

## Grassland Reserve Program Conservation Practice Guide Notes

### Massachusetts 2011

Practice Code	Practice Name	Practice Unit	Lifespan (years)	Scenario	Payment Unit	Scenario Notes	State Program Rules
314	Brush Management	AC	1	Mowing, Brush-hogging	AC	<ul style="list-style-type: none"> <li>Cost per acre for mowing pasture with a rotary mower to reduce encroachment of woody species and brush.</li> </ul>	<ul style="list-style-type: none"> <li>Practice eligible on all lands except active cropland.</li> <li>Land management practice payment (ref. 515.81).</li> </ul>
				Light clearing – heavy brush		<ul style="list-style-type: none"> <li>Cost per acre for controlling heavier brush (1-2" diameter) with a Davco mower, chain saw and hand tools</li> </ul>	
				Invasive Plant Control – Intensive Mechanical and Chemical Control		<ul style="list-style-type: none"> <li>Cost per acre for cutting woody invasive plants with chainsaws/brushcutters AND treating the cut stumps with a systemic herbicide.</li> </ul>	
315	Herbaceous Weed Control	AC	1	Chemical Control of Bedstraw/Perennial Weeds	AC	<ul style="list-style-type: none"> <li>Cost per acre for chemical treatment of bedstraw or other hard-to-kill perennial weeds.</li> <li>Weed seed production must be eliminated with mowing</li> <li>Practice should be scheduled for two consecutive years.</li> <li>Pasture and Hayland Planting (512) may be scheduled if cover is reduced to &lt;75%.</li> </ul>	<ul style="list-style-type: none"> <li>Practice eligible on all lands except active cropland.</li> <li>Land management practice payment (ref. 515.81).</li> </ul>
327	Conservation Cover	AC	3	Establish Cool Season Grasses For Wildlife	AC	<ul style="list-style-type: none"> <li>Cost includes seed bed prep, soil amendments and application, seed and seeding.</li> </ul>	<ul style="list-style-type: none"> <li>Vegetative practice rule (ref. 515.81).</li> <li>For land use conversion to wildlife.</li> </ul>
				Establish Warm Season Grasses For Wildlife			
				No-Till Overseeding of Cool Season Grasses for wildlife		<ul style="list-style-type: none"> <li>Cost includes soil amendments and application, rental of no-till seeder, seed and seeding.</li> </ul>	
				No-Till Overseeding of Warm Season Grasses for wildlife			
342	Critical Area Planting	AC	10	Disturbed Areas	AC	<ul style="list-style-type: none"> <li>For construction sites, disturbed areas, or steep eroding banks.</li> <li>Small bulldozer used to prepare site and track seed.</li> <li>Includes material and hand labor for lime, fertilizer, seed and mulch.</li> <li>Seeding Mix #4 - Specification Guide (warm/cool season grass mix).</li> </ul>	<ul style="list-style-type: none"> <li>Vegetative practice (ref. 515.81).</li> </ul>

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				Manual Herbaceous Seeding	AC	<ul style="list-style-type: none"> <li>Steep eroding bank where conventional equipment cannot be used.</li> <li>Hand tools and labor to prepare site, lime, fertilize, seed and mulch.</li> <li>Attractive, low-maintenance herbaceous seeding mixture (Mix #10).</li> </ul>	
382	Fence	LF	20	Barbed Wire	LF	<ul style="list-style-type: none"> <li>Cost assumes 4 strand barbed wire fence and includes all materials and labor including, but not limited to, corners, brace assemblies, posts at 16' spacing and all wire.</li> <li>Gates are included in the cost.</li> </ul>	<ul style="list-style-type: none"> <li>Permanent Fences Only.</li> <li>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.</li> <li>Permanent fence is eligible when used in conjunction with a prescribed grazing system, or when excluding animals from water resources, or for protecting practices or safety in association with a practice.</li> <li>Boundary or property line fences are ineligible, except as an integral part of a conservation management system.</li> <li>Ref. 515.91(B) Ineligible Costs.</li> </ul>
				Woven Wire	LF	<ul style="list-style-type: none"> <li>Cost includes 48" woven wire with one strand of barbed wire on the top and includes all materials and labor including, but not limited to, corners, brace assemblies, posts at 16' spacing and all wire.</li> <li>Gates are included in the cost.</li> <li>Fence charger is included in the cost.</li> </ul>	
				High Tensile Electric	LF	<ul style="list-style-type: none"> <li>Cost includes 5 strand high tensile fence and all materials and labor to install, including, but not limited to, corners, brace assemblies, posts at approximately 35 ft. spacing and all wire.</li> <li>Gates are included in the cost.</li> <li>Fence charger is included in the cost.</li> </ul>	
				High Tensile Non-electric	LF	<ul style="list-style-type: none"> <li>Cost includes 6 strands high tensile fence and all materials and labor to install, including, but not limited to, corners, brace assemblies, posts at approximately 35 ft. spacing and all wire.</li> <li>Gates are included in the cost.</li> </ul>	
391	Riparian Forest Buffer	AC	15	Zones 1 and 2	AC	<ul style="list-style-type: none"> <li>Located adjacent to and up-gradient from watercourses or water bodies.</li> <li>Planted to trees and shrubs at a density of 200 plants per acre.</li> <li>Trees have protectors.</li> </ul>	<ul style="list-style-type: none"> <li>Minimum widths of zones must meet standard.</li> </ul>
460	Land Clearing	AC	10	Cut & Chip trees	AC	<ul style="list-style-type: none"> <li>Site preparation of a field with chainsaw operators to cut and chip trees (&lt;8" and assumes no timber value) for</li> </ul>	<ul style="list-style-type: none"> <li>For pasture land use only.</li> </ul>

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						pasture and hayland planting.		
				Brontosaurus		<ul style="list-style-type: none"> <li>Site preparation of a field using a brontosaurus to cut trees and loader to remove chips and slash.</li> </ul>	<ul style="list-style-type: none"> <li>Fields to be cleared must be <math>\leq 5</math> acres to comply with NEPA.</li> </ul>	
500	Obstruction Removal	AC	10	Stump removal	AC	<ul style="list-style-type: none"> <li>Stump removal – may be through grinding or grubbing with dozer.</li> </ul>	<ul style="list-style-type: none"> <li>Eligible if required to achieve conservation objective.</li> </ul>	
512	Pasture and Hayland Planting	AC	5	Convert Continuous Crops to Permanent Cool Season Grass/legumes	AC	<ul style="list-style-type: none"> <li>Assumes that crop land is being converted to pasture.</li> </ul>	<ul style="list-style-type: none"> <li>Vegetative practice (ref. 515.81).</li> </ul>	
				Reseed Bedstraw Infested Pastures		<ul style="list-style-type: none"> <li>Assumes fields are treated with Herbaceous Weed Control (315) prior to reseeding.</li> </ul>		
				Establish Warm Season Grasses		<ul style="list-style-type: none"> <li>Assumes that cropland is being converted to hay or pasture; includes forgone income from crop rotation and long period of establishment.</li> <li>Conventional establishment of warm season grasses, forbs and legumes.</li> </ul>		
				No-Till Establishment of Warm Season Grasses		<ul style="list-style-type: none"> <li>Assumes that cropland is being converted to hay or pasture; includes forgone income from crop rotation and long period of establishment.</li> </ul>		
				No-Till Renovation of Cool season Pasture or Hayland		<ul style="list-style-type: none"> <li>Assumes custom rates.</li> </ul>		<ul style="list-style-type: none"> <li>Vegetative practice (ref. 515.81).</li> <li>For no-till or conventional pasture renovation.</li> </ul>
				Frost Seeding for Pasture Rejuvenation		<ul style="list-style-type: none"> <li>Rates for frost seeding legumes and timothy are located in the Pasture and Hayland Planting (512) Specification Guide.</li> </ul>		<ul style="list-style-type: none"> <li>Vegetative practice (ref. 515.81).</li> <li>Field must be in a prescribed grazing system.</li> </ul>
516	Pipeline	FT	20	Pipeline, Buried	LF	<ul style="list-style-type: none"> <li>Includes pipe, hydrants, air valves, drain valve.</li> <li>Refer to other practices for components making up a complete livestock watering system: spring development (574), watering facility (614), pumping plant (533).</li> </ul>	<ul style="list-style-type: none"> <li>For livestock watering only.</li> </ul>	
				Pipeline, Above Ground	LF	<ul style="list-style-type: none"> <li>Includes pipe only (material and installation) for situations where the pipe cannot be buried or to maintain flexibility with prescribed grazing plan.</li> </ul>		
528	Prescribed Grazing	AC	3	Implementation	AC	<ul style="list-style-type: none"> <li>At least 75% of livestock forage needs must be obtained (based on forage animal balance).</li> </ul>	<ul style="list-style-type: none"> <li>Land mgt. practice (ref. 515.81).</li> </ul>	

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533	Pumping Plant	No.	15	Centrifugal Pump & Motor	HP	<ul style="list-style-type: none"> <li>Centrifugal pumping plants for irrigation (irrigation or livestock watering) priced by the pump horsepower (HP). Refer to Waste Transfer (634) for manure and wastewater pumps.</li> <li>Two price ranges for <math>\leq 5</math> hp and <math>&gt; 5</math>hp.</li> </ul>	<ul style="list-style-type: none"> <li>Not intended to solely replace an existing pump (considered as maintenance).</li> </ul>
				Submersible Pump	HP	<ul style="list-style-type: none"> <li>Submersible pumps for wells, including motor, priced by HP as above.</li> <li>Two price ranges for <math>\leq 3</math> hp and <math>&gt; 3</math> hp.</li> </ul>	
				Livestock Solar Pump	EA	<ul style="list-style-type: none"> <li>Solar or Wind pumping plants for livestock watering priced for each complete system.</li> </ul>	
				Pump and Tank, for gravity feed systems	EA	<ul style="list-style-type: none"> <li>Used to pump water to a holding tank or pressure tank to provide water for livestock watering. Includes cost of pump and tank.</li> </ul>	
574	Spring Development	No.	20	Well Tile	EA	<ul style="list-style-type: none"> <li>Costs for the development of a spring using well tile or spring box, and includes PE tubing collector pipe and plumbing.</li> <li>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.</li> <li>Add seeding (342) separately.</li> </ul>	<ul style="list-style-type: none"> <li>Must meet all applicable provisions and permit requirements, including US Army Corp of Engineers jurisdiction, National Food Security Act and any other federal, state and local regulations, prior to contract obligation.</li> <li>Only for grazing systems.</li> </ul>
				Tile Drain	LF	<ul style="list-style-type: none"> <li>Same as above, but using buried PE tubing to collect seeps and deliver to a watering facility.</li> </ul>	
575	Animal Trails and Walkways	FT	10	Animal Trails & Walkways	SF	<ul style="list-style-type: none"> <li>Priced per square foot of road surface.</li> <li>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.</li> <li>Does not include subsurface drain (606) and seeding (342).</li> </ul>	
578	Stream Crossing	No.	10	Ford	EA	<ul style="list-style-type: none"> <li>Stream fords priced each, complete, including excavation, fill, geotextile, and armoring.</li> <li>Does not include fence (382) for the cross stream fencing, exclusion fence and gates; and seeding (342). Add these practices separately.</li> </ul>	<ul style="list-style-type: none"> <li>Only to facilitate restricted animal crossing while protecting stream and banks; not for forestry roads;</li> <li>Must be associated with a prescribed grazing system;</li> </ul>

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				Culvert, < 24" Culvert, 24" to 36" Culvert, > 36"	SF	<ul style="list-style-type: none"> <li>• Priced by the square foot of the travel portion of the crossing, top of bank to top of bank.</li> <li>• Generally use in situations where MA Stream Crossing requirements do <u>not</u> apply.</li> </ul>	<ul style="list-style-type: none"> <li>• Must meet all applicable provisions and permit requirements, including US Army Corp of Engineers jurisdiction, National Food Security Act and any other federal, state and local regulations, prior to contract obligation.</li> </ul>
			Arch Culvert, ≤ 15 ft. Arch Culvert, > 15 ft.	LF	<ul style="list-style-type: none"> <li>• Bottomless arch culverts installed to span the stream width to ensure passage of fish and other wildlife, according to MA Stream Crossing requirements.</li> </ul>		
			Bridge	SF	<ul style="list-style-type: none"> <li>• Priced by the square foot of the travel portion of the crossing, top of bank to top of bank.</li> </ul>		
580	Streambank and Shoreline Protection	FT	20	Bioengineering with Rock Toe	LF	<ul style="list-style-type: none"> <li>• Installation of streambank protection using a riprap toe with live stakes and/or other bioengineering techniques on the slope above the rock.</li> <li>• Includes excavation, geotextile, riprap, wattles, live stakes, seeding and erosion control blanket.</li> </ul>	<ul style="list-style-type: none"> <li>• Must meet all applicable provisions and permit requirements, including US Army Corp of Engineers jurisdiction, National Food Security Act and any other federal, state and local regulations, prior to contract obligation.</li> </ul>
614	Watering Facility	EA	20	Tank, Permanent with foundation	EA	<ul style="list-style-type: none"> <li>• Prices for permanent facilities, installed. See pipeline, spring development, and pumping plant for associated practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Eligible only as part of a prescribed grazing system.</li> </ul>
			Tank, Moveable	EA	<ul style="list-style-type: none"> <li>• Prices for moveable tank and all components, installed. See pipeline, spring development, and pumping plant for associated practices.</li> </ul>		
			Tank, Frost free	EA	<ul style="list-style-type: none"> <li>• For a freeze protected tank, including valve. See pipeline, spring development, and pumping plant for associated practices.</li> </ul>		
			Waterer with Nose Pump	EA	<ul style="list-style-type: none"> <li>• Prices for installed nose pump system. See pipeline, spring development, and pumping plant for associated practices.</li> </ul>		
642	Water Well	No.	20	Well, All types	EA	<ul style="list-style-type: none"> <li>• One cost for all types of well.</li> </ul>	<ul style="list-style-type: none"> <li>• Only for Livestock Watering.</li> <li>• To facilitate animal distribution for prescribed grazing.</li> <li>• Not for barnyard water.</li> </ul>
			Well yield test	EA	<ul style="list-style-type: none"> <li>• One price for well yield test, authorized for new or existing wells to determine design yield and drawdown for irrigation or livestock wells.</li> </ul>		

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						<ul style="list-style-type: none"> <li>Use this only when the estimated yield is not sufficient to complete the design of the system.</li> </ul>	