<p>Cast-in-place circular concrete tank, greater than or equal to 80,000 cf in total volume, installed to temporarily store animal wastes a site in close proximity to the animal confinement area. Cost is based on excavation, subbase material, concrete tank, backfill and drainfill, 10' access ramp, chain link fence with 1 access gate, 1 safety push-off, 6" perimeter drain (outlet within 20' of tank), 20' x 20' concrete unloading pad, spoil spreading, seeding with mulch of disturbed areas 50' around tank. Does not include waste transfer to or from tank, or runoff management.</p>													
634 15 Waste Transfer (ea)													
634		Gravity System, Loading			X			35,420.00	ea	-	26,565	-	31,878
<p>A system of conduits and structures installed where gravity flow can transport manure from the point of production/collection to a waste storage facility. Cost is based on installation of two gravity hoppers, 150 feet of 30-inch diameter PVC conduit, and all necessary appurtenances. Does not include removal of any obstructions (std. 500), waste storage facilities (std. 313), or machinery needed to collect manure.</p>													
634		Pump System, Loading			X			53,280.00	ea	-	39,960	-	47,952
<p>A system of conduits and structures installed where manure must be pumped from the point of production/collection to a waste storage facility. Cost is based on installation of a concrete reception pit, manure transfer pump, 250 feet of 8-inch diameter PVC pressure conduit with backflow check, and all necessary appurtenances. Does not include removal of any obstructions (std. 500), waste storage facilities (std. 313), or machinery needed to collect manure.</p>													
634		Pump System, Unloading			X			12,075.00	ea	-	9,056.25	-	10,867.50
<p>A vertical PTO transfer/agitator pump used to stir and then transfer manure from a waste storage facility to a loader or spreader for disposal. Cost is based on a 50 HP pump. Other pumps are eligible at the same payment rate. Does not include any transfer conduit.</p>													
614 20 Watering Facility (ea)													
614		Seasonal Trough for Livestock			X			1.93	gal	1.16	1.16	-	1.64
<p>A portable tank, serviced with an above-ground hose from an existing water supply, used to provide a movable supply of water to implement a rotational grazing system. Generally sized to provide a one-day supply of water. Cost is based on purchase of tank and installation of all valves to control the water level. Because the trough is intended to be relocated on a regular basis, does not include a heavy use area around the facility. Payment is limited to one trough per 10 animal units.</p>													
614		Frost-Free Hydrant for Livestock			X			12.72	AU	7.63	7.63	-	10.81
<p>A frost-free hydrant permanently installed to provide year-round water delivery to a pastures used in a rotational grazing system where a tank already exists or is not needed. Cost is based on installation with a permanent connection to underground pipeline, and valves to regulate water levels.</p>													
614		Frost-Free Hydrant and Tank for Livestock			X			44.85	AU	26.91	26.91	-	38.12
<p>A frost-free hydrant and stock tank permanently installed to provide year-round water delivery to a pastures used in a rotational grazing system. Cost is based on installation of tank with a permanent connection to underground pipeline, valves to regulate water levels, and a 10' x 10' gravel with geotextile heavy use area around the tank.</p>													
614		Automatic Waterer for Livestock			X			65.21	AU	39.13	39.13	-	55.43
<p>A permanent and automatic waterer installed to provide a year-round water source in pastures intended for winter use. Includes automatic re-fill feature to eliminate the need for a large tank. Cost is based on installation with connection to underground pipeline and a 10' x 10' gravel with geotextile heavy use area around the facility.</p>													
642 20 Water Well (ea)													
642		Alternative Livestock Water Supply			X			33.29	ft	19.97	19.97	-	28.30
<p>A well installed to replace a surface water supply being used for livestock watering where livestock access to the surface water is causing water quality concerns or where other water sources are not readily available and the well facilitates an improved grazing system with a documented conservation benefit. Cost is based on a 6" well. Includes well drilling, gravel, grout, and screen. Does not include permits, pump (std 533) or pipeline (std 516).</p>													
659 15 Wetland Enhancement (ac)													
659		Macrotopography Restoration					X	1,083.00	ac	-	-	812.25	974.70
<p>Enhance existing wetland hydrology on a small site to provide better habitat for wetland dependent species. Cost is based on restoring the natural irregular surface of the land by backhoe, including filling ditches and/or breaking existing drainage lines. Includes broadcast seeding of native wetlands grasses/forbs for all disturbed areas.</p>													

Practice Code	Lifespan	Practice Name	cropland	organic	livestock	woodland	wildlife	Unit Cost \$	Unit	Payment Rate			
										AMA \$	EQIP \$	WHIP \$	HU \$
657 15 Wetland Restoration (ac)													
657		Small Areas 5 acres of less					X	3,912.50	ac	-	-	2,934.38	3,521.25
Restore existing wetland hydrology on a small site to increase wetland wildlife habitat. Cost is based on creating one low berm (under 3') to collect surface and subsurface water and provide seasonal surface water and saturated soils, with a 10" or smaller outlet pipe structure. Also includes restoring the natural irregular surface of the land by backhoe, with any existing ditches plugged and any existing drainage tiles broken as part of this effort, in order to fully restore the pre-agriculture hydrology. Includes broadcast seeding of native wetlands grasses/forbs for all disturbed areas.													
657		Large Areas greater than 5 acres					X	1,525.85	ac	-	-	1,144.39	1,373.27
Restore existing wetland hydrology on a larger site to increase wetland wildlife habitat. Cost is based on creating a maximum of two low berms (under 3') for each 20 acres to collect surface and subsurface water and provide seasonal surface water and saturated soils, each with a 10" outlet pipe structure. Also includes restoring the natural irregular surface of the land by backhoe, with any existing ditches plugged and any existing drainage tiles broken as part of this effort, in order to fully restore the pre-agriculture hydrology. Includes broadcast seeding of native wetlands grasses/forbs for all disturbed areas.													
644 1 Wetland Wildlife Habitat Management (ac)													
644		Aerial Spraying					X	138.50	ac	-	-	103.88	124.65
One aerial application of an approved wetland herbicide for the control of phragmites or other invasive exotic herbaceous wetland vegetation. Cost is based on application by helicopter on 25 acres. Does not include follow-up spot spraying or hand removal of re-emergent vegetation. Does not include any means to provide natural control through periodic flooding. Assumes natural revegetation of native wetland species will occur.													
644		Ground Spraying					X	115.00	ac	-	-	86.25	103.50
One ground-based application of an approved wetland herbicide for the control of phragmites or other invasive exotic herbaceous wetland vegetation. Cost is based on application by backpack or machine spraying on 5 acres. Does not include follow-up spot spraying or hand removal of re-emergent vegetation. Does not include any means to provide natural control through periodic flooding. Assumes natural revegetation of native wetland species will occur.													
380 15 Windbreak/Shelterbelt Establishment (ft)													
380		Tree/Shrub Windbreak	X	X	X			3.28	ft	1.97	2.46	-	2.95
A multi-row linear planting of trees and/or shrubs to provide a buffer against wind-born sediments or chemicals. Cost is based on two rows of balled trees and shrubs planted in an alternating pattern. One row is 4-5' trees planted on 16' centers. Second row is 30-36" shrubs planted on 5-7' centers. Includes the purchase of plant material, installation, tree shelters, and pre- and post-plant weed control (chemical, mechanical, and/or manual). Payment is calculated on the actual acreage devoted to the windbreak (length x width), regardless of how many rows actually planted.													