

## 2010 Conservation Stewardship Program Enhancement List

2010 Ranking Period 2

Code	Eligible Land Use				Enhancement Name	Soil Erosion Concerns				Soil Quality Functions				Water Quantity Concerns			Water Quality Concerns					Air Quality Concerns				Plants		Animal Concerns				Energy Concerns			
						sheet, rill, wind, irrigation,	ephemeral, gully	streambank, shoreline*	road banks, construction sites*	organic matter depletion (habitat, compaction, water partitioning)	OM oxidation	salinity, other contaminants	nutrient cycling	compaction	excess water	insufficient water	inefficient use of irrigation water	sediment	nutrients	pesticides	pathogens	salinity	airborne soil particulates (PM)	greenhouse and ozone gases	chemical spray drift*	odors	quantity, diversity, health, vigor	declining populations-T&E species	Domestic Livestock-cover, food, and water	Terrestrial Wildlife-cover, food, connectivity, and water	Aquatic Wildlife-structure, food, water temperature	Declining populations-T&E species	energy conservation		
AIR03	Crop				Replace burning of prunings, removals and other crop residues with non-burning alternatives	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	-1
AIR04	Crop	Pasture			Use drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	5	0	3	3	0	3	3	3	3	2			
AIR06	Crop				Replacing oil- and wood-fired heaters in orchards and vineyards	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	2	0	0	1				
AIR07	Crop	Pasture	Range	Forest	GPS, targeted spray application (SmartSprayer), or other chemical application electronic control technology	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	5	0	3	2	0	2	2	2	3					
ANM01	Crop				Drainage water management for seasonal wildlife habitat	3	0	0	0	2	5	-1	0	0	0	0	1	2	0	0	0	2	-2	0	0	0	0	0	5	3	2	0			
ANM02	Crop				Defer crop production on temporary and seasonal wetlands	2	0	0	0	3	4	0	0	3	0	0	0	0	0	0	3	-1	0	0	0	0	0	5	3	3	0				
ANM03		Pasture			Incorporate native grasses and/or legumes into 15% or more of the forage base	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	3	0	3	3	0	1	2					
ANM04	Crop	Pasture			Extend existing filter strips for water quality protection and wildlife habitat	3	0	0	0	1	0	0	1	0	0	0	5	4	4	3	0	1	0	0	3	0	1	4	4	3	0				
ANM05	Crop	Pasture	Range		Extending riparian forest buffers for water quality protection and wildlife habitat	2	0	3	0	1	0	0	1	0	0	0	5	5	5	3	0	3	3	1	0	3	1	1	4	4	3	0			
ANM06	Crop	Pasture	Range		Extending existing riparian herbaceous cover for water quality protection and wildlife habitat	2	0	3	0	1	0	0	1	0	0	0	5	4	4	3	0	1	0	0	3	1	1	4	4	3	0				
ANM07	Crop	Pasture			Extending existing field borders for water quality protection and wildlife habitat	2	0	0	0	1	0	0	1	0	0	0	3	2	2	1	0	1	0	0	3	0	1	4	4	3	0				
ANM08	Crop	Pasture			Improve the plant diversity and structure of non-cropped areas for wildlife food and habitat	0	0	0	0	1	0	0	1	0	0	0	1	1	1	1	0	1	0	0	2	1	0	4	2	2	0				
ANM09		Pasture	Range	Forest	Grazing management to improve wildlife habitat	0	0	0	0	3	0	0	2	1	0	0	0	0	0	0	0	0	0	3	0	0	5	1	1	0					
ANM10	Crop				Harvest hay in a manner that allows wildlife to flush and escape	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5	1	1	2					
ANM11		Pasture	Range	Forest	Patch-burning to enhance wildlife habitat	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	-1	0	0	4	2	3	5	0	4	0					
ANM12	Crop	Pasture	Range	Forest	Shallow water habitat	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	1	0	0	5	5	3	0					
ANM13	Crop	Pasture	Range		Non-forested riparian zone enhancement for fish and wildlife	0	0	3	0	2	0	0	1	3	0	0	1	1	1	1	0	0	0	3	0	1	4	4	2	0					
ANM14	Crop	Pasture	Range	Forest	Riparian forest buffer, terrestrial and aquatic wildlife habitat	0	0	3	0	2	0	0	1	3	0	0	1	1	1	1	0	0	0	3	0	0	4	5	4	0					
ANM15				Forest	Forest stand improvement for Wildlife Habitat and Soil Quality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	2	4	0					
ANM17		Pasture	Range		Monitoring nutritional status of livestock using the NUTBAL PRO System	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	2	0	0	0	0	5	0	0	0	3				
ANM18		Pasture	Range	Forest	Retrofit watering facility for wildlife escape	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	4	0					
ANM19	Crop	Pasture	Range	Forest	Wildlife corridors	1	1	1	0	2	0	0	2	1	0	0	0	1	1	1	0	3	1	0	4	1	0	5	3	3	0				
ANM20		Pasture		Forest	Silvopasture for wildlife habitat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	4	2	2	0					
ANM21	Crop	Pasture	Range		Prairie Restoration for Grazing and Wildlife Habitat	2	2	2	0	2	2	0	0	3	0	0	2	2	2	0	0	2	0	1	0	3	2	1	3	1	2	3			
ANM22	Crop	Pasture	Range	Forest	Restoration and Management of Rare or Declining Habitats	1	1	0	0	2	0	0	0	0	0	0	1	1	1	0	0	1	1	0	4	5	0	5	3	5	0				
ANM23	Crop	Pasture	Range	Forest	Multi-Species Native Perennials for Biomass/Wildlife Habitat	3	3	0	0	2	0	0	1	1	0	0	3	3	3	0	0	1	0	1	0	3	0	0	2	2	1	4			
ANM24				Forest	Forest Wildlife Structures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	3	0					

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						sheet, rill, wind, irrigation,	ephemeral, gully	streambank, shoreline*	road banks, construction sites*	organic matter depletion (habitat, compaction, water partitioning)	OM oxidation	salinity, other contaminants	nutrient cycling	compaction	excess water	insufficient water	inefficient use of irrigation water	sediment	nutrients	pesticides	pathogens	salinity	airborne soil particulates (PM)	greenhouse and ozone gases	chemical spray drift*	odors	quantity, diversity, health, vigor	declining populations-T&E species	Domestic Livestock-cover, food, and water	Terrestrial Wildlife-cover, food, connectivity, and water	Aquatic Wildlife-structure, food, water temperature	Declining populations-T&E species	energy conservation	
ANM25		Pasture			Stockpiling Forages to Extend the Grazing Season	2	0	0	0	1	0	0	2	1	0	0	0	1	1	0	1	0	0	0	0	0	0	3	0	4	0	0	0	5
ANM26		Pasture	Range		Managing Calving to Coincide with Forage Availability	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	
ENR03	Crop	Pasture	Range		Pumping plant powered by renewable energy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	
ENR05	Crop	Pasture	Range	Forest	Locally grown and marketed farm products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5	
PLT01	Crop	Pasture	Range	Forest	Establish pollinator habitat	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4	2	0	5	2	4	0		
PLT02		Pasture	Range	Forest	Monitor key grazing areas to improve grazing management	2	2	2	0	1	0	0	2	2	0	0	0	1	1	0	1	0	1	0	0	4	1	4	3	2	2	0		
PLT03				Forest	Forest stand improvement pre-treating vegetation and fuels	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0		
PLT04				Forest	Forest Stand Improvement, Prescribed burning	0	0	0	0	-1	0	0	1	0	0	0	0	0	0	0	0	0	-2	0	0	5	2	0	4	2	2	0		
PLT05	Crop			Forest	Multi-story cropping, sustainable management of nontimber forest plants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	3	2	0	0			
PLT06	Crop	Pasture			Renovation of a Windbreak, Shelter Belt or Hedgerow for Wildlife Habitat	3	0	0	0	1	0	0	0	0	0	2	1	2	0	2	0	3	1	2	1	4	0	1	5	0	2	1		
PLT07				Forest	Hardwood Crop Tree Release	1	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	2	1	0	0	5	0	2	3	0	2	0		
PLT08	Crop				Habitat Development for Beneficial Insects for Pest Management	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	1	0	5	2	4	0	0			
PLT10		Pasture	Range		Intensive Management of Rotational Grazing	1	0	0	0	2	0	0	1	2	0	1	0	2	2	0	2	0	0	5	0	5	2	3	0	2				
PLT11				Forest	Conifer Crop Tree Release	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	2	1	0	0	5	0	2	3	0	2	0			
PLT12				Forest	Patch Harvesting	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	1	0	-1	-1			
SOE01	Crop				Continuous no till with high residue	5	3	0	0	4	3	2	3	3	0	5	0	5	3	0	0	3	3	0	0	0	0	0	2	1	0	4		
SOE02	Crop	Pasture	Range	Forest	Protection of Cultural Resource	2	2	2	0	2	0	0	1	1	0	0	2	1	1	0	0	3	1	0	0	2	0	0	2	2	1	0		
SOE03	Crop				Continuous No Till Organic System	5	3	0	0	4	3	2	3	3	0	5	3	3	0	0	3	3	3	0	0	0	0	0	3	3	0	4		
SQL01	Crop				Controlled traffic system	2	0	0	0	0	0	2	0	5	0	3	0	3	1	1	0	0	0	3	0	0	0	0	0	0	3			
SQL02	Crop				Continuous cover crops	5	4	0	0	5	2	2	4	3	0	0	0	5	5	2	0	3	5	2	0	0	0	0	2	1	1	2		
SQL03	Crop				Drainage water management for nutrient, pathogen, or pesticide reduction	1	1	0	0	3	4	-1	0	0	-1	0	2	4	4	4	0	3	-3	0	0	0	0	0	0	1	3	1	0	
SQL04	Crop				Use of Cover Crop Mixes	2	2	0	0	3	0	1	3	3	0	0	0	2	4	2	0	0	2	1	0	0	4	0	0	2	1	1	2	
SQL05	Crop				Use deep rooted crops to breakup soil compaction	2	2	0	0	4	0	1	3	5	0	2	0	2	4	1	0	0	2	1	0	0	1	0	0	2	1	1	3	
SQL06	Crop				Conversion of cropped land to grass based agriculture for biomass or forage production and wildlife habitat	5	4	0	0	4	3	3	2	3	0	2	0	5	3	3	0	0	3	4	0	0	4	0	0	3	2	1	5	
SQL07				Forest	Forest Stand Improvement for Soil Quality	1	0	0	4	3	0	0	2	4	1	1	0	2	0	0	0	1	0	0	0	2	0	0	2	0	0	2		
WQL01		Pasture	Range		Biological suppression and other non-chemical techniques to manage brush, weeds and Invasive Species	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	5	0	3	0	2	0	0	0	2		
WQL03		Pasture	Range	Forest	Rotation of supplement and feeding areas	2	1	2	0	0	0	0	2	3	0	1	0	4	4	0	4	1	2	0	0	3	0	4	1	3	1	0		
WQL04	Crop				Plant tissue tests and analysis to improve nitrogen management	0	0	0	0	1	0	0	4	0	0	0	0	5	0	0	0	0	3	0	0	3	0	0	0	0	1	0	2	
WQL06	Crop	Pasture			Apply controlled release nitrogen fertilizer	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	3	0	0	3	0	2	1	1	0	2		
WQL07	Crop	Pasture			Split nitrogen applications 50% after crop/pasture emergence/green up	0	0	0	0	1	0	0	4	0	0	0	0	5	0	0	0	0	3	0	0	3	0	0	0	0	2	1	0	
WQL08	Crop				Apply split applications of nitrogen based on a pre-sidedress nitrogen test on cropland	0	0	0	0	2	0	0	5	0	0	0	0	5	0	0	0	0	5	0	0	4	0	0	0	3	1	0		

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WQL10	Crop				Plant a cover crop that will scavenge residual nitrogen	2	2	0	0	3	0	1	4	2	0	0	0	2	5	1	0	0	2	2	0	0	2	0	0	2	2	1	2
WQL11	Crop	Pasture			Precision application technology to apply nutrients	0	0	0	0	1	0	0	3	1	0	0	0	0	5	0	0	0	0	3	0	0	3	0	2	0	2	1	2
WQL12		Pasture	Range	Forest	Managing livestock access to water bodies/courses	0	0	5	0	0	0	0	1	0	0	0	4	4	0	4	0	0	0	0	2	0	3	3	4	2	0		
WQL13	Crop	Pasture	Range	Forest	High level Integrated Pest Management to reduce pesticide environmental risk	0	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	1	5	0	3	2	2	4	4	2	2		
WQL14	Crop	Pasture			Land Application of Treated Manure	0	0	0	0	3	0	0	3	0	0	0	0	5	0	0	0	2	0	5	1	0	0	0	2	1	0		
WQL15	Crop	Pasture			Reduce the concentration of nutrients on farm by limiting the amount of feed and fertilizer brought on livestock farms	0	0	0	0	4	0	0	4	0	0	0	0	5	0	0	0	3	0	0	0	0	1	0	3	1	5		
WQL16	Crop				Use of legume cover crops as a nitrogen source	2	2	0	0	4	0	1	4	2	0	0	0	2	4	1	0	0	2	4	0	0	2	0	0	2	1	5	
WQL17	Crop				Use of non-chemical methods to kill cover crops	0	0	0	0	2	0	0	0	0	0	0	2	0	5	0	0	1	3	5	0	0	0	0	2	1	3		
WQL18		Pasture	Range	Forest	Non-Chemical Pest Control for Livestock	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	1	0	0	0	3	3	3	1	1			
WQL19		Pasture	Range	Forest	Transition to Organic Grazing System	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	3	4	4	2	2			
WQL20	Crop				Transition to Organic Cropping System	0	0	0	0	2	0	0	3	0	0	0	4	4	0	0	0	3	0	0	0	0	3	3	1	2			
WQL21	Crop	Pasture	Range		Integrated Pest Management for Organic Farming	0	0	0	0	0	0	1	0	0	0	5	0	0	0	0	1	5	0	3	2	2	4	4	2	2			
WQL22	Crop	Pasture			On Farm Composting of Farm Organic Waste	0	0	0	0	5	0	0	5	0	0	4	0	5	0	0	0	5	2	0	0	0	0	0	0	3			
WQL23		Pasture	Range		Provide Livestock Protection Away from Sensitive Areas	0	0	2	0	0	0	0	0	0	2	2	0	2	0	1	0	0	0	2	0	4	2	2	0	0			
WQT01	Crop	Pasture			Irrigation system automation	3	1	0	0	0	0	3	0	0	4	4	5	2	2	2	1	2	0	0	1	0	2	0	0	4			
WQT02	Crop				Mulching for moisture conservation	2	0	0	0	1	0	0	0	0	0	3	4	2	2	0	0	0	1	0	2	0	0	0	0	1			
WQT03	Crop	Pasture			Irrigation pumping plant evaluation	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	2	0	2	0	0	0	0	0	0	5			
WQT04	Crop	Pasture			Regional weather networks for irrigation scheduling	3	1	0	0	0	0	3	0	0	4	4	5	2	2	0	0	2	0	0	1	0	2	0	0	4			
WQT05	Crop	Pasture			Remote monitoring and notification of irrigation pumping plant operation	3	1	0	0	0	0	3	0	0	4	4	5	2	2	0	0	2	0	0	1	0	2	0	0	4			
<b>Enhancement Bundles</b>																																	
BCR01	Crop				Crop Technology Bundle #1	0	0	3.3	0	2.7	0	1.1	4.9	1.1	0	0	0	5.5	10.9	24	3.3	0	1.1	7.6	18.5	0	18.5	8.7	6	16.4	18.5	13.1	10.9
BCR02	Crop				Crop Technology Bundle #2	7.8	6.8	0	0	9.7	1.9	4.4	8.8	5.4	0	0	0	7.8	9.7	15.6	0	2.9	7.8	8.8	4.9	0	16.5	5.4	1.9	20.4	10.7	13.6	9.7
BCR03	Crop				Crop Technology Bundle #3	8.5	5.8	3.2	0	10.6	3.2	4.8	14.9	5.8	0	5.3	0	14.9	20.2	11.7	3.2	0	7.4	10.6	5.3	0	12.7	2.1	3.7	14.9	15.9	8.5	9.6
BPA01		Pasture			Pasture Grazing Bundle #1	5.3	4.1	11.7	0	9.4	0	0	10.5	9.4	0	1.2	0	11.7	11.7	0	11.7	1.2	4.1	0	0	19.9	1.2	18.7	19.9	12.9	9.4	2.3	
BRA01			Range		Range Grazing Bundle #1	4.8	3.7	10.7	0	4.8	0	0	7.5	8.6	0	1.1	0	10.7	10.7	0	10.7	1.1	3.7	0	0	15	1.1	17.1	20.3	11.8	11.8	0	
BFO01				Forest	SE Pine Forest Bundle #1	1.3	1.3	0	0	1.3	0	0	1.3	-1.3	0	0	0	1.3	1.3	1.3	0	0	1.3	-1.3	0	0	18.9	12.6	0	27.7	17.6	21.4	0
BFO02				Forest	Forest Bundle #2	2.7	1.1	3.2	0	5.9	0	0	2.7	3.2	0	0	0	3.8	2.7	2.7	1.1	0	3.8	2.7	0	0	17.2	8.6	2.1	25.8	18.3	22.6	0
<b>Research, Demonstrations, and Pilot Projects</b>																																	
FRD01	Crop	Pasture	Range	Forest	On Farm Research and Demonstrations	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	2
FPF02	Crop	Pasture	Range	Forest	On Farm Pilot Projects	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	1	1	0.5	0.5	0.5	0.5	2
<b>Resource Conserving Crop Rotation</b>																																	
CCR99	Crop				Resource-Conserving Crop Rotation	4	3	0	0	5	2	2	3	3	0	1	0	3	3	2	0	0	2	2	0	0	3	0	1	2	1	0	2