



## NJ Farm Bill Programs 2010 AWEPP Practice Catalog

The conservation practices listed below may be eligible for inclusion in an AWEPP program contract, based on the land use and resource concerns identified during the development of a conservation plan. Payments are made 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 (limited resource, socially disadvantaged, or beginning farmer).

Federal AWEPP 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.

Supplemental payments may be available through the NJ Water Supply Authority (NJWSA) where indicated where a "yes" or "case" is indicated. "Case" means that these practice will be reviewed on a case-by-case basis to determine if the practice qualifies for a supplemental payment. Supplemental payments are intended to further off-set the cost to implement the practice. These contracts are negotiated separately from the AWEPP contract.

### AWEPP Practices Available for 2010

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEPP	HU	NJWSA
									\$	\$	\$
<b>472</b>	<b>10</b>	<b>Access Control (ac)</b>									
472		Barrier to Protect Critical Areas		X		X	4.78	ft	3.59	4.30	YES
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.											
<b>309</b>	<b>15</b>	<b>Agrichemical Handling Facility (ea)</b>									
309		Unroofed Facility	X				18.50	sf	13.88	16.65	YES
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	YES
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.											
<b>314</b>	<b>1</b>	<b>Brush Management (ac)</b>									
314		Chemical Control		X	X		93.78	ac	56.27	79.71	NO
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	419.56	NO
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	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
314		Brush Hogging - Vegetation Establishment		X		X	97.80	ac	58.68	83.13	NO
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				1,351.20	ac	810.72	1,148.52	NO
Invasive woody vegetation with 5 to 15 years growth is removed from small areas where a riparian buffer is planned by a hydro-ax or similar machine to prepare the field for planting. 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.											
<b>584 0 Channel Stabilization</b>											
584		Channel Stabilization	X	X	X			ea	-	-	YES
Not included in federal AWEP (requires multi-year engineering and permitting).											
<b>317 15 Composting Facility (ea)</b>											
317		Windrows - Graded Surface		X			0.10	sf	0.06	0.09	YES
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	YES
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	YES
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	YES
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).											
<b>327 5 Conservation Cover</b>											
327		Pollinator Habitat Establishment	X	X		X	902.00	ac	676.50	811.80	YES
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		Hayland to Warm Season Grasses				X	385.05	ac	288.79	346.55	YES
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
327		Cropland to Cool Season Grasses				X	333.55	ac	250.16	300.20	YES
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.											
327		Cropland to Warm Season Grasses				X	311.25	ac	233.44	280.13	YES
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.											
<b>332</b>	<b>0</b>	<b>Contour Buffer Strips</b>									
332		Contour Buffer Strips	X					ac	-	-	YES
Not included in federal AWEP (no reimbursable costs).											
<b>330</b>	<b>0</b>	<b>Contour Farming</b>									
330		Contour Farming	X					ac	-	-	YES
Not included in federal AWEP (no reimbursable costs).											
<b>331</b>	<b>1</b>	<b>Contour Orchard and Other Fruit Area</b>									
340		Winter Cover Crop	X					ac	-	-	YES
Not included in federal AWEP (no reimbursable costs).											
<b>340</b>	<b>1</b>	<b>Cover Crop (ac)</b>									
340		Winter Cover Crop	X				71.50	ac	53.63	64.35	YES
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, planting, and spring plowing to turn the crop into the soil in preparation for next crop planting.											
340		Organic Winter Cover Crop	X				82.10	ac	61.58	73.89	YES
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, planting, and spring plowing to turn the crop into the soil in preparation for next crop planting.											
340		Winter Cover, Planted 2 weeks Early	X				131.50	ac	98.63	118.35	YES
A winter cover crop, typically a small grain, planted prior to October 15 (south of Route 1) or prior to October 1 (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 early harvest of grain, crop drying to reduce moisture, one pass with a disk, planting, and spring spring burn-down of the cover in preparation for next crop planting.											
340		Organic Cover, Planted 2 weeks Early	X				142.10	ac	106.58	127.89	YES
A winter cover crop, typically a small grain, planted prior to October 15 (south of Route 1) or prior to October 1 (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 early harvest of grain, crop drying to reduce moisture, one pass with a disk, planting, and spring spring burn-down of the cover in preparation for next crop planting.											
340		Legume Winter Cover	X				137.90	ac	103.43	124.11	YES
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 hairy vetch seeded at 30 pounds per acre. Includes one pass with a disk to prepare seedbed, planting, and spring plowing of the cover in preparation for next crop planting.											
340		Grass Summer Cover	X				383.50	ac	287.63	345.15	YES
A 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 loss of summer crop production. Includes one pass with a disk to prepare seedbed, planting, and fall burn-down of the cover in preparation for winter cover or grain crop.											
340		Legume Summer Cover	X				443.40	ac	332.55	399.06	YES
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. Includes one pass with a disk to prepare seedbed, planting, and fall burn-down of the cover in preparation for winter cover or grain crop.											

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									\$	\$	\$
<b>342 10 Critical Area Planting (ac)</b>											
342		Critical Area Planting	X	X	X		1,325.20	ac	993.90	1,192.68	YES
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.											
<b>362 10 Diversion (ft)</b>											
362		Diversion, Seeded and Mulched	X	X			5.87	ft	4.40	5.28	YES
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).											
<b>386 10 Field Border (ft)</b>											
386		Field Border, CSG	X			X	269.80	ac	202.35	242.82	NO
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.											
386		Field Border, WSG	X			X	259.50	ac	194.63	233.55	NO
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.											
386		Field Border, organic production	X				297.30	ac	222.98	267.57	NO
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.											
<b>393 10 Filter Strip (ac)</b>											
393		Filter Strip, CSG	X				269.80	ac	161.88	229.33	YES
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.											
393		Filter Strip, WSG	X				259.50	ac	155.70	220.58	YES
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.											
393		Filter Strip, organic production	X				297.30	ac	178.38	252.71	YES
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.											
<b>410 15 Grade Stabilization Structure (ea)</b>											
410		Straight Drop Spillway	X	X			1,371.75	ft	1,028.81	1,234.58	YES
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.											
410		Pipe drop spillway with riser	X	X			10,000.00	ea	7,500.00	9,000.00	YES
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
410	Hooded Inlet		X	X			87.79	ft	65.84	79.01	YES
<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	YES
<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	YES
<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>											
<b>412 10 Grassed Waterway (ac)</b>											
412	Grassed Waterway, Seeded & Mulched		X				0.25	sf	0.19	0.23	YES
<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 Biodegradeable Erosion Control		X				0.42	sf	0.32	0.38	YES
<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	YES
<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>											
<b>561 10 Heavy Use Area Protection (ac)</b>											
<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	NO
<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>											
561	Asphalt Pad			X			4.61	sf	2.77	3.92	NO
<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	NO
<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>											

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									\$	\$	\$
561		Concrete Pad with curb and roof		X			25.78	sf	15.47	21.91	NO
<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>											
<b>449 1 Irrigation Water Management (ac)</b>											
449		Install Manual System, field crops	X				30.23	ac	22.67	27.21	NO
<p>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.</p>											
449		Use Manual System, field crops	X				12.30	ac	9.23	11.07	NO
<p>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.</p>											
449		Install Manual System, specialty crops	X				135.84	ac	101.88	122.26	NO
<p>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.</p>											
449		Use Manual System, specialty crops	X				44.00	ac	33.00	39.60	NO
<p>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.</p>											
449		Install Computer Record Keeping System	X				223.00	ac	167.25	200.70	NO
<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>											

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									\$	\$	\$
449		Use Computer Record Keeping System	X				30.00	ac	22.50	27.00	NO
<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	263.25	NO
<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>											
<b>468 1 Lined Waterway or Outlet (ft)</b>											
468		Loose Riprap Lined	X				4.30	sf	3.23	3.87	NO
<p>Loose rock riprap installed over geotextile in an engineered channel to control erosion on a steep slope at the outlet end of a grassed waterway. 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). Applicable for short outlet sections of a grass channel practice (412, 362, etc).</p>											
468		Concrete or Revetment Mat Lined	X				8.56	sf	6.42	7.70	NO
<p>Concrete or revetment mat installed over a gravel base in an engineered channel to control erosion on a steep slope at the outlet end of a grassed waterway. 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. Applicable for short outlet sections of a grass channel practice (412, 362, etc).</p>											
<b>590 1 Nutrient Management (ac)</b>											
590		Grain Crops	X				25.36	ac	19.02	22.82	YES
<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>											
590		Organic Grain Crops	X				34.22	ac	25.67	30.80	YES
<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>											
590		Specialty Crops	X				52.56	ac	39.42	47.30	YES
<p>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.</p>											
590		Organic Specialty Crops	X				77.40	ac	58.05	69.66	YES
<p>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.</p>											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
<b>500 10 Obstruction Removal (ac)</b>											
500		Hedgerow or Stonerow Removal	X			X	3,280.00	ac	1,968.00	2,788.00	NO
Remove an existing combination stone and/or shrub/tree hedgerow to facilitate the installation of a field-based conservation practice that provides water quality benefits. 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	NO
Remove and dispose of concrete slabs, walls or footings in order to install a more efficient waste handling or other water quality 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.											
<b>512 5 Pasture and Hay Planting (ac)</b>											
512		New Grass Seeding		X			412.00	ac	247.20	350.20	NO
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 orchardgrass, brome grass, 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	221.00	NO
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 orchardgrass, brome grass, 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.											
<b>595 1 Pest Management (ac)</b>											
595		Grain Crops	X				17.67	ac	13.25	15.90	NO
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.											
595		Organic Grain Crops	X				23.34	ac	17.51	21.01	NO
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.											
595		Specialty Crops	X				38.31	ac	28.73	34.48	NO
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.											
595		Organic Specialty Crops	X				69.20	ac	51.90	62.28	NO
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
<b>516 20 Pipeline (ft)</b>											
516		PE pipe, 1" diam or less, native bedding		X			3.74	ft	2.24	3.18	CASE
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.											
516		PE pipe, 1-1/4" to 4" diam, native bedding		X			6.15	ft	3.69	5.23	CASE
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.											
516		PE pipe, 1" diam. or less, select bedding		X			5.04	ft	3.02	4.28	CASE
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.											
516		PE pipe, 1-1/4" to 4" diam., select bedding		X			7.46	ft	4.48	6.34	CASE
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.											
<b>528 1 Prescribed Grazing (ac)</b>											
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.											
528		Basic Grazing using Permanent Fence		X			241.97	ac	145.18	205.67	NO
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).											
528		Intensive Grazing using Movable Fence		X			324.30	ac	194.58	275.66	NO
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).											
<b>533 15 Pumping Plant for Water Control (ea)</b>											
533		Livestock Watering pump system		X			3,624.00	ea	2,174.40	3,080.40	CASE
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
533		Wastewater Transfer pump system		X			7,274.00	ea	4,364.40	6,182.90	CASE
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.											
<b>329 1 Residue Management, No-Till/Strip Till/Direct Seed (ac)</b>											
329		Convert to No-Till Grain System	X				42.00	ac	31.50	37.80	NO
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.											
329		Convert to No-Till Vegetable System	X				144.80	ac	108.60	130.32	NO
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.											
<b>391 15 Riparian Forest Buffer (ac)</b>											
391		3-Zone Buffer using seedling stock	X	X		X	1,081.56	ac	811.17	973.40	YES
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.											
391		3-Zone Buffer using container stock	X	X		X	2,596.56	ac	1,947.42	2,336.90	YES
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.											
<b>390 5 Riparian Herbaceous Cover (ac)</b>											
390		Warm Season Herbaceous Mix	X	X		X	292.25	ac	219.19	263.03	YES
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.											
390		Cool Season Herbaceous Mix	X	X		X	303.35	ac	227.51	273.02	YES
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.											
<b>558 15 Roof Runoff Structure (ea)</b>											
558		Gutter & Downspouts	X	X			1.07	sf	0.59	0.86	NO
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).											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
558		Trench Drain System	X	X			13.80	ft	7.59	11.04	NO
<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>											
<b>570 15 Runoff Management System (ea)</b>											
570		Infiltration Structure	X	X			1.20	gal	0.60	0.90	YES
<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	YES
<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>											
<b>350 20 Sediment Basin (ea)</b>											
350		Earthen Basin	X				0.25	cf	0.13	0.19	YES
<p>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.</p>											
<b>578 10 Stream Crossing (ea)</b>											
578		Gravel Wet Crossing		X		X	2.85	sf	1.71	2.42	YES
<p>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.</p>											
578		Precast Concrete Wet Crossing		X			8.56	sf	5.14	7.28	YES
<p>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.</p>											
<b>395 0 Stream Habitat Improvement and Management</b>											
395		Stream Habitat Improvement and Management	X	X	X	X		sf	-	-	YES
<p>Not included in federal AWEF (annual practice with no reimbursable costs).</p>											
<b>580 20 Streambank and Shoreline Protection (ft)</b>											
580		Bioengineered Protection	X	X	X	X	27.44	sf	20.58	24.70	YES
<p>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.</p>											
580		Bioengineered Protection with rock toe	X	X	X	X	54.87	sf	41.15	49.38	YES
<p>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.</p>											
<b>585 0 Stripcropping</b>											
585		Stripcropping	X					sf	-	-	YES
<p>Not included in federal AWEF (no reimbursable costs).</p>											
<b>587 20 Structure for Water Control (ea)</b>											
587		Inlet Structure	X	X		X	1,920.45	ea	1,440.34	1,728.41	CASE
<p>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).</p>											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
587	Weir Structure		X	X		X	73.16	ea	54.87	65.84	CASE
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			111.72	ea	67.03	94.96	CASE
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	ea	73.47	104.08	CASE
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	ea	86.27	122.21	CASE
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.											
<b>600 10 Terrace (ft)</b>											
600	Seeded or Cropped Terrace		X				5.87	ft	4.40	5.28	YES
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.											
<b>612 15 Tree, Shrub Establishment (ac)</b>											
612	Bare root				X	X	786.55	ac	550.59	707.90	YES
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).											
612	Qrt to 1 gallon container				X	X	2,522.55	ac	1,765.79	2,270.30	YES
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	4,939.70	YES
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	819.14	YES
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).											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
<b>490 1 Tree/Shrub Site Prep (ac)</b>											
490	Drum Chop			X	X	390.00	ac	-	234.00	NO	
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	410.55	NO	
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).											
<b>620 20 Underground Outlet (ft)</b>											
620	Outlet - 10" diameter or less	X	X		X	11.12	ft	6.67	9.45	CASE	
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	29.13	CASE	
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	45.94	CASE	
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	CASE	
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.											
<b>635 10 Vegetative Treatment Area (ac)</b>											
635	Graded Vegetated Area		X			1,800.00	ac	1,350.00	1,620.00	YES	
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.											
635	Distribution System to Existing Vegetation		X			1,175.00	ea	881.25	1,057.50	YES	
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.											
635	Vegetated Area with Distribution System		X			7,675.00	ac	5,756.25	6,907.50	YES	
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
<b>367 10 Waste Facility Cover (ea)</b>											
367	Pavilion Roof			X			11.80	sf	7.08	10.03	CASE
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.											
<b>313 15 Waste Storage Facility (ea)</b>											
313	Dry Stack Facility			X			15.71	sf	11.78	14.14	YES
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).											
313	Rectangular Concrete Tank			X			3.86	cf	2.90	3.47	YES
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.											
313	Circular Steel Tank, above grade			X			2.40	cf	1.80	2.16	YES
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.											
313	Circular Concrete Tank, 80,000 cf or less			X			2.52	cf	1.89	2.27	YES
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.											
313	Circular Concrete Tank, 80,001 cf or more			X			1.75	cf	1.31	1.58	YES
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.											
<b>634 15 Waste Transfer (ea)</b>											
634	Gravity System, Loading			X			35,420.00	ea	26,565	31,878	NO
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.											
634	Pump System, Loading			X			53,280.00	ea	39,960	47,952	NO
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.											
634	Pump System, Unloading			X			12,075.00	ea	9,056.25	10,867.50	NO
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.											

Practice Code	Lifespan	Practice Name	cropland	livestock	woodland	wildlife	Unit Cost \$	Unit	AWEP	HU	NJWSA
									\$	\$	\$
<b>638</b>	<b>0</b>	<b>Water and Sediment Control Basin</b>									
638		Water and Sediment Control Basin	X	X				ea	-	-	YES
Not included in federal AWEF (not normally associated with agricultural operations).											
<b>614</b>	<b>20</b>	<b>Watering Facility (ea)</b>									
614		Seasonal Trough for Livestock		X			1.93	gal	1.16	1.64	CASE
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.											
614		Frost-Free Hydrant for Livestock		X			12.72	AU	7.63	10.81	CASE
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.											
614		Automatic Waterer for Livestock			X		44.85	AU	26.91	38.12	CASE
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.											
614		Frost-Free Hydrant and Tank for Livestock		X			65.21	AU	39.13	55.43	CASE
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.											
<b>642</b>	<b>20</b>	<b>Water Well (ea)</b>									
642		Alternative Livestock Water Supply		X			33.29	ft	19.97	28.30	CASE
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).											
<b>658</b>	<b>0</b>	<b>Wetland Creation</b>									
658		Wetland Creation				X	0.00	ac	-	-	YES
Not included in federal AWEF (creation of wetlands in upland areas).											
<b>659</b>	<b>15</b>	<b>Wetland Enhancement (ac)</b>									
659		Macrotopography Restoration				X	1,083.00	ac	812.25	974.70	YES
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.											
<b>657</b>	<b>15</b>	<b>Wetland Restoration (ac)</b>									
657		Small Areas 5 acres or less				X	3,912.50	ac	2,934.38	3,521.25	YES
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	YES
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.											