

EQIP Practice Guide

Massachusetts FY 2012

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
102	Comprehensive Nutrient Management CAP	No.	1	Small CNMP	No.	• Small AFO with < 100 a.u. and < 100 acres of cropland.	<ul style="list-style-type: none"> • These are National schedules, except for CNMP. • Conservation Activity Plans (CAP) must be prepared by a certified Technical Service Provider (TSP) to be eligible for payment. • Plans must comply with CAP criteria listed in Section III of MA eFOTG. • Includes evaluation of all components of plan as needed, plan write-up, and recordkeeping documents.
				Medium CNMP		• Medium sized AFO with 100-250 a.u. and 100-250 acres of cropland.	
				Large CNMP		• CAFO with >250 animal units and >200 acres of cropland.	
104	Nutrient Management CAP	No.	1	NM CAP <100 acres	No.	• May be used for AFO that does not need storage or fruit/vegetable operations.	
				NM CAP 101-300 acres			
				NM CAP >300 acres			
106	Forest Management CAP	No.	1	FMP < 50 acres	No.	• Scenarios by size ranges.	
				FMP 51-100 acres			
				FMP 101-200 acres			
				FMP 201-400 acres			
				FMP 401-600 acres			
				FMP 601-1000 acres			
110	Grazing Management CAP	No.	1	GMP < 100 acres	No.	• Scenarios by size ranges.	
				GMP < 1500 acres			
				GMP 1500-5000 acres			
				GMP > 5000 acres			
114	Integrated Pest Management CAP	No.	1	IPM CAP	No.	• One size fits all operations.	
118	Irrigation Water Management Plan CAP	No.	1	IWM CAP	No.	• One size fits all operations	
122	Agricultural Energy Management - Headquarters	No.	3	Livestock - Small < 70 AU	No.	<ul style="list-style-type: none"> • Farm Headquarters based energy efficiency. • Must meet specifications outlined in ASABE S16 standard. 	
				Livestock - Medium 70-300 AU			
				Livestock - Large 301-2500 AU			

Note: Scenarios describe *typical* uses of each conservation practice in the state, but they are *not exclusive of all* alternatives that meet the conservation practice standards. Practice applications that are not covered in the typical scenarios must be approved by the state program staff.

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
	CAP			Livestock - XLarge >2500 AU			
				Non-Livestock - Single Enterprise			
				Non-Livestock - Two Enterprises			
				Non-Livestock - Three Enterprises			
				Mixed Enterprises			
124	Agricultural Energy Management - Landscape CAP	No.	3	Non-Irrigated < 50 acres	No.	<ul style="list-style-type: none"> Landscape based energy efficiency. Must meet specifications outlined in ASABE S16 standard. 	
			Non-Irrigated 50-499 acres				
			Non-Irrigated 500-4,999 acres				
			Non-Irrigated >5,000 acres				
			Irrigated < 50 acres				
			Irrigated 50-499 acres				
			Irrigated 500-4,999 acres				
			Irrigated >5,000 acres				
130	Drainage Water Management Plan	No.	1	DWM CAP with Map	No.	<ul style="list-style-type: none"> One size fits all operations. 	
				DWM CAP without Map			
138	Conservation Plan Supporting Organic Transition - CAP	No.	1	Conservation Plan Supporting Organic Transition	No.	<ul style="list-style-type: none"> One size fits all operations. 	
142	Fish and Wildlife Habitat CAP	No.	1	Fish and Wildlife CAP	No.	<ul style="list-style-type: none"> One size fits all operations. 	
146	Pollinator CAP	No.	1	Pollinator CAP	No.	<ul style="list-style-type: none"> One size fits all operations. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
309	Agrichemical Handling Facility	No.	15	Facility without Roof	SF	<ul style="list-style-type: none"> A curbed, concrete pad (drive-through type assumed) without a roof Includes excavation, sand or gravel for subgrade, concrete floor with curbs, sealant, pump, sump, etc; also rinsate tanks, eyewash, lockers, if needed. See Waste Facility Cover (367) for the roof. 	
313	Waste Storage Facility	No.	15	Stacking Facility	CF	<ul style="list-style-type: none"> Cost per cubic feet of nominal total structure capacity (H x W x L) 3-sided concrete facility with concrete floor assumed. Includes all excavation, gravel, and earthfill for construction 5 months storage used as average situation Other associated practices not included: drainage tubing for walls (606), fence (382), seeding (342), roof (367). Add these practices separately as needed. 	<ul style="list-style-type: none"> See CPM 440-V – 515.91(B)(xi), Ineligible Costs – Buildings. The rate for facilities that provide the combined functions of waste storage, barnyard area protection and housing, will be prorated to 2/3 of the total eligible costs of the basic structure, thereby resulting in a payment rate of 50%. The rate for the roof (367) must also be capped at 50%.
				Concrete Liquid Storage	CF	<ul style="list-style-type: none"> Cost per cubic feet of nominal total structure capacity (H x W x L) 4-sided concrete facility using standard MA approved walls and concrete floor assumed. Includes all excavation, gravel, and earthfill for construction 6 months storage used as average situation Other associated practices not included: drainage tubing for walls (606), fence (382), waste transfer (634), seeding (342), roof (367). Add these practices separately as needed. 	
				Bedded Pack Facility	SF	<ul style="list-style-type: none"> Cost per square feet of floor area (including inside footers) Average scenario includes 4 ft concrete walls on the sides with both ends open and a concrete floor. Includes all excavation, gravel, and earthfill for construction. Other associated practices not included: drainage tubing for walls (606), fence (382), seeding (342), roof (367). Add these practices separately as needed. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Relocated SlurryStore	CF	<ul style="list-style-type: none"> Cost per cubic feet of nominal total structure capacity <u>Used</u> (approved relocated structure), with foundation, concrete floor, new stainless steel starter ring, side-mount pump. Other associated practices not included: waste transfer (634 - reception pit, pump, and pipe), seeding (342). Add these practices separately. 	
				Glassed-Lined Steel Tank scenarios for: < 50,000 ft ³ 50,000 – 100,000 ft ³ 100,000 – 200,000 ft ³ 200,000 – 400,000 ft ³ > 400,000 ft ³	CF	<ul style="list-style-type: none"> Cost per cubic feet of nominal total structure capacity <u>New</u> glassed lined steel (GLS) tank (SlurryStore or comparable pre-approved structure); installed, with side-mount pump Other associated practices not included: waste transfer (634 - reception pit, pump, and pipe), seeding (342). Add these practices separately. 	
				Wastewater Storage Tank	Gallon	<ul style="list-style-type: none"> A storage tank to temporarily store silage leachate or milkhouse wastewater. Includes 50 ft of PVC pipe and sewage pump. 	
314	Brush Management	AC	10	Light Mechanical	AC	<ul style="list-style-type: none"> Pastures or wildlife land of various sizes with woody plants encroaching on the edges and throughout the field due to under utilization of the pasture or field. Minimum treatment area is 0.1 acre or more of woody plants. Below this amount should be controlled through manual clipping. After treatment, livestock grazing should keep the woody vegetation under control and undesirable plants are controlled or eradicated. 	<ul style="list-style-type: none"> Practice eligible on all lands except active cropland.
				Medium Mechanical		<ul style="list-style-type: none"> Pastures or wildlife land of various sizes with woody plants encroaching on the edges and throughout the field due to under utilization of the pasture or field. Minimum treatment area is 0.1 acre or more of woody plants. Undesirable plants are controlled or eradicated and desirable forage species become dominant cover. After treatment, livestock grazing should keep the woody vegetation under control and undesirable plants are controlled or eradicated. 	
				Mechanical-Chemical		<ul style="list-style-type: none"> Pastures, wildlife land, forests and early successional habitats of various sizes with woody plants encroaching 	<ul style="list-style-type: none"> Rate is for 2 separate treatments

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						throughout. At least 1 mechanical and 1 herbicide treatment is needed to control the target species, and annual monitoring is necessary. Minimum treatment area is 0.1 acre or more of woody plants. Undesirable plants are controlled or eradicated.	
				Moderate Chemical Control		<ul style="list-style-type: none"> Sites where chemical control of invasive exotics with backpack sprayer (foliar), cut-stump treatments or basal bark treatments are required. Access is good and the general coverage of the invasive plants is less than 75%. Typical size of this scenario is variable ranging from an acre to many acres. 	<ul style="list-style-type: none"> Rate is for 2 separate treatments
				Difficult Chemical Control		<ul style="list-style-type: none"> Sites where chemical control of invasive exotics with backpack sprayer (foliar) or for dense areas where cut-stump treatments or basal bark treatments are required. Access is very poor due to distance or heavy slash. Typical size of this scenario is small; generally an acre or less to address a dense stand of invasive plants. 	<ul style="list-style-type: none"> Rate is for 2 separate treatments
315	Herbaceous Weed Control	AC	5	Phragmites Control	AC	<ul style="list-style-type: none"> Cost per acre for mechanical and chemical control of non-native <i>Phragmites</i>. 	<ul style="list-style-type: none"> Practice eligible on all lands except active cropland. Rate is for 2 separate treatments
				Purple Loosestrife Control-Biological		<ul style="list-style-type: none"> Cost per acre for release of <i>Galerucella</i> beetles. 	
				Invasives Control-Chemical/Mechanical		<ul style="list-style-type: none"> Cost per acre for treatment of herbaceous invasive plants with foliar systemic herbicides OR hand pulling of plant and roots OR flaming of Garlic Mustard (<i>Alliaria petiolata</i>) 	
				Chemical Control of Bedstraw-Perennial Weeds in Hay		<ul style="list-style-type: none"> Cost per acre for chemical treatment of bedstraw or other hard-to-kill perennial weeds. Weed seed production must be eliminated with mowing Practice must be scheduled for two consecutive years. Pasture and Hayland Planting (512) may be scheduled if vegetative cover (after chemical treatments) is reduced to less than 75%. 	<ul style="list-style-type: none"> Practice is ONLY eligible on permanent pasture and hayland. Eligible for payment for 2 treatment years. Weed seed production must be controlled with mowing during the treatment years.
				Tillage Control of Bedstraw-Perennial Weeds in Hay		<ul style="list-style-type: none"> For CERTIFIED ORGANIC farms to perform cultural (tillage) control of bedstraw or other hard-to-kill perennial weeds. Practice should be scheduled for two consecutive years. Summer cover crops (340) must be scheduled for two 	<ul style="list-style-type: none"> Practice is ONLY eligible on permanent pasture and hayland.

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<p>consecutive growing seasons.</p> <ul style="list-style-type: none"> Annually tilled cash crops are NOT permitted due to limitations in practice standard; practice may not be applied on active cropland. Pasture and Hayland Planting (512) should be scheduled following the second year of 315. 	
316	Animal Mortality Facility	No.	15	Concrete Paving	SF	<ul style="list-style-type: none"> For windrow composting of dead animals in an already enclosed facility, where only a concrete floor is required. 	
				Mortality Bin Composter		<ul style="list-style-type: none"> Priced per sq. ft. of bin area, excluding apron (e.g., 4 bins @ 5'x5' = 100 sf) Costs include concrete floor and apron, timber bins, timber or concrete walls, roof 	
317	Compost Facility	No.	15	Concrete Paving	SF	<ul style="list-style-type: none"> Costs per square foot for reinforced concrete paving, which includes all excavation, fill, and crushed stone. Add seeding (342) and roof (367) separately. 	
				Concrete Paving, Curbs		<ul style="list-style-type: none"> Costs per square foot for reinforced concrete paving, which includes all excavation, fill, and crushed stone. Add seeding (342) and roof (367) separately. Concrete curbs included; combination of normal and drive-over curbs 	
				Asphalt Paving		<ul style="list-style-type: none"> Costs per square foot for asphalt paving (3" base and 2" top course), which includes all excavation, fill, and crushed stone. Add seeding (342) and roof (367) separately. 	
				Asphalt Paving, Curbs		<ul style="list-style-type: none"> Costs per square foot for asphalt paving (3" base and 2" top course), which includes all excavation, fill, and crushed stone. Add seeding (342) and roof (367) separately. Asphalt curbs included; combination of normal and drive-over curbs 	
				Compacted Gravel Paving		<ul style="list-style-type: none"> Costs per square foot for compacted gravel paving, which includes all excavation, fill, geotextile, crushed stone, and stone dust. Add seeding (342) and roof (367) separately. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Bin Composter		<ul style="list-style-type: none"> • Priced per sq. ft. of bin area, excluding apron (e.g., 4 bins @ 5'x5' = 100 sf) • Costs Include concrete floor and apron, timber bins, timber or concrete walls, roof 	
324	Deep Tillage	AC.	1	Chisel, Rip, Subsoiling > 10"	AC	<ul style="list-style-type: none"> • Deep plowing (10" or more). Benchmark condition for soil compaction shall be measured with a dial penetrometer and shall exceed 200 PSI to be considered a resource concern. 	<ul style="list-style-type: none"> • For compaction >200 psi (document penetrometer reading)
327	Conservation Cover	AC	5	Between Rows of Perennial Crops	AC	<ul style="list-style-type: none"> • Cost includes seed bed prep, soil amendments & application, seed and seeding 	<ul style="list-style-type: none"> • Vegetative practice rule (ref. 515.81). • For land use conversion to wildlife.
				Convert Cropland to Cool Season Grasses For Wildlife		<ul style="list-style-type: none"> • Cost includes seed bed prep, soil amendments and application, seed and seeding • Includes forgone income based on hay/corn rotation 	
				Convert Cropland to Warm Season Grasses For Wildlife		<ul style="list-style-type: none"> • Cost includes soil amendments and application, seed, and seeding costs • Includes forgone income based on hay/corn rotation 	
				Pollinator		<ul style="list-style-type: none"> • Minimum ½ acre plots seeded with a mix of 9 species to enhance pollinator habitat, includes seed bed preparation, seed, and chemical weed control 	
				Pollinator enhancement – plugs		<ul style="list-style-type: none"> • 2000 SF planting of forbs into existing pollinator habitat 	
328	Conservation Crop Rotation	AC	1	Hay/crop Rotation	AC	<ul style="list-style-type: none"> • For livestock/forage systems • Costs DO NOT include the additional establishment of a hay rotation • Pasture & Hayland Planting (512) should also be planned. 	<ul style="list-style-type: none"> • Land mgt practice (ref. 515.81). • Fields have been in continuous annually tilled row crops. • Length of rotation into hay must be a minimum of 5 years;

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Vegetable Rotation		<ul style="list-style-type: none"> Costs DO NOT include the establishment of green manure during the one-year fallow period; Cover Crop (340) should be scheduled for one-year green manure fallow period. Costs include forgone income for one-year green manure fallow period. 	<ul style="list-style-type: none"> vegetable rotations must be 4-5 years and must include 1 year fallow (green manure). Planned rotation systems must meet soil tolerance criteria per RUSLE2 Limited to one payment, paid when rotation goes into hay or fallow/green manure for vegetables.
329	Residue Mgt., No Till/Direct Seed	AC	1	No-till Establishment of Row Crops	AC	<ul style="list-style-type: none"> Costs include spray-down, seed treatment and no-till planting (not the seed) 	<ul style="list-style-type: none"> Land management practice (ref. 515.81).
330	Contour Farming	AC	5	Establishment	AC	<ul style="list-style-type: none"> To establish practice. 	<ul style="list-style-type: none"> Land mgt. practice (ref. 515.81). must be documented.
338	Prescribed Burning	AC	1	Prescribed Burn	AC	<ul style="list-style-type: none"> Forestland, native pasture, wildlife land or other lands where undesirable vegetation, plant disease, wildfire hazards, or other ecological aspects of site need restoration or enhancement by controlled fire. Preparation, approval and installation Performed by authorized specialist Burn permit required 	<ul style="list-style-type: none">
340	Cover Crop	AC	1	Legume	AC	<ul style="list-style-type: none"> A cover crop of hairy vetch, oats and forage radish is established in the early fall after vegetable harvest. Erosion from wind and water is minimized. Residual nitrogen is captured by the cover crop, phosphorus transport is reduced. 	<ul style="list-style-type: none"> Vegetative practice rule (ref. 515.81). Cover crop must be established by seeding date in the Cover Crop (340) Specification Guide.
				Organic Legume		<ul style="list-style-type: none"> A cover crop of organic hairy vetch, oats and forage radish is established in the early fall after vegetable harvest. Erosion from wind and water is minimized. Residual nitrogen is captured by the cover crop, phosphorus transport is reduced. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Organic Small Grain or Grass		<ul style="list-style-type: none"> Organic winter rye is seeded after corn harvest. Erosion from wind and water is minimized. Residual nitrogen is captured by the cover crop, phosphorus transport is reduced, and water quality is improved. Cover crop is terminated in the spring. 	
				Small Grain or Grass		<ul style="list-style-type: none"> Winter rye is seeded after corn harvest. Erosion from wind and water is minimized. Residual nitrogen is captured by the cover crop, phosphorus transport is reduced, and water quality is improved. Cover crop is terminated in the spring. 	
				Seasonal High Tunnel - Legume		<ul style="list-style-type: none"> A cover crop of organic hairy vetch, oats and forage radish is established in the early fall after vegetable harvest. Residual nitrogen is captured by the cover crop, phosphorus buildup is reduced. Cover crop is terminated in the spring. 	
342	Critical Area Planting	AC	10	Field Erosion	AC	<ul style="list-style-type: none"> Severely eroding crop fields protected by permanent vegetation Use farm equipment to disk plow, harrow, seed and spread lime/fertilizer Manual labor to spread mulch Seeding Mix #5 - Specification Guide (cool season grasses) 	<ul style="list-style-type: none"> Vegetative practice (ref. 515.81).
			Disturbed Areas		<ul style="list-style-type: none"> For construction sites, disturbed areas, or steep eroding banks Small bulldozer used to prepare site and track seed Includes material and hand labor for lime, fertilizer, seed and mulch Seeding Mix #4 - Specification Guide (warm/cool season grass mix) 		
			Spoil Banks		<ul style="list-style-type: none"> Spoil banks, low embankments, sand/gravel pits, steep slopes, roadsides Small bulldozer used to prepare site and track seed Includes material and hand labor for lime, fertilizer, seed and mulch Seeding Mix #3 - Specification Guide (excessively 		

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Manual Herbaceous Seeding		drougthy/low pH soils) <ul style="list-style-type: none"> Steep eroding bank where conventional equipment cannot be used Hand tools and labor to prepare site, lime, fertilize, seed and mulch Low-maintenance herbaceous seeding mixture (Mix #10) 	
				Tree & Shrub Establishment	AC	<ul style="list-style-type: none"> Steep eroding bank (25+% slopes) Hand tools and labor to prepare site, lime, fertilize, plant, seed and mulch Wattles used at an offset of 10 feet Live stakes used at 8 ft on center to hold wattles in place Low rate grass seeding (conservation mix/oats) to help establish site 	
350	Sediment Basin	No.	20	Settling Facility, Concrete	CF	<ul style="list-style-type: none"> For Ag waste purpose; Used primarily for barnyard runoff to settle solids prior to discharge to treatment strip Cost per cubic feet of nominal total structure capacity. Use Excel Barnyard Settling Facility Design worksheet (in WWTS workbook) to size facility. Includes screen box and filter Other associated practices not included: waste transfer (634), seeding (342). Add these practices separately. 	
356	Dike	FT	20	Cranberry Dike, mineral soils	LF	<ul style="list-style-type: none"> Cranberry dikes located over predominately mineral foundation soils, where little settlement is anticipated. Includes all work need to construct the dike. Add Seeding (342) separately. 	
				Cranberry Dike, organic soils		<ul style="list-style-type: none"> Cranberry dikes on organic soils where significant settlement is expected; includes successive applications of fill to stabilize dike. Add Seeding (342) separately. 	
362	Diversion	FT	10	Diversion	LF	<ul style="list-style-type: none"> Includes all excavation and earthfill needed to construct the diversion. Does not include underground outlet and riser (620), subsurface drainage (606), and seeding (342). Add these practices separately. 	
366	Anaerobic Digester	No.	25	Digester, Controlled Temperature	No. of milking	<ul style="list-style-type: none"> Priced per milking cow for the design capacity 	<ul style="list-style-type: none"> Projects must have feasibility study reviewed to determine

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
					cows	<ul style="list-style-type: none"> Does not include generator, solids separation, or storage components. 	<ul style="list-style-type: none"> feasibility and eligible costs prior to contract signing. Generator not eligible for payment
367	Roofs and Covers	No.	10	Timber Roof	SF	<ul style="list-style-type: none"> Cost per square foot of the roof footprint, including the roof overhangs. 	<ul style="list-style-type: none"> Can only add a roof to an existing facility (309, 313, 317, 561) if the facility meets the applicable NRCS standard. Roofs for bedded pack or loose house barns that provide the combined functions of waste storage, barnyard area protection and housing shall be prorated for 2/3 of the total eligible costs of the basic structure (Ref. CPM 440-V – Amendment MA-3). Need to cap the rate for the roof to 50%.
				Hoop Roof on Walls		<ul style="list-style-type: none"> Cost per square foot of the roof footprint Cost of walls not included 	
				Hoop Roof on Timber Posts		<ul style="list-style-type: none"> Cost per square foot of the roof footprint Costs include timber foundation posts 	
374	Farmstead Energy Improvements	No.	8	Greenhouse Energy/Shade Screens	SF	<ul style="list-style-type: none"> Prices for 2 size ranges of jobs (< & > 10,000 SF) Truss-to-truss or gutter-to-gutter ceiling screens and side screens with mechanical system to close and open. Does not cover replacement screens 	<ul style="list-style-type: none"> Energy Audit report required prior to ranking.
			10	Greenhouse HAF Fan	EA	<ul style="list-style-type: none"> Horizontal Air flow fan system, consisting of several high efficiency fans. 	
			20	Heating Systems	kBTU/hr	<ul style="list-style-type: none"> Priced per thousand BTU/Hour input power rating Replacement of inefficient natural gas, propane, or fuel oil unit heater or boiler, venting materials, and installation 	
			10	Maple Reverse Osmosis (RO)	GPH	<ul style="list-style-type: none"> Priced based on gallon per hour (gph) increase in processing Includes new RO system, replacement RO system, new membrane/vessel 	
			10	Maple Steam-Enhanced	SF	<ul style="list-style-type: none"> Price based on square feet of steam pan 	
			20	Maple Evaporator		<ul style="list-style-type: none"> Priced based on square feet of unit Replacement of wood or oil-fired inefficient evaporators 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
378	Pond	No.	20	Excavated, spread < 300'	CY	<ul style="list-style-type: none"> Costs per cubic yard of excavation. Choose the appropriate method of handling the spoil. Add seeding (342) separately 	<ul style="list-style-type: none"> For excavated livestock watering ponds only (not embankment) Must meet all applicable provisions and permit requirements, including US ACOE jurisdiction, National Food Security Act and other federal, state and local regulations, prior to contract obligation.
				Excavated, hauled & spread on-site			
				Excavated, hauled off-site			
380	Windbreak/ Shelterbelt Establishment	LF	15	2 – Row Windbreak	LF	<ul style="list-style-type: none"> Assumes 2 rows of plants (1 row of conifer trees and 1 row of deciduous shrubs) to be planted upwind of Headquarters OR downwind of origin of possible pesticide drift. 	
382	Fence	LF	20	Chain Link	LF	<ul style="list-style-type: none"> A chain link fence is installed on a 400' square concrete WSF to provide access control and safety. A typical fence may include a 4ft high chain link mesh. Metal posts are typically at 10ft o.c. Assumed 2 heavy-duty gates and 4 corner braces. 	<ul style="list-style-type: none"> Safety fence for exclusion from a potentially dangerous area – not for grazing infrastructure If a permanent fencing system different from these scenarios is used, it must follow manufacturers' specifications (included in documentation) and match the closest scenario by price. Permanent fence is eligible when used in conjunction with a prescribed grazing system on land that is currently grazed, or when excluding animals from water resources, or for protecting practices or safety in association with a practice. Boundary or property line fences are ineligible, except to protect habitat for wildlife or to exclude livestock from environmentally sensitive areas. Ref. 515.81(E) Ineligible
				Portable Electric Fence		<ul style="list-style-type: none"> A polywire electrical fence is installed to facilitate improved prescribed grazing management. A typical fence includes three strands of portable electric wire with fiberglass or plastic type temporary posts at 20 ft o.c. The temporary fence is connected 	
				Wire Fence		<ul style="list-style-type: none"> A high-tensile wire fence is installed according to specifications for prescribed grazing management or other livestock control. A typical fence includes 3 high-tensile electric strands with posts at 30ft o.c., eight corner bracings, 2 heavy-duty gates, 	
				Wooden Fence - Boards		<ul style="list-style-type: none"> Typical installation procedure for 3-board fence: dig fence holes 8' o.c. just beyond the concrete slab or curb and around the perimeter of the barnyard. Install CCA treated fence posts 36" into the ground. Attach 3-2"x6" CCA treated boards to the inside 	
				Woven Wire		<ul style="list-style-type: none"> A woven wire fence is installed for access control and safety. A typical fence includes a 4ft high woven wire with a single strand of barbed wire at the top. Posts are typically installed at 10ft o.c. Fence holes are augured at a minimum 3' in depth. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
							Practices.
384	Forest Slash Treatment	AC	10	Slash treatment	AC	<ul style="list-style-type: none"> Includes all costs to treat slash (lopping, crushing, hauling, burning or chipping) so that ultimate conservation objective can be achieved. 	<ul style="list-style-type: none"> Only for situations where forest slash prevents conservation objective documented in FMP.
386	Field Border	AC	10	Establishment – corn silage	AC	<ul style="list-style-type: none"> Cost includes soil amendments and application, seed and seeding. Non native cool season grasses Includes forgone income based on conversion of silage corn land 	<ul style="list-style-type: none"> Only for NEW field borders where cropland is removed from production.
				Establishment - vegetables		<ul style="list-style-type: none"> Cost includes soil amendments and application, seed and seeding. Non native cool season grasses Includes forgone income based on conversion of sweet corn crop 	
				Establishment – pollinator habitat		<ul style="list-style-type: none"> Cost includes soil amendments and application, seed and seeding. A minimum of 9 flowering plant species must be included in the seed mix. Includes forgone income based on conversion of sweet corn crop and loss of profit on 80 CWT 	
391	Riparian Forest Buffer	AC	15	Zones 1 and 2	AC	<ul style="list-style-type: none"> Located adjacent to and up-gradient from watercourses or water bodies Planted to trees and shrubs at a density of 200 plants/ ac Trees have protectors 	<ul style="list-style-type: none"> Minimum widths of zones must meet standard
				Natural Regeneration		<ul style="list-style-type: none"> Located adjacent to and up-gradient from watercourses or water bodies Control of invasive plants through mowing, chemical treatment and/or shrub/sapling management 	
				Buffer in Forest		<ul style="list-style-type: none"> Cost includes on-the-ground designation of buffer and enhancement planting of 2-0 seedlings at density of 100 trees per acre Trees do NOT have protectors 	
393	Filter Strip	AC	10	Seeding and Mulch	AC	<ul style="list-style-type: none"> Costs of seeding and mulch taken from Critical Area Planting (342) for disturbed areas 	
394	Firebreak	LF	5	Construct Firebreak	SF	<ul style="list-style-type: none"> Cost includes clearing of woody vegetation/flammable material to create firebreak 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
400	Bivalve Aquaculture Gear and Biofouling Control	AC	1	Epifaunal Culture	AC	<ul style="list-style-type: none"> Biofouling control and gear management activities, monitoring and recordkeeping. 	<ul style="list-style-type: none"> For bivalve aquaculture Associated practices: Access Control (472), Integrated Pest Management (595).
				Infauanal Culture		<ul style="list-style-type: none"> Bio fouling control and gear management activities, monitoring and recordkeeping. 	
410	Grade Stabilization Structure	No.	15	Pipe Detention Structure	EA	<ul style="list-style-type: none"> Pipe structure with earthfill, where sufficient temporary storage is available to handle the design flow while reducing the size of the principal spillway pipe. Consists of CMP or HDPE pipe with elbow and bands, and associated earthwork. Seeding included. 	
				Full Flow Pipe Structure		<ul style="list-style-type: none"> Pipe structure with earthfill, with no temporary storage. Pipe handles the entire design flow. Consists of CMP or HDPE pipe and riser, with associated excavation and earthfill. Seeding included. 	
				Rock Chute Structure	LF	<ul style="list-style-type: none"> Same price as Lined Waterway. Consists of excavation, filter (sand or geotextile), riprap. Seeding included. 	
				Catch basin, ≤ 24" pipe		<ul style="list-style-type: none"> For grade control; structure might be detention or full flow. Includes catch basin, pipe, flap-type animal guard, if needed. Also includes earthwork required for berm to ensure pipe carries the flow. If for surface drainage, use Underground Outlet (620) 	
				Catch basin, > 24" pipe		<ul style="list-style-type: none"> For grade control; structure might be detention or full flow. Includes catch basin, pipe, flap-type animal guard, if needed. Also includes earthwork required for berm to ensure pipe carries the flow. If for surface drainage, use Underground Outlet (620) 	
412	Grassed Waterway	AC	10	Grass	LF	<ul style="list-style-type: none"> Includes grading and shaping, excavation and fill, seeding, and an erosion control blanket. Does not include subsurface drainage (606). Add separately if needed. 	
				Stone Center		<ul style="list-style-type: none"> Includes the above costs, but also includes a stone center (1/3 of total width), used to handle continuous low flows where vegetation cannot be established due to wetness. The price does not include larger rock for erosion control 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
430	Irrigation Pipeline	FT	20	Sprinkler, hi-flow systems	Diam. In-Ft	due to excess velocity, which would be handled under 468, Lined Waterway or Outlet.	
						<ul style="list-style-type: none"> Irrigation mainline for higher flow systems, such as center pivot, traveling gun, big gun, and solid set (non-cranberry), where few hydrants are needed Includes valves, fittings, thrust blocks, and appurtenances Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 500 ft of 4 inch pipe = 2000 diam in-ft. 	
				Sprinkler, portable laterals		<ul style="list-style-type: none"> Same as above, except assumes more hydrants. Use for portable lateral or similar situations where more hydrants are needed. 	
				Microirrigation systems (2 scenarios)	EA	<ul style="list-style-type: none"> Mainline for micro systems, separate scenarios for ≤ 2" and for > 2" mainline. Costs include manifolds, valves, valve boxes, and appurtenances. Includes screen or disk filter. If sand media filter is needed, add as a component. Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 500 ft of 2 inch pipe = 1000 diam in-ft. 	
				Media Filter, Single Tank Filter		<ul style="list-style-type: none"> Add as a separate component for micro-irrigation systems that need a sand media filter. Small micro system with a single tank; no flushing manifold. 	
				Media Filter, Double Tank Filter	<ul style="list-style-type: none"> Add as a separate component for micro-irrigation systems that need a sand media filter. For larger micro systems, and with flushing manifold. 		
				Cranberry, Mainline	AC	<ul style="list-style-type: none"> The mainline for a cranberry irrigation system that will achieve the minimum 85% CU. Different cost share rates for systems that meet the minimum criteria for washoff time (8 minutes maximum), and for those systems that meet the higher criteria for washoff time (5 minutes maximum). Includes all materials and labor to install the mainline. Sand filters for cranberry irrigation systems are covered under Irrigation System, Sprinkler (442) 	
Cranberry Mainline Retrofit	Diam. In-Ft	<ul style="list-style-type: none"> Sub-mains brought into the bog to improve washoff times. Different cost share rates for meeting minimum (8 minutes) vs. higher criteria (5 minutes) for maximum 	<ul style="list-style-type: none"> Cranberry retrofit for the purpose of reducing washoff time is eligible for systems not previously cost- 				

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						washoff time. <ul style="list-style-type: none"> Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 500 ft of 4 inch pipe = 2000 diam in-ft. 	shared (EQIP 1998-present).
				TW Recovery Conveyance		<ul style="list-style-type: none"> Mainlines to convey water from bogs to TWR pond. Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 500 ft of 4 inch pipe = 2000 diam in-ft. 	
436	Irrigation Reservoir	Ac-Ft	15	Excavated, spread < 300'	CY	<ul style="list-style-type: none"> Costs per cubic yard of excavation. Choose the appropriate method of handling the spoil. Add seeding (342) separately 	<ul style="list-style-type: none"> Excavated ponds only (not embankment ponds - see 378 standard) Must meet all applicable provisions/permit requirements, including US ACOE jurisdiction, National Food Security Act, other federal, state, local regulations, prior to contract obligation.
			Excavated, hauled & spread on-site				
			Excavated, hauled off-site				
441	Irrigation System, Microirrigation	AC	15	Orchards and small fruit, durable laterals	AC	<ul style="list-style-type: none"> Mainlines, submains, filters, valves, manifolds, etc. covered under 430 practice. Separate price for orchards and vegetables to account for crop spacing. 	<ul style="list-style-type: none"> Conversion of irrigation system to improve system efficiency (water conservation). For durable laterals in the field (not disposable tape).
			Vegetables, durable laterals				
			Greenhouse, Microirrigation conversion	<ul style="list-style-type: none"> Priced by acre of irrigated plant area for greenhouse irrigation 			
442	Irrigation System, Sprinkler	AC	15	Center Pivot (CP) or Linear Move (LM)	AC	<ul style="list-style-type: none"> The CP or LM sprinkler system will apply water efficiently and uniformly to maintain adequate soil moisture for optimum plant growth and reduce additional resources concerns such as soil erosion and water quality. A typical scenario assumes the installation of a 900 LF span, including end booms, with low-pressure nozzles, a pivot pad, pivot delivery and assembly, and wire supplies. A filtration system is also assumed as CP or LM systems typically use a surface water supply. . 	
			Cranberry - Replace with Filter	<ul style="list-style-type: none"> A new system is installed on a 5 ac bog. Installation includes removing all components of the existing sprinkler system and installing buried laterals, risers, and pop-up heads meeting current cranberry BMP criteria for CU, DU, SC, application and travel time. 			

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> The scenario assumes about 25 high uniformity pop-up heads per acre which require a sand filter. 	
				Cranberry - Replace without Filter		<ul style="list-style-type: none"> A new system is installed on a 5 ac bog. Installation includes removing all components of the existing sprinkler system and installing burried laterals, risers, and pop-up heads meeting current cranberry BMP criteria for CU, DU, SC, application and travel time. The scenario assumes about 25 high uniformity impact heads per acre which do not require filtration. 	
				Cranberry - Retrofit with Filter		<ul style="list-style-type: none"> The system is retrofitted to change the layout with the replacement of up to 50% of the laterals and risers on a typical bog of 5 acres. Installation includes removing obsolete laterals, risers, and sprinkler heads and installing burried laterals, risers, and pop-up heads meeting current cranberry BMP criteria for CU, DU, SC, application and travel time. The retro-fit assumes about 25 high uniformity pop-up heads per acre which require a sand filter. 	<ul style="list-style-type: none"> Retrofit only eligible for systems not previously cost-shared under EQIP (1998-present).
				Cranberry - Swap Heads		<ul style="list-style-type: none"> Installation assumes 10 acres of cranberry bogs. It involves removing existing sprinkler heads and installing 25 pop-up heads per acre meeting NRCS minimum coefficient of uniformity and other criteria for optimal water distribution. The scenario assumes pop-up heads which require a sand filter. 	<ul style="list-style-type: none"> Swapping heads and retrofitting heads & laterals require that the system meets the minimum criteria in the 442 standard plus minimum criteria for washoff time.
				Solid Set Sprinkler		<ul style="list-style-type: none"> Typical scenario on 5 acres to apply waste/water without exceeding soil or plant uptake rates. Installation of burried laterals, risers, and sprinkler heads, and all necessary appurtenances on a typical sprinkler system 	
				Stationary or Travel Gun		<ul style="list-style-type: none"> A travel gun sprinkler system will be installed to apply wastewater efficiently and uniformly without causing soil erosion, compaction or exceeding nutrient uptake rates. The scenario assumes a travel gun sized to cover 50 acres. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
443	Irrigation System, Surface & Sub-surface	AC	15	Greenhouse Ebb and Flow Benches	SF	<ul style="list-style-type: none"> Part of a closed irrigation system for greenhouses. Includes concrete as needed to level and anchor tables Priced per square feet of crop area Also includes concrete flood floors and flood troughs Price does <u>not</u> include the tailwater recovery system; Tailwater recovery is covered separately under 447. 	<ul style="list-style-type: none"> For closed (zero-runoff) sub-irrigation systems in greenhouses, where all runoff and leachate is collected and reused. Must include tailwater recovery (447).
				Greenhouse Capillary Mats		<ul style="list-style-type: none"> Tailwater recovery not applicable for mats Costs include delivery of water to mats, pressure regulator, filter and timer 	
447	Irrigation Tailwater Recovery	No.	15	Excavated, spread < 300'	CY	<ul style="list-style-type: none"> Generally involves excavation of a new pond, or enlargement of an existing area to store water for reuse. Lift pump – see Pumping plant (533) Pipe to convey water to TW pond - see 430 (TW Recovery Conveyance) 	<ul style="list-style-type: none"> For water quantity and/or water quality benefits. For cranberry pits, payment is for excavation up to the required storage volume for water recovery and re-use; not for hauling material off-site.
				Excavated, hauled & spread on-site			
				Greenhouse Zero Discharge	SF	<ul style="list-style-type: none"> Used in conjunction with Surface and Subsurface Irrigation (443) to recover and reuse irrigation water from ebb and flow benches and floors. Includes recovery tanks, sump, pipe, valves, controllers, pump as needed. Two scenarios for smaller ($\leq 30,000$ sf) and larger systems. Smaller systems typically include a recovery tank per zone. Larger systems typically a centrally located TW recovery for the entire system, and include extra storage tanks and a sediment filter. Priced per square feet of flood benches served by the recovery system. 	
449	Irrigation Water Management	AC	1	IWM	AC	<ul style="list-style-type: none"> Follow an IWMP Install in-ground tensiometers to monitor soil moisture Maintain irrigation records using checkbook method (crop grown, soil moisture conditions prior to irrigation, dates of irrigation (start and stop), inches of water applied, length of the set and inches of rainfall. 	<ul style="list-style-type: none"> Practice approved in 2012 Initiatives: Organic, Energy and High Tunnel.
466	Land Smoothing	AC	10	Cranberry Bog, Land Smoothing	AC	<ul style="list-style-type: none"> Leveling of the bog during bog renovation to reduce water needs for flooding. 	<ul style="list-style-type: none"> One payment per bog

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Flood Damage	AC	<ul style="list-style-type: none"> Flood damaged fields have received deposits of 4" (or less) of silt and sand.. Removing excess deposits of sand and silt from flooding events; smoothing rregularities on the land surface by use of heavy equipment. 	<ul style="list-style-type: none"> Evaluate site for wetlands before planning, document flood damage from a specific storm.
468	Lined Waterway or Outlet	FT	15	Riprap Lined	LF	<ul style="list-style-type: none"> Includes grading and shaping, excavation and fill, delivery and installation of rock riprap, including filter (sand or geotextile), and seeding. For rock riprap required to resist excess velocity, not for stone center waterways installed due to wetness. See Grassed Waterways (412) for stone centered waterways. 	
472	Access Control	AC	10	Standard Navigational Delineation	EA	<ul style="list-style-type: none"> Includes 20" inflatable buoy, lines and anchor 	<ul style="list-style-type: none"> For shellfish grant delineation
				Woodland Boundary Lines	LF	<ul style="list-style-type: none"> Cost includes research, location, and material expenses Must adhere to all pertinent state/federal regulations, especially MA GL #48 Sections 16, 16A Slash Law. 	<ul style="list-style-type: none"> Blaze and paint woodland boundary lines to protect from timber theft and trespass. Must be used in combination with other forest management practices included in FMP (includes non-cost-share items, but excludes FM CAP (106)). Guidelines: Wood, H.P. and R. W. Kulis. <i>Woodland Boundaries</i>. Bulletin L-206,UMass Extension.
490	Tree/Shrub Site Preparation	AC	1	Chemical preparation – (forest or field)	AC	<ul style="list-style-type: none"> Site prep for tree/shrub planting using herbicide to control competing vegetation 	<ul style="list-style-type: none"> Eligible in forest only if landowner has a forest management plan
				Mechanical preparation –field		<ul style="list-style-type: none"> Site prep for tree/shrub planting by disking to control competing vegetation 	
				Mechanical preparation—forest		<ul style="list-style-type: none"> Site prep for tree/shrub planting using skidder to prepare site and control competing vegetation (<5") 	
500	Obstruction Removal	AC	10	Woody Debris Removal	AC	<ul style="list-style-type: none"> Stump removal – may be through grinding or grubbing with dozer. 	<ul style="list-style-type: none"> EQIP application is only for turtle habitat.
				Rock Removal		<ul style="list-style-type: none"> Flood-damaged fields, rocks have been deposited on the fields. Removal of rocks with a bulldozer to the field's edge 	<ul style="list-style-type: none"> Evaluate site for wetlands before planning, document flood damage from a specific storm.

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Sand>4" layer hauled offsite		<ul style="list-style-type: none"> Flood-damaged fields, a sand/silt layer greater than 4: has been deposited on the fields. Removal of the layer and hauling offsite 	<ul style="list-style-type: none"> Evaluate site for wetlands before planning, document flood damage from a specific storm.
				Sand>4" layer pushed to field edge		<ul style="list-style-type: none"> Flood-damaged fields, a sand/silt layer greater than 4: has been deposited on the fields. Removal of the layer to the edge of the field 	<ul style="list-style-type: none"> Evaluate site for wetlands before planning, document flood damage from a specific storm.
512	Forage and Biomass Planting	AC	5	Cool Season	AC	<ul style="list-style-type: none"> Typically installed on a corn field which is being converted to long-term grazing. Field is prepared for seeding, lime and nutrients are spread according to soil test results, and cool season grasses and legumes are established. Pasture is managed for long-term grazing. Erosion is minimized and there is reduced sedimentation and nutrient runoff, and improved water and soil quality (including an increase in organic matter). 	<ul style="list-style-type: none"> Field must have Hay or Pasture land use for 5 year practice life or for the length of the contract, whichever is more. Planned rotation systems must meet soil tolerance criteria per RUSLE2.
				Frost Seed		<ul style="list-style-type: none"> Typically used on hayland previously established as timothy/red clover mix but now has < 5-10% legume composition. Field is limed in the fall and legume seed is broadcast in the spring at snow melt as the soil freezes and thaws. Legume composition is increased above 20% and forage and plant quality is improved due to an increase in species diversity and biological N fixation. 	
				Organic Cool Season		<ul style="list-style-type: none"> Typically installed on an overgrazed pasture that is a weedy mix of cool season grasses. Field is prepared for seeding. Lime, potassium, and manure are spread according to soil test results, and certified organic cool season grasses and legumes are established. Pasture is managed for long-term grazing. Erosion is minimized and there is reduced sedimentation and nutrient runoff, and improved water and soil quality (including an increase in organic matter). 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Organic Frost Seed		<ul style="list-style-type: none"> Typically used on hayland previously established as timothy/red clover mix but now has < 5-10% legume composition. Field is limed in the fall and certified organic legume seed is broadcast in the spring at snow melt as the soil freezes and thaws. Legume composition is increased above 20% and forage and plant quality is improved due to an increase in species diversity and biological N fixation. 	
				Warm Season		<ul style="list-style-type: none"> Typically installed on an overgrazed pasture that is a weedy mix of cool season grasses. Field is prepared for seeding, lime and nutrients are spread according to soil test results, and warm season grasses are established. Weeds are managed during establishment through mowing and chemical control. Pasture is managed for long-term grazing. 	
516	Pipeline	FT	20	Above Ground - 1 inch or less	FT	<ul style="list-style-type: none"> Water is properly supplied to livestock in an efficient manner. Resource concerns regarding soil quality, water quality and livestock forage availability and quality are reduced or eliminated. 1,000 feet of appropriately sized UV rated PE - SiDR 9 or equivalent pipeline is installed along the outside of a pasture fenceline and not buried below the ground surface. Location along the fenceline will provide protection from damage by machinery or grazing livestock, and growing forage along the fenceline provides some protection from UV light. Any section of pipeline which has potential to be crushed by machinery or livestock must be buried. 	
				Above Ground >1 inch, <2 inch			
				Above Ground - 2 inch or more			
				Buried Below Frostline - <=1 inch			
				Buried Below Frostline >1 inch, <2 inch			
				Buried Below Frostline - >=2			
						<ul style="list-style-type: none"> Water is properly supplied to livestock in an efficient manner. Resource concerns regarding soil quality, water quality and livestock forage availability and quality are reduced or eliminated. 1,000 feet of appropriately sized - PE - SiDR 9 or 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				inch		equivalent pipeline is installed in a trench below the anticipated frost line, using a hydraulic excavator, machinery operator, and general labor. 3 frost free hydrants are typically included in a 1,000 foot run.	
				Shallow Buried Pipeline		<ul style="list-style-type: none"> Water is properly supplied to livestock in an efficient manner. Resource concerns regarding soil quality, water quality and livestock forage availability and quality are reduced or eliminated. 1,000 feet of 1" - PE - SiDR 9 or equivalent pipeline is installed along the outside of a pasture fenceline and buried in a shallow trench using a trencher, light equipment operator and general labor. Location along the fenceline will provide protection from damage by machinery or grazing livestock, and placement in the shallow trench provides protection from UV light in order to ensure the pipeline meets the intended lifespan. Any section of pipeline which has potential to be crushed by heavy machinery must be buried in a trench dug below frost line. 	
521A	Pond Sealing or Lining	No.	20	Flexible Membrane Liner, Water	SF	<ul style="list-style-type: none"> To reduce seepage in a pond, for water conservation purposes. Includes liner, geotextile and installation. 	
				Flexible Membrane Liner, Waste		<ul style="list-style-type: none"> For water quality purposes, generally ag-waste related. Includes heavier liner, geotextile and installation. 	
521C	Pond Sealing or Lining	No.	15	Bentonite Treatment	SF	<ul style="list-style-type: none"> To reduce seepage in a pond, for water conservation purposes. Includes bentonite material and installation (not for waste water) 	
528	Prescribed Grazing	AC	1	Basic Rotation	AC	<ul style="list-style-type: none"> Typically used for growing stock and adult, non-lactating stock where animals are moved to new paddocks every 3-7 days according to a grazing management plan. Assumes labor to measure forage biomass and height, adjusting stocking rates, subdivide pastures, keep records, and attend a grazing workshop Forage biomass and grazing height is measured weekly using a grazing stick. Pastures are subdivided using interior or portable fencing, and paddock size is estimated based on rotation length, 	<ul style="list-style-type: none"> At least 75% of livestock forage needs must be obtained (based on forage animal balance). Land mgt. practice (ref. 515.81).

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> biomass, and grazing height. Bare spots and weed pressure is reduced and plant productivity, and forage quantity/quality is improved. Monitoring and record keeping is performed weekly and system is adjusted as needed. 	
				Intensive Rotation		<ul style="list-style-type: none"> Typically used for lactating stock where animals are moved to new paddocks every 1-2 day, or for multi-species grazing according to a grazing management plan. Assumes labor to measure forage biomass and height, adjusting stocking rates, subdivide pastures, keep records, and attend a grazing workshop Animals are rotated daily according to a grazing management plan Forage biomass and grazing height is measured weekly using a grazing stick. Pastures are subdivided using interior or portable fencing, and paddock size is estimated based on rotation length, biomass, and grazing height. Bare spots and weed pressure is reduced and plant productivity, and forage quantity/quality is improved. Monitoring and record keeping is performed weekly and system is adjusted as needed. 	
533	Pumping Plant	No.	15	Subsurface <= 5HP	HP	<ul style="list-style-type: none"> Install submersible pump <= 5HP with 4' dia. x 4' deep pre-cast concrete manhole or well tile, or install surface pump <= 5 HP with 10' x 10' insulated building. This scenario is applicable for either grazing or irrigation systems. <ul style="list-style-type: none"> Grazing system - existing surface waters are impacted by unrestricted access by livestock and inadequate water supply is available for livestock. Irrigation system - existing pump produces inadequate supply of water and is energy inefficient. 	<ul style="list-style-type: none"> Not intended to solely replace an existing pump (considered as maintenance). Irrigation system associated with a new pump must meet the applicable standard. See Watering Facility (614) for Nose Pump
				Subsurface > 5HP		<ul style="list-style-type: none"> Install submersible pump > 5HP with 4' dia. x 4' deep pre-cast concrete manhole or well tile, or install surface pump > 5 HP with 10' x 10' insulated building. This scenario is applicable for either grazing or irrigation systems. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> ○ Grazing system - existing surface waters are impacted by unrestricted access by livestock and inadequate water supply is available for livestock. ○ Irrigation system - existing pump produces inadequate supply of water and is energy inefficient. 	
				Surface Water - Solar	EA	<ul style="list-style-type: none"> ● The typical scenario assumes installation of a solar pump on a stream, river, pond, or lake bank. ● The installation includes the pump, wiring, intake pipe, solar pannels, mounts, inverter, and all appurtenances. ● Grazing - Livestock exclusion from surface water will result in improved surface water quality and reduced erosion. ● Irrigation - energy consumption will be reduced. 	
				Well - Solar		<ul style="list-style-type: none"> ● The typical scenario assumes installation of a solar powered pump in a well. ● The installation includes the pump, wiring, pipeline in the well, solar pannels, mounts, inverter, and all appurtenances. ● Grazing - Livestock exclusion from surface water will result in improved surface water quality and reduced erosion. ● Irrigation - energy consumption will be reduced. 	
				Manure - 8"		<ul style="list-style-type: none"> ● Furnish and install an 8" centrifugal vertical shaft manure pump, PTO, 3 Pt. Hitch, and appurtenances. ● Costs include PTO, Vertical Shaft Pump, and mobilization. ● Contaminated source to surface water and groundwater is removed and pumped to a waste storage or treatment facility. 	
				Manure - 16"		<ul style="list-style-type: none"> ● Install 16" solid piston manure pump to transfer manure from the barn to a waste storage facility. ● Costs include excavation, clean stone, footer drain w/ outlet, concrete foundation, pump and appurtenances, and mobilization. Insulated pump house installed to protect pump and appurtenances from freezing and wet 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> weather. Contaminated source to surface water and groundwater is removed and pumped to a waste storage or treatment facility. 	
				Wastewater <= 5HP		<ul style="list-style-type: none"> Install heavy duty pre-cast concrete pumping tank to capture wastewater from milking house or milking parlor. Wastewater will be pumped from pumping tank by 5 HP solid handling sewage pump capable of pumping a minimum of 2" solids to a waste storage or treatment facility. Contaminated source to surface water and groundwater is removed and pumped to a waste storage or treatment facility. 	
				Cranberry Auto-Start Systems		<ul style="list-style-type: none"> Price based on each system Includes one system with software, up to one repeater radio and solar panel, temperature & soil moisture sensors, 	<ul style="list-style-type: none"> State Air Quality Pool only
558	Roof Runoff Structure	No.	15	Gutters and downspouts	LF	<ul style="list-style-type: none"> Prices per foot of gutter, including installation and PVC cattle guard for downspouts Measure the roof edge distance for the length. The cost includes downspouts (do not add length of downspouts) Refer to Underground Outlet (620) for downspout outlets. 	<ul style="list-style-type: none"> Use 382 for livestock exclusion, as needed, to protect downspouts or french drain.
				Gutters and Drywell		<ul style="list-style-type: none"> Same as gutters and downspouts, but with drywell to serve as an outlet. 	
				French drain	LF	<ul style="list-style-type: none"> Used where gutters not feasible on a building, and where cattle are excluded from the drain. The french drain price includes the perforated tubing within the gravel trench. Refer to Underground Outlet (620) for outlets for french drains. 	
				Dry Well	EA	<ul style="list-style-type: none"> As an outlet to an existing roof runoff system that is causing surface erosion 	
				Recovery Tank	Gallon	<ul style="list-style-type: none"> Used to recover rainwater for irrigation or other uses. Priced per gallon of capacity. 	
560	Access Road	FT	10	Access Road	SF	<ul style="list-style-type: none"> Priced per square foot of road surface. Cost includes excavation, grading and shaping, 	<ul style="list-style-type: none"> New access roads--only for animal waste management

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<p>geotextile, gravel fill for the surface, and culvert to allow flows under the road. 16 ft wide with one 12" culvert per 500 ft of length assumed.</p> <ul style="list-style-type: none"> Does not include subsurface drain (606) and seeding (342). Add these practices separately as needed. 	<p>systems.</p> <ul style="list-style-type: none"> Existing access roads-- erosion control only (any applicable land use).
				Forest Erosion Control	LF	<ul style="list-style-type: none"> Installation of broad based dips, ditching, and outlet protection for the dips to control erosion. 	<ul style="list-style-type: none"> Only on existing forest roads.
561	Heavy Use Protection	AC	10	Asphalt w/o Curb	SF	<ul style="list-style-type: none"> Area stabilized with large asphalt slab. HUA typically is 2000 sf to 4000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Livestock waste and other runoff are directed to waste storage or treatment facility. 	<ul style="list-style-type: none"> Use 313, bedded pack scenario, for multi-use facilities providing combination of waste storage, barnyard area protection and housing. See practice 367 for the roof. See CPM 440-V – 515.91(B) (xi), Ineligible Costs related to buildings.
				Concrete w/ Curb <= 1000 sf		<ul style="list-style-type: none"> Area stabilized with small concrete slab w/ concrete curbing. HUA typically range from 500 sf to 1000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Curbing will provide a barrier to easily divert manure laden runoff to a proper waste storage or treatment facility. Livestock waste and other runoff are directed to waste storage or treatment facility. 	
				Concrete w/ Curb > 1000 sf		<ul style="list-style-type: none"> Area stabilized with large concrete slab w/ concrete curbing. HUA is typically 2000 sf to 4000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Curbing will provide a barrier to easily divert manure laden runoff to a proper waste storage or treatment facility. Livestock waste and other runoff are directed to waste storage or treatment facility. 	
				Concrete w/o Curb <= 1000 sf		<ul style="list-style-type: none"> Area stabilized with small concrete slab. HUA typically 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> range from 500 sf to 1000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Livestock waste and other runoff are directed to waste storage or treatment facility. 	
				Concrete w/o Curb > 1000 sf		<ul style="list-style-type: none"> Area stabilized with large concrete slab. HUA typically is 2000 sf to 4000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Livestock waste and other runoff are directed to waste storage or treatment facility 	
				Curb Only		<ul style="list-style-type: none"> Existing slab will be sawed and 3' area adjacent to slab will be excavated to subgrade. Drainfill and 6" concrete footing will be installed. 8"x24" concrete formed curb will be installed. Curbing will provide a barrier to easily divert manure laden runoff to a proper waste storage or treatment facility. Also used to collect, contain and transfer manure to a proper waste storage location. 	
				Gravel Only		<ul style="list-style-type: none"> Area stabilized with compacted 12" gravel paving underlain with geotextile. HUA typically range from 1000 sf to 5000 sf. Earthfill hauled in from off site to bring areas up to grade for positive drainage. Subgrade is compacted. Livestock waste and other runoff are directed to waste storage or treatment facility. 	
574	Spring Development	No.	20	Well Tile	EA	<ul style="list-style-type: none"> Costs for development of a spring using well tile or spring box, and includes PE tubing collector pipe and plumbing. Refer to Pipeline (516) for the pipe, hydrant, and drain valve; Watering Facility (614) for the trough or tank, and Pumping Plant (533) for pumps. Add seeding (342) separately 	<ul style="list-style-type: none"> Must meet all applicable provisions / permit requirements, including US ACOE jurisdiction, National Food Security Act, other federal, state, local regulations, prior to contract obligation.

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Tile Drain	LF	<ul style="list-style-type: none"> Same as above, but using buried PE tubing to collect seeps and deliver to a watering facility. 	<ul style="list-style-type: none"> Only for grazing systems
575	Animal Trails and Walkways	FT	10	Animal Trails & Walkways	SF	<ul style="list-style-type: none"> Priced per square foot of road surface. Cost includes excavation, grading and shaping, geotextile, gravel fill for the surface, and culvert to allow flows under the road. 12 ft wide with one 12" culvert per 500 ft of length assumed. Does not include subsurface drain (606) and CAP (342). 	
578	Stream Crossing	No.	10	Ford	EA	<ul style="list-style-type: none"> Stream fords priced each, complete, including excavation, fill, geotextile, and armoring. Does not include fence (382) for the cross stream fencing, exclusion fence and gates; and seeding (342). Add these practices separately. 	<ul style="list-style-type: none"> To address erosion and sedimentation resource concerns on existing access roads (any applicable land use). To facilitate restricted animal crossing associated with a prescribed grazing system, while protecting stream and banks; Must meet all applicable provisions / permit requirements, including US ACOE jurisdiction, National Food Security Act, other federal, state, local regulations, prior to contract obligation.
				Culvert, < 24" Culvert, 24" to 36" Culvert, > 36"	SF	<ul style="list-style-type: none"> Priced by the square foot of the travel portion of the crossing, top of bank to top of bank. Generally use in situations where MA Stream Crossing requirements do <u>not</u> apply. 	
				Culvert for Fish Passage	SF	<ul style="list-style-type: none"> Culvert(s) assumed to span the stream width to ensure passage of fish and other wildlife, according to MA Stream Crossing requirements. Priced by the square foot of the travel portion of the crossing, top of bank to top of bank. 	
				Arch Culvert, ≤ 15 ft. Arch Culvert, > 15 ft.	LF	<ul style="list-style-type: none"> Bottomless arch culverts installed to span the stream width to ensure passage of fish and other wildlife, according to MA Stream Crossing requirements. Priced per lineal feet of culvert 	
				Bridge	SF	<ul style="list-style-type: none"> Priced by the square foot of the travel portion of the crossing, top of bank to top of bank. 	
580	Streambank and Shoreline Protection	FT	20	Bioengineering with Rock Toe	LF	<ul style="list-style-type: none"> Installation of streambank protection using a riprap toe with live stakes and/or other bioengineering techniques on the slope above the rock. Includes excavation, geotextile, riprap, wattles, live stakes, seeding and erosion control blanket 	<ul style="list-style-type: none"> Must meet all applicable provisions / permit requirements, including US ACOE jurisdiction, National Food Security Act, other federal, state, local regulations, prior to contract obligation
582	Open Channel	FT	15	By-Pass Channel	LF	<ul style="list-style-type: none"> Priced by the lineal foot. No rock protection required. 	<ul style="list-style-type: none"> Must meet all applicable

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				By-Pass Channel with Rock		<ul style="list-style-type: none"> Refer to Structure for Water Control (587) and Critical Area Planting (342) for associated practices. As above, but with rock protection for excess velocities 	provisions / permit requirements, including US ACOE jurisdiction, National Food Security Act, other federal, state, local regulations, prior to contract obligation.
585	Stripcropping	AC	5	Establishment	AC	<ul style="list-style-type: none"> Layout, installation and maintenance of strips Does not include planting strips – use 328 if a crop rotation is being implemented. 	<ul style="list-style-type: none"> Land management practice Strips must be maintained for the life of the practice (5 years).
587	Structure for Water Control	No.	20	PVC, In-line WCS, ≤ 10" barrel	EA	<ul style="list-style-type: none"> PVC structure with stop logs for water level control (for constructed wetland, for example) 	
				PVC, In-line WCS, > 10" barrel	Diam. In-Ft	<ul style="list-style-type: none"> To convey surface water under a road. Do not add this scenario to Access Roads and Animal Trails since culverts already accounted for. Includes excavation and installation of N-12 or CM Pipe Priced by diameter in- feet for ≤ 30" and > 30" diameter Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 40 ft of 18 inch pipe = 720 diam in-ft. 	
				Culvert, ≤ 30" Diameter			
				Culvert, > 30" Diameter			
Cranberry WCS 20 scenarios based on diameter of barrel and riser, and for extra pipe.	EA	<ul style="list-style-type: none"> Aluminum structures for Cranberry bogs, prices including riser, base plate, and side wings. Includes 20 ft of annular aluminum pipe. Includes installation. Scenarios that include 20 ft of extra pipe (beyond the 20 ft included with the structure), for aluminum or HDPE pipe. 					
590	Nutrient Management	AC	1	Basic Agronomic Crops	AC	<ul style="list-style-type: none"> Used to implement a nutrient management plan for conventional and organic field and forage crops Includes soil and manure tests, and labor for analyzing nutrient results and keeping mandatory records. 	<ul style="list-style-type: none"> Land management practice, (ref. 515.81). Irrigation Water Management (449) must be planned and documented on all irrigated land. Conservation Crop Rotation (328) and Cover Crop (340) must be planned on all organic land.
				Basic Specialty Crops		<ul style="list-style-type: none"> Used to implement a nutrient management plan for conventional and organic vegetable and fruits crops. Includes soil and compost tests, and labor for analyzing nutrient results and keeping mandatory records. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Enhanced Agronomic Crops - A		<ul style="list-style-type: none"> Used to implement an adaptive nutrient management plan for field crops. Includes soil tests, manure tests, and additional labor to collect soil samples, keep mandatory records, and adjust nutrient application rates. Also includes 1 or more of the following adaptive strategies: pre-sidedress nitrate test, corn stalk N test, foliar nutrient testing, chlorophyll testing, nitrogen stabilizers, adapt-N, or variable rate application using precision application technology. 	
				Enhanced Agronomic Crops - B		<ul style="list-style-type: none"> Used to implement an adaptive nutrient management plan for field crops . Includes soil tests, manure tests, and additional labor to collect soil samples, keep mandatory records, and adjust nutrient application rates. Also includes 2 or more of the following adaptive strategies: pre-sidedress nitrate test, corn stalk N test, foliar nutrient testing, chlorophyll testing, nitrogen stabilizers, adapt-N, or variable rate application using precision application technology. 	
				Enhanced Specialty Crops		<ul style="list-style-type: none"> Used to implement an enhanced nutrient management plan for conventional and organic vegetable and fruits crops. Includes soil and compost tests and labor for analyzing nutrient results, keeping mandatory records, and adjusting nutrient application rates. Also includes 1 or more of the following adaptive strategies: pre-sidedress nitrate test, foliar nutrient testing, chlorophyll or petiole sap testing, nitrogen stabilizers, or the use of Adapt-N (for sweet corn). 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Soil Health Assessment	EA	<ul style="list-style-type: none"> Typically installed on small, diversified vegetable farm. Resource concerns include low soil biological activity, soil compaction, nutrient leaching and runoff, poor soil health (including low organic matter), poor plant health, and decreased water quality from excessive nutrient application. Soil is sampled and compaction is measured on different fields of the farm where the planner and client feel soil health is poor or unknown (units are "each" to enable flexibility for planning and sampling). 	
				Seasonal High Tunnel	EA	<ul style="list-style-type: none"> Used to implement a nutrient management plan for conventional and organic vegetable and fruits crops grown in seasonal high tunnels (798). Includes soil and compost tests, and labor for analyzing nutrient results and keeping mandatory records 	
595	Integrated Pest Management	AC	1	Basic Field Crops	AC	<ul style="list-style-type: none"> Used to mitigate the environmental risks of pest management activities where pesticides and other pest suppression risks have not been evaluated and mitigated. Mitigation strategies for pesticides will be implemented based on the WIN-PST hazard rating and the mitigation index scores outlined in Agronomy Technical Note No 5. Also used to mitigate cultural, mechanical, and biological pest suppression risks using appropriate tools. The payment primarily assumes labor for recordkeeping, but also includes labor for using other methods to reduce risk such as cultural techniques to prevent and/or avoid development of pest pressure and establishing "No-spray" zones adjacent to sensitive areas.. 	<ul style="list-style-type: none"> Land management practice, (ref. 515.81) Use the Basic High Value scenario with a 50% payment rate cap for: <ul style="list-style-type: none"> Bivalve aquaculture Greenhouses Old Orchard Removal Use Basic High Value Crop with a 25% payment rate cap for: <ul style="list-style-type: none"> Sanding (\$540 reg.; \$676 HU)
				Basic Fruits			
				Basic Vegetables			
				Basic High Value			
				Advanced Field Crops			
				Advanced Field Crops	<ul style="list-style-type: none"> Used to implement a comprehensive IPM. Includes assessment and mitigation strategies for 	Two separate 595 components may be contract in one year to accommodate cranberry sanding implementation in partial payments.	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Advanced Fruits		chemical, cultural, mechanical, and biological pest suppression risks. <ul style="list-style-type: none"> The advanced scenario involves increased use of prevention, avoidance, and monitoring techniques to reduce the need for pest suppression. The advanced level involves working with Cooperative Extension or a Crop Consultant to integrate an IPM strategy on the farm and typically involves record keeping, monitoring of climate and pest populations, basing sprays on economic thresholds, and using cultural techniques to reduce pest suppression. 	
				Advanced Vegetables			
				Advanced High Value			
				Seasonal High Tunnel	EA		<ul style="list-style-type: none"> Assumes the Basic IPM criteria (above).
600	Terrace	FT	10	Terrace	LF	<ul style="list-style-type: none"> Includes all excavation and earthfill needed to construct the terrace, including seeding. Refer to Underground Outlet (620) for riser and outlet. Refer to Subsurface Drainage (606) if needed. 	
606	Subsurface Drainage	FT	20	PE Tubing, Gravel Envelope	LF	<ul style="list-style-type: none"> Used in association with other practices to provide better suitability for vegetation, or as a cutoff drain for seeps. Price listed is for all sizes (price for 6" assumed), with a gravel trench. Refer to Underground Outlet (620) for tubing and outlet pipe to carry the flow to an outlet. 	<ul style="list-style-type: none"> Eligible only if the practice does not alter the hydrology of an existing wetland Eligible only in association with another practice such as waste storage facility, waterway, terrace, Stripcropping, or otherwise approved on a case by case basis.
				PE Tubing, No Envelope	LF	<ul style="list-style-type: none"> Used in association with other practices to provide better suitability for vegetation Price listed is for all sizes (price for 6" assumed). Refer to Underground Outlet (620) for tubing and outlet pipe to carry the flow to an outlet. 	
				Footing Drains 3 scenarios for Backfill cases		<ul style="list-style-type: none"> Footing drains for behind concrete walls, especially waste storage facilities. Prices based on the backfill soil material, and include PE tubing, sock, crushed stone, and/or filter sand, depending on the backfill case. Payment schedule document contains the standard drawing for 313 backfill to determine the backfill case 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules	
612	Tree/Shrub Establishment	AC	15	Shrubs – Each	EA	<ul style="list-style-type: none"> Price includes plants, equipment and labor 	<ul style="list-style-type: none"> Eligible only to improve wildlife habitat Vegetative practice 	
				200 Shrubs per Acre	AC	<ul style="list-style-type: none"> Price includes plants, equipment and labor 200 shrubs per acre, 2-3ft in 1-gal containers 		
				200 Trees per Acre		<ul style="list-style-type: none"> Price includes plants, equipment and labor 200 trees/shrubs per acre, 2-3 ft in 1-gal containers 		
				Forest Regeneration – conifer planting		<ul style="list-style-type: none"> Price includes plants, equipment and labor 800 trees/acre, 2-0 seedlings, no protectors 		<ul style="list-style-type: none"> Eligible only if landowner has recommendation in a forest management plan
				Forest Regeneration – hardwood planting		<ul style="list-style-type: none"> Price includes plants, equipment and labor 700 trees/acre, 2-0 seedlings, no protectors 		
				Forest Regeneration – direct seeding		<ul style="list-style-type: none"> Price includes seed and labor 4500 white pine seeds/acre (.167lb/ac) 		
614	Watering Facility	EA	20	Frost-free trough	EA	<ul style="list-style-type: none"> Installation of a (1) freeze protected Trough with valve for a typical 30 acre rotational grazing system that provides fresh water to livestock when freezing conditions are expected, as is experienced in New England and necessary where animals will be spending time during the winter out in pastures. This will provide an adequate supply of water to livestock throughout the cold weather. 	Applicable for existing or new grazing systems. Not for barns, HUAs or barnyards.	
				Permanent Storage Tank with trough		<ul style="list-style-type: none"> Installation of a (1) permanent storage tank with trough for distribution of adequate water to implement a rotational grazing system. The setting is a 30 acre pasture where the water supply is not adequate to provide enough water on-demand, so storage is needed so collection can occur when livestock are not drinking. Water is pumped into the permanent tank from a designated water source then delivered by gravity to moveable watering tanks in the pasture. The typical setting is a 30 acre pasture where surface water is being used. A rotational grazing system is being implemented. 		
				Permanent Trough		<ul style="list-style-type: none"> Installation of trough, valve and foundation for permanent watering facility to provide livestock access to daily water requirements and to improve livestock distribution. Installed for utilization by more than one grazing unit. Typically surrounding area must be stabilized to avoid further resource degradation. 		

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> The troughs installed are typically larger than 200 gallons, as they serve multiple paddocks. They may be installed in lanes or areas where several paddocks have access to the same waterer. A suitable area surrounding the waterer will have to be stabilized with gravel, or in some cases, concrete, depending on the situation, using Heavy Use Area. The result is that livestock access to fresh water with no degradation to soil and water resources. 	
				Portable Trough		<ul style="list-style-type: none"> Installation of portable trough (s), quick-couple valve for movable watering facility used in a rotational grazing system to meet daily water requirements and improve Livestock distribution. The typical setting is a field or fields approximately 30 acres in size where a rotational grazing system is being implemented. Average number of troughs is 3 per 30 acre grazing system. 	
				Nose Pump		<ul style="list-style-type: none"> Installation of nose pump with all fittings to provide livestock access to surface water where feasible. The use of a nose pump for delivering surface water to livestock keeps the livestock out of the water body and provides clean fresh water in adequate quantities. It also assists with proper animal distribution. The typical setting is a 30 acre pasture where surface water is being used. A rotational grazing system is being implemented. 	
620	Underground Outlet	FT	20	4" to 10" with outlet pipe	Diam. In-Ft	<ul style="list-style-type: none"> For outlets of roof runoff and subsurface drains, where no riser is required. Includes PE tubing, outlet pipe, and animal guard. Diam In-Ft = nominal pipe diameter (inches) x pipe length (feet). Example: 200 ft of 4 inch pipe = 800 diam in-ft. 	
				Surface Drain - riser, pipe, & outlet	LF	<ul style="list-style-type: none"> For outlets to terraces, WASCOB, and for surface drainage where a riser is needed. See 634 for riser and outlet for agwaste related applications. Includes riser assembly (plastic or metal pipe), non- 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Surface Drain – catch basin, < 12” pipe		<ul style="list-style-type: none"> perforated PE tubing, PVC or CMP outlet pipe, and flap-type animal guard. For surface drainage. Includes catch basin, non-perforated PE tubing, PVC outlet pipe, and flap-type animal guard. See 410 practice for grade control structures that prevent gully erosion. 	
				Surface Drain – catch basin, 12” to 24” pipe		<ul style="list-style-type: none"> For surface drainage. Includes catch basin, and N-12 pipe. No outlet pipe is generally needed. See 410 practice for grade control structures that prevent gully erosion. 	
				Surface Drain – catch basin, > 24” pipe		<ul style="list-style-type: none"> For surface drainage. Includes catch basin and N-12 pipe. No outlet pipe is generally needed. See 410 practice for grade control structures that prevent gully erosion. 	
629	Waste Treatment	No	10	Bark Bed	SF	<ul style="list-style-type: none"> For treatment of milkroom wastewater 	<ul style="list-style-type: none"> May use only under the conditions of the MOA between DAR and DEP.
				Mounded Bed		<ul style="list-style-type: none"> Mounded bed used for treatment of milkroom wastewater when shallow to bedrock or water table 	
633	Waste Utilization	AC	1	Spreading on New Land	AC	<ul style="list-style-type: none"> Assumes manure (liquid or solid) is hauled to satellite fields that have not regularly received manure 	<ul style="list-style-type: none"> Land management practice, (ref. 515.81).
634	Waste Transfer	No.	15	Manure to Storage by Gravity	EA	<ul style="list-style-type: none"> To transfer manure from barn to storage Includes concrete hopper, 30” transfer pipe, and safety grating 	<ul style="list-style-type: none"> See Pumping Plant (533) for manure pumps to support waste transfer system.
				Manure to Storage, Pushoff		<ul style="list-style-type: none"> Cantilever pushoff ramp from barn or HUA into a waste storage facility, with safety bar Uses Std drawing from Wisconsin (Dwg 590) 	
				Manure to Storage, Pumped		<ul style="list-style-type: none"> Includes a reception pit and manure pump to transfer manure to a storage facility. Assumes a 1200 cf cast-in-place reception pit, pump and 6” PVC gasketed pipe 	
				Wastewater to Storage by Gravity	LF	<ul style="list-style-type: none"> To transfer liquid wastewater to storage facility by gravity. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> Includes PVC gasketed pipe (6" assumed), plumber's trap, and cleanouts at 200 ft intervals. 	
				Storage to Utilization, Pumped	EA	<ul style="list-style-type: none"> Manure pump to empty storage facilities to a spreader for utilization. Assumes PTO driven pump, either vertical pump on 3-point hitch, or lagoon style for ramps 	<ul style="list-style-type: none"> For new waste storage facilities only
				Wastewater to Storage or Treatment, Pumped		<ul style="list-style-type: none"> To transfer wastewater to a storage facility, or to a treatment facility where no pre-treatment is needed (from a sediment basin to a treatment strip) Assumes a 1000 gallon pump tank, 3" sewage pump, and 2" PE pipe. 	
				Wastewater from Sediment Basin, Gravity, no dosing	LF	<ul style="list-style-type: none"> To transfer wastewater from a sediment basin by gravity without a dosing system (highly diluted silage runoff, for instance), to a VTA. Includes a riser assembly or collection box, and 6" PVC gasketed pipe See Sediment Basin (350) for concrete basin & screenbox. 	
				Wastewater to Treatment, Gravity, Pre-treated and Dosed	EA	<ul style="list-style-type: none"> To transfer wastewater (milkhouse waste, for example) to a VTA, with pretreatment using septic tank and grease trap, and dosed using a FLOUT or similar gravity method. Includes three 1500 gallon tanks (septic, grease, pump tanks), 6" PVC pipe between tanks, a FLOUT, and 4" PVC to VTA Level lip or manifold included with Vegetated Treatment Area (635) 	
				Wastewater to Treatment, Pumped, Pre-treated and Dosed		<ul style="list-style-type: none"> To transfer wastewater (milkhouse waste, for example) to a VTA, with pretreatment using septic tank and grease trap, and dosed with a pump. Includes three 1500 gallon tanks (septic, grease, pump tanks), 6" PVC pipe between tanks, a 2" sewage pump, and 4" PVC to VTA Level lip or manifold included with Vegetated Treatment Area (635) 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Silage Runoff Control		<ul style="list-style-type: none"> Installation of a silage runoff system to direct concentrated leachate to a tank or storage facility and allow diluted runoff to divert to a treatment area. Includes some curbing, concrete sediment basin, screen, trickle pipe and overflow weir. Includes up to 50 ft of gravity pipe to storage. Treated storage tank also included. Does not include the pump (see 634) 	
635	Vegetated Treatment Area	AC	10	Vegetated Treatment Area (VTA) without distribution system	SF	<ul style="list-style-type: none"> A VTA where a level lip or manifold are not required (a small composting facility, for instance). Includes grading and shaping, topsoiling, and seeding. 	<ul style="list-style-type: none"> For milkhouse milk wastewater, use only under the conditions of the MOA between DAR and DEP. The MOA does not allow use of a VTA for winter treatment of MHW.
				VTA with gravel trench distribution		<ul style="list-style-type: none"> For a compost area using gravel trench to distribute flow. One gravel trench assumed per 100 ft of flow length. Includes grading, shaping, topsoiling, gravel trench and seeding. 	
				Barnyard VTA with Slotted Curb		<ul style="list-style-type: none"> A VTA for a small barnyard, where a concrete slotted curb can be used. Includes strip construction, seeding, and a concrete slotted curb with a gravel splash pad 	
				VTA with Perforated Pipe Manifold		<ul style="list-style-type: none"> A VTA where a perforated pipe manifold is used to distribute flow to the strip. Normally used when pressure dosing of the wastewater is needed. Includes strip construction, seeding, and the perforated pipe manifold system (posts, pipe, hangers, etc). Refer to Waste Transfer (634) for the costs of the pretreatment and dosing components. 	
				VTA with Perforated Pipe Manifold, Replace Soil		<ul style="list-style-type: none"> Same as previous, except includes removing and replacing unsuitable soil within the VTA (percs too rapidly or slowly). 	
638	Water & Sediment Control Basin	No.	10	Water & Sediment Control Basin	LF	<ul style="list-style-type: none"> Includes all excavation and earthfill needed to construct the WASCOD, including seeding. Refer to Underground Outlet (620) for riser and outlet. Refer to Subsurface Drainage (606) if needed. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
642	Water Well	No.	20	Well, All types	EA	<ul style="list-style-type: none"> One cost for all types of well 	<ul style="list-style-type: none"> Only for Livestock Watering To facilitate animal distribution for prescribed grazing Not for barnyard water.
				Well yield test		<ul style="list-style-type: none"> One price for well yield test, authorized for new or existing wells to determine design yield and drawdown for irrigation or livestock wells. Use this only when the estimated yield is not sufficient to complete the design of the system. 	
643	Restoration /Management of Rare or Declining Habitats	AC	1	Scattered Tree Cutting	AC	<ul style="list-style-type: none"> Creation or maintenance of shrubland for wildlife by selectively removing all tall growing tree species from a regenerating shrubland 	<ul style="list-style-type: none"> Eligible only if landowner has a forest management plan
				Restore old growth forest characteristics		<ul style="list-style-type: none"> Includes forester marking legacy trees, labor to create 8 snags/ac and to fell 4 trees/ac for coarse woody debris 	
				Silvicultural Patch Cut		<ul style="list-style-type: none"> Typical setting is hardwood or mixed wood forest varying in size. Silvicultural cuts will remove the overstory and stimulate regeneration of desired species to improve plant productivity, health and vigor and wildlife food and cover. This activity will promote regeneration of desired shade intolerant and intermediate shade tolerant plant species while removing undesirable growing stock as prescribed in a forest management plan. This prescription involves removal of nearly all the trees in the stand in typically a 2 acre cut but may range from 1-5 acres. Large, >2 acre cuts where all stems are removed will also benefit declining early successional wildlife. 	
				Stand Thinning - Chemical		<ul style="list-style-type: none"> Chemical release or thinning of a forest stand using herbicide applied as foliar spray or basal bark application. The intent is to regulate the growth and improve the species composition and wildlife habitat of the stand as prescribed in a forest management plan. 	
				Light-Moderate Stand Thinning		<ul style="list-style-type: none"> Forest stands will be thinned according to a silvicultural prescription in a forest management plan to reduce basal area through removal of unacceptable growing stock to improve the forest stand. Basal area reduction will be less than 40% and may be 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
						<ul style="list-style-type: none"> variable across the stand and may include various treatments including but not limited to area-wide thinning, single tree selection, small groups, etc. Wildlife habitat will be maintained through retention of important habitat elements such as large woody debris and snags. Typical size will be 5 acres. 	
				Heavy Stand Thinning		<ul style="list-style-type: none"> Forest stands will be thinned according to a silvicultural prescription in a forest management plan to reduce basal area through removal of unacceptable growing stock to improve the forest stand. Basal area reduction will be 40% or greater and may be variable across the stand and may include various treatments including but not limited to area-wide thinning, small groups, shelterwood, etc. Wildlife habitat will be maintained through retention of important habitat elements such as large woody debris, snags and retention trees. Typical size will be 5 acres. 	
				Woody Clearing—No timber		<ul style="list-style-type: none"> Creation of early successional habitat for wildlife by removing at least 350 stems / acre and the treatment of slash No commercial value in the timber removed 	
644	Wetland Wildlife Habitat Management	AC	1	Turtle nesting habitat creation	AC	<ul style="list-style-type: none"> The creation of turtle nesting habitat through a combination of the following activities: clearing vegetation, stripping loam, scarifying the soil, importing washed sandy/gravel soils. 	<ul style="list-style-type: none"> Land management practice, (ref. 515.81). Minimum patch size must be 20'x20'
645	Upland Wildlife Habitat Management	AC	1	Apple Tree Release	AC	<ul style="list-style-type: none"> Typical scenario for this practice is apple tree release on 1 acre of land that is either forested, forest field edge or within an old field setting. Apple trees are being overtopped by trees competing for growing space and nutrients. Release is generally to a greater extent (larger area and more trees removed) than for hard or soft mast trees in a forest due to the shorter growth form of the tree. Remove all trees above and focus on removal of trees to the East, 	<ul style="list-style-type: none"> Land management practice, (ref. 515.81).

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Brush Piles		<p>South and West (for sun exposure).</p> <ul style="list-style-type: none"> • Typical scenario is hardwood and mixed wood forest stands and open areas (for brush piles) where wildlife cover is limited. • Brush piles are created from trees on site and will be constructed by piling brush and loose branches on top of a base frame comprised of large logs. • Typical setting is 3 acres. Size is minimum 12-18 feet wide by 6 feet high. 	<ul style="list-style-type: none"> • May not be used on same land where woody clearing and/or slash treatment is cost shared by EQIP.
				Mowing/Light Brush Hog		<ul style="list-style-type: none"> • Grass dominated fields will be mowed in a manner that will improve habitat for wildlife through a change in timing (e.g. delayed mowing after breeding season) or the pattern (rotational or other) of management that it is currently used. • Typical size for this management is 10 acres. In some cases the field may be mowed on a rotational basis to maintain cover and food (flowers for pollinators) late into the season. Typical equipment is mower but could also be a brush hog. • Mowing will take place after the primary breeding season to allow for successful nesting and brood rearing for target wildlife. The vegetation is managed in a fashion that will improve food and cover for wildlife. 	
				Snag Creation		<ul style="list-style-type: none"> • Typical scenario is hardwood and mixed wood forest stands of various sizes where snag trees are rare. • Poor quality or deformed trees, such as those with broken tops or large branches, will be chosen for snags when available. • 8 snags per acre are created by double-girdling the selected trees in the stand. 	
647	Early Successional Habitat Development / Management	AC	1	Herbaceous management	AC	<ul style="list-style-type: none"> • Site is managed for early successional wildlife species • Scenario includes mowing or strip disking 	<ul style="list-style-type: none"> • Cost share allowed every other year only
				Liming		<ul style="list-style-type: none"> • Site is managed for early successional wildlife species 	<ul style="list-style-type: none"> • Multiple treatments allowed if supported by soil test

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Hedgerow Cutting		<ul style="list-style-type: none"> Cost includes laborer with chainsaw and chipper 	<ul style="list-style-type: none"> to create a continuous expanse of grassland for wildlife
655	Forest Trails and Landings	LF	5	Forest – Bridge	LF	<ul style="list-style-type: none"> Cost of wooden bridge, forwarder and labor to install temporary bridge 	<ul style="list-style-type: none"> For temporary skid trails only. Stream crossings must be removed within reasonable period after harvest is completed.
				Forest – Culvert		<ul style="list-style-type: none"> Cost of culvert, excavator and operator to install temporary culvert 	
				Forest – Erosion Control		<ul style="list-style-type: none"> Same as access road erosion control, except for skid trails 	
660	Tree/Shrub Pruning	AC	10	Tree Pruning	LF	<ul style="list-style-type: none"> Payment unit is linear feet of bole Trees 3-8" in diameter will be pruned 17' high. 	<ul style="list-style-type: none"> Eligible only if landowner has a forest management or stewardship plan that prescribes pruning
666	Forest Stand Improvement	AC	10	Crop/Mast Tree Release	AC	<ul style="list-style-type: none"> Crop or wildlife mast trees will be released from competition through a crown release. Typical situation is to release on 3-4 sides. Unacceptable growing stock will be culled through this process focusing growth on crop or mast trees increasing growth, health and mast production. Crop tree release for timber must be specified in a forest management plan. Wildlife habitat will be maintained through retention of important habitat elements such as large woody debris and snags. 	<ul style="list-style-type: none"> Eligible only if landowner has a forest management or stewardship plan that prescribes thinning Eligible only if landowner has a forest management plan or stewardship plan that prescribes thinning.
				Heavy Stand Thinning		<ul style="list-style-type: none"> Forest stands will be thinned according to a silvicultural prescription in a forest management plan to reduce basal area through removal of unacceptable growing stock to improve the forest stand. Basal area reduction will be 40% or greater and may be variable across the stand and may include various treatments including but not limited to area-wide thinning, small groups, shelterwood, etc. Wildlife habitat will be maintained through retention of important habitat elements such as large woody debris, snags and retention trees. Typical size will be 5 acres. 	

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
				Light-Moderate Stand Thinning		<ul style="list-style-type: none"> Forest stands will be thinned according to a silvicultural prescription in a forest management plan to reduce basal area through removal of unacceptable growing stock to improve the forest stand. Basal area reduction will be less than 40% and may be variable across the stand and may include various treatments including but not limited to area-wide thinning, single tree selection, small groups, etc. Wildlife habitat will be maintained through retention of important habitat elements such as large woody debris and snags. Typical size will be 5 acres. 	<ul style="list-style-type: none"> Payment for thinning between 250 and 500 stems/acre. The stems to be thinned are <8" DBH for hardwoods and <10" for conifers, and have no commercial value. May be done in conjunction with a commercial timber harvest that removes stems >8" DBH Eligible only if landowner has a forest management plan or stewardship plan that prescribes thinning.
				Silvicultural Patch Cut		<ul style="list-style-type: none"> Typical setting is hardwood or mixed wood forest varying in size. Silvicultural cuts will remove the overstory and stimulate regeneration of desired species to improve plant productivity, health and vigor and wildlife food and cover. This activity will promote regeneration of desired shade intolerant and intermediate shade tolerant plant species while removing undesirable growing stock as prescribed in a forest management plan. This prescription involves removal of nearly all the trees in the stand in typically a 2 acre cut but may range from 1-5 acres. Large, >2 acre cuts where all stems are removed will also benefit declining early successional wildlife. 	Eligible only if landowner has a forest management plan or stewardship plan that prescribes this.
				Stand Thinning - Chemical		<ul style="list-style-type: none"> Chemical release or thinning of a forest stand using herbicide applied as foliar spray or basal bark application. The intent is to regulate the growth and improve the species composition and wildlife habitat of the stand as prescribed in a forest management plan. 	<ul style="list-style-type: none"> Eligible only if landowner has a forest management plan or stewardship plan that prescribes thinning.

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
798	Seasonal High Tunnel for Crops	SF	4	High Tunnel	SF	<ul style="list-style-type: none"> • Heating and ventilation is allowed but not cost-shared. • Installation must comply with manufacturer specifications. • All runoff and snow loads must be properly managed for the lifespan of the practice. 	<ul style="list-style-type: none"> • Financial assistance is limited to 5% of one acre (2,178 SF) • Landowner report forms must be submitted annually (included with jobsheet).