

Conservation Stewardship Program 2012 Ranking Period 1 Activity List for Planners

Code	Eligible Land Use				Enhancement Name	Enhancement Description (See Job Sheet criteria for requirement details)	Units	Actual/System	Max Actual Performance Points	Conditions Where Enhancement Applies	Information States Need to Develop Prior to Signup	May Be Applicable on Land Adjacent to Eligible Land
AIR03	Crop				Replace burning of prunings, removals and other crop residues with non-burning alternatives	The use of non-burning alternatives to dispose of prunings, removals and other crop residues from orchards, vineyards and other woody perennial crops. Non-burning alternatives include chipping, grinding, shredding, mowing or composting of these materials	acre	System	2.25	Only applies to acres of orchards, vineyards, and other woody perennial cropping systems that produce significant residues that have used burning in prior years.	State List of acceptable alternatives to burning	No
AIR04	Crop	Pasture			Use drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift	Use drift reduction technologies to reduce the drift of agricultural chemicals away from the intended target when spraying.	acre	System	10.89	Applies to all crop or pasture land use acres.	List of acceptable drift reducing methods that are applicable to their states	No
AIR07	Crop	Pasture	Range	Forest	GPS, targeted spray application (SmartSprayer), or other chemical application electronic control technology	Utilize electronically-controlled or managed chemical spray application technology to more precisely apply agricultural pesticides to their intended targets.	acre	System	10.89	Applies to all crop, pasture, range or forest land use acres.	List of acceptable chemical application electronic control technologies.	Yes
AIR08	Crop	Pasture			Nitrification inhibitors or urease inhibitors	The use of an ammonia or ammonium fertilizers with a substance that inhibits the biological oxidations of ammoniacal nitrogen to nitrate nitrogen or the use of surface applied urea products with a substance that inhibits hydrolytic action on urea by urease enzyme that when applied to soils results in less urea nitrogen lost by ammonia volatilization (AAPFCO). This enhancement is only applicable to nitrogen applied within 30 days of planting. This does not apply to "pop-up" or starter nitrogen sources applied at planting time.	acre	System	3.91	Applies to climatic areas and soils on cropland or pastureland where nitrogen fertilizer is applied and where either nitrification inhibitors or urease inhibitors are recommended by the Land Grant University.	States need to identify those materials that are considered to meet this criteria	No
ANM03		Pasture			Incorporate native grasses and/or legumes into 15% or more of herbage dry matter productivity	Improve pasture by increasing native grasses and/or legumes to 15% of herbage dry matter (productivity by weight) using adapted species and varieties, appropriate seeding rates, and timing of seeding. Pastures containing about 15% native grasses and/or legumes by weight dry matter are approximately equal to 30% foliar cover.	acre	Actual	7.96	Only applies to acres of pasture land use that DO NOT currently have a mixed stand of native grasses and/or legumes.	States need to identify adapted species, seeding rates, and seeding dates.	No
ANM05	Crop	Pasture	Range		Extending riparian forest buffers for water quality protection and wildlife habitat	Where existing riparian forest buffers (i.e., buffers) are utilized, extend them to gain more efficiency in intercepting overland flow, reducing the transport of nutrients, pesticides and agro-chemicals, and for wildlife habitat.	acre	Actual	14.94	Only applies to acres of <u>existing</u> riparian forest buffer(s) on crop, pasture or range land uses.	States need to identify list of 5 species of non-noxious, wildlife friendly trees and/or shrubs. List should include species for pollinator food and habitat.	Yes
ANM07	Crop	Pasture			Extending existing field borders for water quality protection and wildlife habitat	Where existing field borders are utilized, extend them to gain more efficiency in intercepting overland flow and reducing the transport of nutrients, pesticides and agro-chemicals, and for wildlife habitat.	acre	Actual	9.75	Only applies to acres of <u>existing</u> field borders on crop or pasture land uses.	States need to identify list of 5 species of non-noxious, wildlife friendly grasses, perennial forbs and/or shrubs.	Yes
ANM09		Pasture	Range	Forest	Grazing management to improve wildlife habitat	Implement a grazing management plan that allows for rest periods to provide adequate residue for nesting and fawning cover and increase diversity of vegetation structure to benefit a variety of wildlife species.	acre	System	7.00	Applies to all pasture (including silvopasture), range or forest land use acres.	States need nesting/ fawning dates	No
ANM10	Crop				Harvest hay in a manner that allows wildlife to flush and escape	Harvesting hay using conservation measures that allow wildlife to flush and escape. These measures include timing of haying to avoid periods when upland wildlife are nesting or fawning, idling hay land during the nesting or fawning period, and applying haying techniques that reduce mortality to wildlife.	acre	System	6.19	Only applies to any annual planted or perennial hayland acres (a sub-component of the crop land use).	States need nesting/ fawning dates and minimum forage heights.	No
ANM11		Pasture	Range	Forest	Patch-burning to enhance wildlife habitat	Use prescribed burning with livestock grazing to create patches of different vegetation structure and species composition for the benefit of wildlife.	acre	System	7.42	Applies to all pasture, range or forest land use acres. This enhancement is not for the purpose of conducting wildfire reduction burns or forest stand improvement burns on forest land use acres.	States need nesting/ fawning dates	No

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ANM12	Crop	Pasture	Range	Forest	Shallow water habitat	Construct or renovate small, shallow sites to impound or hold water seasonally, typically from late winter through early summer (e.g., vernal pools).	acre	Actual	5.74	Applies to all crop, pasture, range or forest land use acres.		No
ANM17		Pasture	Range		Monitoring nutritional status of livestock using the NUTBAL PRO system	Use of the NUTBAL PRO software to determine if current diet is sufficient to meet livestock nutritional needs. This requires the collection and laboratory analysis of forage or fecal samples to determine the nutritional value of grazing forages.	acre	System	5.66	Applies to all pasture or range land use acres.		No
ANM18		Pasture	Range	Forest	Retrofit watering facility for wildlife escape	Retrofit existing watering facilities (troughs, tanks, etc.) to allow for escape of wildlife that become trapped while trying to drink.	no.	Actual	3.16	Applies to all watering facilities in the pasture, range or forest land use area.		No
ANM21	Crop	Pasture	Range		Prairie restoration for grazing and wildlife habitat	This activity consists of restoring/renovating prairie habitat by establishing native vegetation and managing the restored plant community.	acre	Actual	13.55	Applies to sites that have soils that indicate it was once a prairie or can sustain native prairie species.	States will need to develop seed mixes (i.e., at least 4 species of native perennial and at least 4 species of native forbs) for prairie restoration.	No
ANM23	Crop	Pasture	Range		Multi-species native perennials for biomass/wildlife habitat	This enhancement consists of establishing native perennial vegetation for biomass production and wildlife habitat.	acre	Actual	14.60	Applies to all crop, pasture, or range land use acres.	States will need to identify suitable native perennial planting mixes and the species of concern.	No
ANM25		Pasture			Stockpiling of forages to extend the grazing season	Livestock are excluded from forages on specified acres during the growth season. The "stockpiled" forages are grazed at a later time using strip grazing to allow animals to utilize the forage within a strip for a specified period of time.	acre	System	11.05	Applies to all pasture land use acres.	States need to identify the grazing season	No
ANM26		Pasture	Range		Managing calving to coincide with forage availability	This enhancement uses a controlled breeding season to match livestock nutrient requirements to available pasture forage and reduce supplemental feeding. This enhancement is applicable to all grazing livestock.	acre	System	5.75	Applies to all pasture or range land use acres.	States need to identify the grazing season	No
ANM27	Crop	Pasture	Range	Forest	Wildlife friendly fencing	This enhancement involves the use of wildlife friendly fencing techniques that allow free passage of daily wildlife movement and seasonal migration; and/or increase visibility to prevent entanglement and mortality.	Ft.	Actual	2.45	Applies to cropland, pastureland, rangeland or forestland that has existing fencing in need of a retrofit.	Review fence standard to see if it has criteria for wildlife friendly fencing	Yes
ANM29		Pasture	Range	Forest	On-farm forage based grazing system	A forage based grazing system that supplies all roughage (forage and supplemental hay) requirements for a livestock operation.	acre	System	8.78	Applies to all pasture, range or forest land use acres.	States need to define beginning and ending grazing heights by forage species.	No
ANM31	Crop				Drainage water management	This enhancement consists of seasonal hydrology management during non-cropping periods for wildlife habitat on working lands.	acre	Actual	9.84	Applies to cropland that has been artificially drained (surface or subsurface) and which is flat enough that significant portions can be flooded or saturated by controlling outflow from the drainage system.	Identify types of landscape that have the potential for seasonal hydrology management and the targeted species or suite of species.	No
ANM32	Crop	Pasture	Range		Extend existing filter strips or riparian herbaceous cover for water quality protection and wildlife habitat	Where existing filter strips or riparian herbaceous covers (i.e., buffers) are utilized, extend them to gain more efficiency in intercepting overland flow and reducing the transport of nutrients, pesticides and agro-chemicals, and for wildlife habitat.	acre	Actual	12.87	Only applies to acres of <u>existing</u> buffers on crop, pasture, or range land uses.	States need to identify list of 5 species of non-noxious, wildlife friendly grasses and/or perennial forbs	Yes
ANM33	Crop	Pasture	Range	Forest	Riparian buffer, terrestrial and aquatic wildlife habitat	This activity consists of managing riparian zones by utilizing select conservation measures (such as re-locating equipment operations, trails, or livestock; establishing diverse native vegetation and controlling invasive species; fencing; and extending the width of the riparian zone to enhance wildlife habitat adjacent to riparian zones of streams, ponds, lakes, or wetlands) to achieve stream side cover and vegetative diversity and structure to improve terrestrial and aquatic wildlife habitat.	acre	Actual	8.71	Only applies to <u>existing</u> acres of forested riparian zones on crop, pasture, range or forest land uses, OR existing acres of non-forested riparian zones on crop, pasture, or range land uses.	States need list of suitable woody and/or herbaceous plants	Yes
ANM34	Crop				Leave standing grain crops un-harvested to benefit wildlife	Implement a crop management plan that will allow a portion of grain crops to be left in fields un-harvested to provide food and cover for wildlife during winter months.	acre	System	8.57	Applies only to cropland where grain crops such as corn, soybean, sorghum, or small grains are grown.		No
ENR01	Crop				Fuel use reduction for field operations	This enhancement is for fuel savings of 20% or more achieved by a reduction in field operations when compared to the existing management system.	acre	System	9.45	Applies to all crop land use acres.		No

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ENR09	Crop	Pasture	Range	Forest	Variable frequency drive electric motors	This enhancement activity is for upgrading of existing single speed electric motors through the addition of variable frequency electric drives. A motor replacement may also be included in some cases. The primary use of this enhancement is for water pumping whether for irrigation, drainage or livestock watering. This enhancement is not intended for farmstead or animal housing applications.	no.	Actual	5.75	Applies to only the number of single speed electric motors without variable speed drives within the selected land use. This enhancement does not apply to single speed electric motors for farmstead or animal housing applications.		Yes
ENR10	Crop	Pasture			Using nitrogen provided by legumes, animal manure and compost to supply 90 to 100% of the nitrogen needs	This enhancement involves using nitrogen produced by legumes and/or available animal manure and compost to supply 90 to 100% of nitrogen nutrient needs for crops, hay and/or forages produced on the farm.	acre	System	17.98	Applies to all crop or pasture land use acres.		No
ENR11	Crop	Pasture			Improving energy feedstock production using alley cropping systems with short rotation woody crops	This enhancement involves the use of short rotation woody plants that produce energy feedstock planted in multiple rows with crops or forages produced in the alleyways between the woody rows.	acre	System	12.87	Applies to all acres of the selected land use.	States need to identify list of suitable short rotation woody plants and maximum alley spacing between woody rows.	No
ENR12	Crop				Use of legume cover crops as a nitrogen source	This enhancement is for the use of legume cover crops as a primary source of nitrogen in a cropping system. Use of legume cover crops is applicable to conventional, specialty and organic crop production systems.	acre	System	15.16	Applies to all crop land use acres.	Follow State Land Grant University guidelines for credits	No
PLT02		Pasture	Range	Forest	Monitor key grazing areas to improve grazing management	Adjust grazing management based on monitoring data. Monitor key grazing areas to determine if current grazing management is meeting management goals and objectives. A key grazing area is a small area of a grazed field that is identified as being representative of the entire field.	acre	System	10.36	Applies to all acres in the operation for the selected land use.	Need to identify acceptable monitoring methods	No
PLT05	Crop			Forest	Multi-story cropping, sustainable management of non-timber forest plants	This activity involves the manipulation of forest species composition, structure, and canopy cover to achieve or maintain a desired native plant community to facilitate the sustainable management of native non-timber forest plant(s) (e.g., goldenseal, ramps, mushrooms, ginseng, ferns, "sugarbush", etc.).	acre	System	5.62	Applies to forestland and cropland (sugar bush) where the forest is managed for harvestable non-timber plants in addition or instead of timber.	List of common non-timber forest products for the state	No
PLT06	Crop	Pasture	Range		Renovation of a windbreak, shelter belt or hedgerow for wildlife habitat	This enhancement is for the renovation of existing sites that are declining in vigor, need additional woody plants (trees or shrubs) or otherwise no longer provide wildlife habitat benefits. Existing rows of woody plants may be thinned, removed or replaced with new plantings. Existing woody plants may be pruned, either branches or roots or both, to improve windbreak function, health and vigor.	acre	Actual	13.00	Applies only to the acres of existing windbreaks or shelterbelts in the crop or pasture land use.	State list of wildlife species that would benefit from renovation; list of windbreak species that are needed to accomplish this.	Yes
PLT15	Crop	Pasture	Range	Forest	Establish pollinator and/or beneficial insect habitat	Seed nectar and pollen producing plants in non-cropped areas such as field borders, vegetative barriers, contour buffer strips, waterways, shelterbelts, windbreaks, conservation cover, and riparian forest and herbaceous buffers.	acre	Actual	9.02	Applies to all crop, pasture, range or forest land use acres.	State need to develop list of suitable plants for pollinator and/or beneficial insect habitat; also, may need a seed source list	Yes
PLT16		Pasture	Range	Forest	Intensive rotational grazing	This enhancement is for the <u>harvest efficiency</u> of grazing livestock to increase forage harvest, and to improve forage quality and livestock health. The grazing system is managed to produce high quality, nutritious forage and maintain plants with sufficient energy reserves to recover quickly when adequate soil moisture is available for regrowth. Generally, livestock are rotated through pastures in the grazing system based on their daily dry matter intake and nutritional requirements, and the physiological growth and nutritional stage of the forage plants. This enhancement is for rotational grazing systems with increased numbers of pastures or paddocks, the accompanying required infrastructure, shorter grazing periods, and increased stock density.	acre	System	16.35	Applies to all acres in the operation for the selected land use.	States may need to develop training material on "harvest efficiency"	No
PLT17				Forest	Creating forest openings to improve hardwood stands	Creating forest openings or patches is a silvicultural practice used to naturally regenerate over-mature and/or degraded hardwood stands while providing added cover and browse for several game and non-game species of wildlife.	acre	System	2.64	Applies to forest land use acres with conifers, hardwoods or mixed stands that have a forest management plan that recommends thinning within the next 3 years.	States will need to identify acceptable post harvest regeneration species	No
PLT18	Crop	Pasture			Increasing on-farm food production with edible woody buffer landscapes	This enhancement is for the enhancing of windbreaks, alley cropping, silvopasture, or riparian forest buffer systems with trees and shrubs that produce edible products for human or wildlife consumption.	acre	Actual	15.00	Applies to all crop or pasture land use acres.	States will need to develop lists of suitable woody plants	No

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SOE03	Crop				Continuous no-till ORGANIC system	This enhancement is for using a continuous no-till, strip till, or direct seeding method of planting throughout the planned rotation. High residue levels are maintained by including high residue-producing crops, or by low residue crops followed by a cover crop in the rotation. Termination of all cover crops is accomplished using non-chemical methods, such as flail mowing, roller crimper and frost kill.	acre	System	23.27	Applies to all organic or transitioning to organic, annually planted crop land use acres.	States need to define high residue, low residue crops	No
SOE04	Crop				Continuous no-till	This enhancement is for using a continuous no-till, strip till, or direct seeding method of planting throughout the planned rotation. High residue levels are maintained by including high residue-producing crops, or by low residue crops followed by a cover crop in the rotation. Termination of all cover crops is accomplished using chemical methods or non-chemical methods, such as flail mowing, roller crimper and frost kill.	acre	System	23.27	Applies to all acres of annually planted cropland.	States need to define high residue, low residue crops	No
SQL01	Crop				Controlled traffic system	Controlled traffic confines heavy traffic from tractor drive wheels/tracks, combine wheels, fertilizer or manure spreaders and grain carts to specific lanes in crop fields year after year.	acre	System	11.06	Applies to all annually planted crop land use acres.		No
SQL02	Crop				Continuous cover crops	Growing continuous <i>seasonal</i> cover crops of grasses, legumes or forbs following all annual crops during all the non-crop production periods of the rotation. Continuous cover cropping is applicable to conventional, specialty and organic crop production systems.	acre	System	17.98	Applies to all acres of annually planted cropland. These acres can be organic, transitioning to organic, or non-organic.	States will need to be sure their cover crop recommendations are up to date and cover the five different criteria listed in the enhancement	No
SQL03	Crop				Drainage water management for nutrient, pathogen, or pesticide reduction	This enhancement consists of managing soil and/or surface water levels during the non-cropping season in order to reduce the loss of nutrients, pathogens, or/and pesticides from a crop field through drainage systems and into downstream receiving waters. This enhancement may also be utilized to reduce the oxidation of organic matter in the soil and/or reduce wind erosion or particulate matter (dust) emissions.	acre	Actual	6.18	Applies to cropland that has been artificially drained (surface or subsurface) and which is flat enough that significant portions can be flooded or saturated by controlling outflow from the drainage system.	States Identify types of landscape that have the potential for flooding or saturated	No
SQL04	Crop				Use of cover crop mixes	This enhancement is for the use of cover crop mixes that contain two (2) or more different species of cover crops or cultivars of a single species.	acre	System	15.16	Applies to all crop land use acres.	States need to develop list of approved cover crop mixes	No
SQL05	Crop				Use of deep rooted crops to breakup soil compaction	This enhancement is for the use of deep rooted crops to break up compacted soils and improve soil quality. Deep rooted crops can be perennial plants like alfalfa or annual plants like forage radish.	acre	System	15.16	Applies to all crop land use acres.	States need to develop list of approved deep rooted crops	No
SQL08	Crop				Intercropping to improve soil quality and increase biodiversity	This enhancement involves the use of intercropping principles, growing two or more crops in close proximity to each other, to promote interaction resulting in improved soil and water quality while increasing biodiversity.	acre	System	10.19	Applies to all crop land use acres.		No
SQL09	Crop				Conversion of cropped land to grass-based agriculture	Conversion of cropped land to grass-based agriculture is the establishment of mixtures of perennial grasses, forbs and/or legume species on cropland where annually-seeded cash crops have been grown in monocultures. Select perennial species selection is based on species compatibility, forage quality potential, improvements to soil quality, beneficial effects for wildlife and/or production of biomass.	acre	Actual	23.35	Applies to cropland that is currently in annual crop production. It does not apply to cropland that is currently in a permanent perennial crop such as permanent hay, orchards or vineyards.	States need to develop list of acceptable perennial seed mixtures	No
WQL01		Pasture	Range	Forest	Biological suppression and other non-chemical techniques to manage brush, herbaceous weeds and invasive species	This enhancement is for the reduction of woody brush, herbaceous weeds and invasive plants using non-chemical methods. Physical methods include pulling, hoeing, mowing, mulching or other similar techniques. Biological methods include use of natural enemies either introduced or augmented. Use of chemicals is prohibited with this enhancement.	acre	System	9.01	Applies to all pasture, range or forest land use acres.	State will need to get information from land grants on Biological suppression techniques that are suitable for their area. Need analysis information to determine which method is best.	No
WQL03		Pasture	Range	Forest	Rotation of supplement and feeding areas	The proper location and regular movement of livestock concentration areas such as feeding areas and mineral blocks in a manner that will improve livestock distribution, reduce localized areas of disturbances and reduce impacts on water bodies.	acre	System	13.12	Applies to all grazing acres in the operation for the selected land use.		No
WQL04	Crop				Plant tissue tests and analysis to improve nitrogen management	Use plant tissue tests to adjust nitrogen application rates.	acre	System	8.95	Applies to all crop land use acres	States may need to have information available on how to conduct the test, where to send the samples and how to interpret the results.	No

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WQL05	Crop				Apply nutrients no more than 30 days prior to planned planting date	This enhancement is for applying nutrients from fertilizer, manures and/or compost no more than 30 days prior to the planned planting date of the crop.	acre	System	4.54	Applies to only annually planted crop land use acres.		No
WQL07	Crop	Pasture			Split nitrogen applications, 50% after the crop emergence or pasture green up	Apply no more than 50% of total crop nitrogen needs within 30 days prior to planting or in the case of pasture or hay after green up of the dormant grasses. Apply the remaining 50% or more of the total nitrogen needs after crop emergence or pasture green up.	acre	System	7.41	Applies to all crop or pasture land use acres.		No
WQL09	Crop				Apply phosphorus fertilizer below soil surface	This enhancement is for the application of all phosphorus fertilizer at least 3 inches deep, including manure, or as a 2X2 row starter. Note: the use of this enhancement may require a revised HEL plan.	acre	System	2.10	Applies to all annually planted crop land use acres.		No
WQL10	Crop				Plant a cover crop that will scavenge residual nitrogen	Plant a cover crop that will scavenge nitrogen remaining in the soil after the harvest of a previous crop. Suitable cover crops include those with at least a "Very Good" rating for scavenging nitrogen as documented in <i>"Managing Cover Crops Profitably, 3rd Edition"</i> (Sarrantonio, 1998), Chart 2 Performance & Roles, pg 67. Examples include cereal rye, barley, forage radish and sorghum sudan.	acre	System	15.16	Applies to only annually planted crop land use acres.	States will need to have list of approved cover crops for this and a way to estimate the amount of N that is scavenged.	No
WQL11	Crop	Pasture			Precision application technology to apply nutrients	The use of precision agriculture technologies to apply nutrients to fit variations in site-specific conditions found within fields.	acre	System	9.62	Applies to crop or pasture land use acres where: • Crop or forage yields can be monitored and correlated to positions in the field in order to produce a geographically accurate yield map. • Nutrients can be applied according to geographically defined management zone(s) (DMZ).		No
WQL13	Crop	Pasture	Range	Forest	High level integrated pest management to reduce pesticide environmental risk	Utilize advanced Integrated Pest Management (IPM) prevention, avoidance, monitoring, and suppression techniques, and only apply the lowest risk pesticides available (or if higher risk pesticides are used appropriate mitigation techniques are used to ameliorate the risk) in an environmentally sound manner when monitoring indicates that an economic pest threshold has been exceeded. Pesticide applications must follow all label requirements.	acre	System	11.56	Applies to all land uses where pesticide environmental risks are present that need mitigation options to meet or exceed the criteria in the job sheet.	States need to identify what constitutes the minimum mitigation index score requirement	No
WQL14	Crop	Pasture			Land application of treated manure	This enhancement is for the use of manure that has been treated to reduce both odors and pathogens prior to land application. Acceptable practices include controlled temperature anaerobic digestion (mesophilic or thermophilic), composting and chemical treatment. Waste treatment lagoons and injection of manure alone do not qualify as acceptable practices.	acre	System	5.00	Applies to crop land use acres, not including orchards and vineyards, and all pasture land use acres.		No
WQL17	Crop				Use of non-chemical methods to kill cover crops	This enhancement is for the use of non-chemical methods to kill cover crops prior to planting. These methods include mowing, rolling, undercutting and weather kill.	acre	System	9.42	Applies to all crop land use acres, not including hayland.		No
WQL18		Pasture	Range	Forest	Non- chemical pest management for livestock	The use of management, monitoring, and prevention techniques to manage external livestock pests without the use of pesticides.	acre	System	5.44	Applies to all pasture, range or forest land use acres.	States will need to identify acceptable non-chemical pest control methods	No
WQL19		Pasture	Range	Forest	Transition to ORGANIC grazing systems	"Transition to Organic Grazing Systems" supports the conversion of a conventional to an organic livestock grazing system. Key to the enhancement activity is following ecological and pasture-based grazing requirements, applying materials according to the National List of Allowed Synthetic and Prohibited Natural Substances, and managing livestock according to National Organic Program (NOP) rules (Subpart C – Organic Production and Handling Requirements) for organic certification. This enhancement activity facilitates compliance with NOP rules for organic certification.	acre	System	6.94	Applies to only pasture, range or forest land use acres in the process of transitioning to an organic production system.	States should be familiar with NOP requirements	No

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WQL20	Crop				Transition to ORGANIC cropping systems	"Transition to Organic Cropping Systems" supports the conversion of a conventional to an organic cropping system. Key to the enhancement is the inclusion of management activities that improve soil and water quality in an "Organic System Plan" that adheres to the National Organic Program (NOP) 205.201 criteria. Included in the plan are specifics on how producers will manage pests, weeds, diseases, and plant nutrients by following a crop rotation that incorporates cover crops. Additional considerations for using manure, compost, and source of seed are also addressed.	acre	System	9.03	Applies to only crop land use acres in the process of transitioning to an organic production system.	States should be familiar with NOP requirements	No
WQL21	Crop	Pasture	Range		Integrated pest management for ORGANIC farming	Managing pests on an organic farm, including farms transitioning to organic, with an Integrated Pest Management (IPM) system that relies on high level prevention, avoidance, monitoring, and suppression techniques that are based on an understanding of pest ecology. Organic IPM relies primarily on ecologically-based cultural and biological practices that result in healthy soil and habitat for beneficial organisms. Appropriate mitigation techniques are utilized to improve environmental risks from selected suppression techniques.	acre	System	11.56	Applies to all crop, pasture, or range land uses in an organic system where pesticide environmental risks are present that need mitigation options to meet or exceed the criteria in the job sheet.	States should be familiar with NOP requirements; States need to identify what constitutes the minimum mitigation index score requirement	No
WQL22	Crop	Pasture			On farm composting of farm organic waste	This enhancement consists of the on farm composting of organic waste from agricultural operations. Composted products must be reused on the farm. This includes ALL animal manures, livestock mortality (where state or local laws allow), vegetable culls removed from the field and waste from on farm processing of agricultural products. It does not include any household waste, any hazardous waste products or bio-hazard waste products. Yard waste such as grass clippings and leaves can be included but are not required.	acre	System	11.03	Applies to farms that produce livestock manure, vegetable waste and/or other organic waste from on farm processing facilities.		No
WQL24	Crop	Pasture			Apply enhanced efficiency fertilizer products	At least 50% of the pre-emergent and early post emergent nitrogen fertilizer and/or phosphorus fertilizers used for crop production must include enhanced efficiency formulations.	acre	System	9.05	Applies to all crop or pasture land use acres.	States need to identify those materials that are considered to meet this criteria	No
WQL25	Crop				Split applications of nitrogen based on a PSNT	Use <u>pre-sidedress</u> soil nitrate test (PSNT) to determine the need and/or amount of additional nitrogen to be applied during a sidedress/topdress N application.	acre	System	9.91	Applies to all annually planted crop land use acres in states where a Land Grant University approves the methodology.	States may need to have information available on how to conduct the test, were to send the samples and how to interpret the results.	No
WQL26	Crop	Pasture			Reduce the concentration of nutrients imported on farm	Grow at least 75% of feed for livestock on the farm and use manure from the livestock to supplement up to 50% of N, 90% of P and 90% K for crops grown on the farm.	acre	System	11.44	Applies to all crop or pasture land use acres.	Follow State Land Grant Uni. Guidelines for credits	No
WQT01	Crop	Pasture			Irrigation system automation	This enhancement entails using GPS guided variable rate irrigation or other innovative technologies that allow irrigation water application based on variable site conditions within a field.	acre	System	13.46	Applies to only the irrigated acres in the crop or pasture land use.		No
WQT03	Crop	Pasture			Irrigation pumping plant evaluation	This enhancement consists of the evaluation of the pumping plant performance and efficiency using the Nebraska Irrigation Pumping Plant Performance Criteria.	no.	Actual	8.85	Applies to all pumping plants in the crop or pasture land use.		Yes
WQT05	Crop	Pasture			Remote monitoring and notification of irrigation pumping plant operation	A system for monitoring the status of an irrigation pumping plant and notifying the operator by a wireless connection of a change in the operating status of the irrigation system.	no.	Actual	12.75	Applies to all the irrigation pumping plants in the crop or pasture land use.		No
WQT07	Crop	Pasture			Regional weather networks for irrigation scheduling	Crop evapotranspiration (crop ET) information from a regional weather network is utilized as a part of the irrigation water management plan for irrigation scheduling. Water use is planned and adjustments in application rates and timing are made using the regional weather network data.	acre	System	12.75	Applies to irrigated cropland or pastureland where regional weather data is not currently used to schedule irrigation events.	Identify regional weather networks available in the state	No
WQT08	Crop	Pasture			Decrease irrigation water quantity or conversion to non-irrigated crop production	This enhancement consists of reducing the total quantity of irrigation water used to produce crops and forages or the conversion of land to non-irrigated production.	acre	Actual	19.48	Only applies to crop or pasture land uses where there is acreage that has been irrigated the previous 2 out of the last 5 years.	States need to develop suitable crop rotations, cultivars, and/or moisture capturing practices	No

Yellow = new activities
Blue = activities resulting from a combination of others

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NRCs Code	Eligible Land Use				Supplemental Payment Activity	Enhancement Description (See Job Sheet criteria for requirement details)			Max Actual Performance Points (Adjusted)	Conditions Where Enhancement Applies	Information States Need to Develop Prior to Signup	May Be Applicable on Land Adjacent to Eligible Land
CCR99	Crop				Resource-Conserving Crop Rotation	Resource-conserving crop rotation means a crop rotation that: 1) includes at least on resource conserving crop as determined by the State Conservationist; 2) reduces erosion; 3) improves soil fertility and till; 4) interrupts pest cycles; and 5) in applicable areas, reduces depletion of soil moisture or otherwise reduces the need for irrigation.	acre	System	16.18	Applies to all annually planted crop land use acres. The enhancement does not apply to permanent hayland, orchards, or vineyards.	States will need to identify acceptable resource conserving crop rotations	No
NRCs Code	Eligible Land Use				Special Project Activity	Special Project Description (See Job Sheet criteria for requirement details)			Max Actual Performance Points (Adjusted)	Conditions Where Enhancement Applies	Information States Need to Develop Prior to Signup	May Be Applicable on Land Adjacent to Eligible Land
FPP02	Crop	Pasture	range	Forest	On-Farm Pilot Projects	On-Farm Pilots showcase conservation activities that have proven environmental benefits, but have not been widely adopted in the local farm community. Participants select and agree to install, monitor and promote conservation activities (practices, components or management techniques) that have been identified by the NRCS State Conservationist as addressing specific resource needs.	acre	Actual	8.80	Applies to all crop, pasture, range or forest land use acres.	States will need to identify acceptable on-farm pilot projects and develop protocols as described in CPM508.82.	Yes
FRD01	Crop	Pasture	range	Forest	On-Farm Research and Demonstrations	On farm research and demonstration consists of the implementation of applied research projects on working farms to gather information and demonstrate the efficacy of the activity. The projects must fit within identified state priority topic areas.	acre	Actual	8.80	Applies to all crop, pasture, range or forest land use acres.	States will need to identify acceptable on-farm research projects and develop protocols as described in CPM508.82.	Yes
NRCs Code	Eligible Land Use				Bundle Name	Bundle Criteria	Units	Actual/System	Max Actual Performance Points (Adjusted)	Conditions Where Enhancement Applies	Information States Need to Develop Prior to Signup	May Be Applicable on Land Adjacent to Eligible Land
BCR06	Crop				Crop Technology Bundle #6 (Improves nutrient and pesticide application techniques and widen buffers)	This bundle of enhancement activities includes: AIR04-Use drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift; AIR07-GPS, targeted spray application (SmartSprayer), or other chemical application electronic control technology; WQL11-Precision application technology to apply nutrients; WQL13-High level IPM to reduce pesticide environmental risk; and one of the buffer widening enhancements ANM05, ANM07 or ANM32.	acre	System	63.80	Applies to all crop land use acres.		NA
BCR07	Crop				Crop Technology Bundle #7 (Addresses orchard and vineyard resource concerns)	This bundle of enhancement activities includes: AIR03-Replace burning of pruning, removals and other crop residues with non-burning alternatives; AIR04-Use of drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift; PLT15- Establish pollinator and/or beneficial insect habitat; SQL02-Continuous cover crops; and WQL13-High level IPM to reduce pesticide environmental risk.	acre	System	59.45	Applies only to acres of orchards and vineyards in the crop land use.		NA
BCR08	Crop				Crop Technology Bundle #8 (Reduces inputs, improve soil and water quality, benefit pollinators and beneficial insects)	This bundle of enhancement activities includes: ENR12-Use of legume cover crops as a nitrogen source; SOE04-Continuous no till; SQL02- Continuous cover crops; PLT15-Establish pollinator and/or beneficial insect habitat, and WQL13-High level IPM to reduce pesticide environmental risk.	acre	System	88.54	Applies to only total row crop land use acres.		NA
BFO06				Forest	Forest Bundle # 6 (Improves wildlife habitat and soil quality)	This bundle of enhancement activities includes: ANM27-Wildlife friendly fencing; ANM33-Riparian buffer, terrestrial and aquatic wildlife habitat; PLT05-Multi-story cropping, sustainable management of non-timber forest plants; PLT15-Establish pollinator and/or beneficial insect habitat; and PLT17-Creating forest opening to improve hardwood stands.	acre	System	32.70	Applies to all forest land use acres.		NA

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BPA06		Pasture		Pasture Grazing Bundle # 6 (Improves wildlife habitat)	This bundle of enhancement activities includes: ANM03-Incorporate Native Grasses and/or Legumes into 15% or more of herbage dry matter productivity; ANM05-Extending riparian forest buffers for water quality protection and wildlife habitat; WQL01-Biological suppression and other non-chemical techniques to manage brush, weeds and invasive species; WQL13-High level IPM to reduce pesticide environmental risk; and WQL18-Non-chemical pest management for livestock.	acre	System	56.26	Applies to all pasture land use acres.		NA
BPA07		Pasture		Pasture Grazing Bundle # 7 (Improves forage utilization)	This bundle of enhancement activities includes: ANM25-Stockpiling of forages to extend the grazing season; ANM26-Managing calving to coincide with forage availability; ANM29-On-farm forage based grazing system; PLT16-Intensive rotational grazing; and WQL07-Split nitrogen applications 50% after the crops/pasture emerge/green-up.	acre	System	56.73	Applies to all pasture land use acres.		NA
BPA08		Pasture		Pasture Grazing Bundle # 8 (Addresses all aspects of pasture management)	This bundle of enhancement activities includes: AIR04-Use drift reducing nozzles, low pressures, lower boom height, and adjuvants to reduce pesticide drift; ANM03-Incorporate native grasses and/or legumes into 15% or more of herbage dry matter productivity; ANM18-Retrofit watering facility for wildlife escape; PLT16-Intensive rotational grazing, and WQL07-Split nitrogen applications 50% after the crops/pasture emerge/green-up.	acre	System	52.64	Applies to all pasture land use acres.		NA
BRA05			Range	Range Grazing Bundle # 5 (Addresses multiple resource concerns)	This bundle of enhancement activities includes: ANM09-Grazing management to improve wildlife habitat; ANM26-Managing calving to coincide with forage availability; WQL01-Biological suppression and other non-chemical techniques to manage brush, weeds and invasive species; WQL03-Rotation of supplement and feeding areas; WQL13-High level IPM to reduce pesticide environmental risk.	acre	System	53.40	Applies to all range land use acres.		NA
BRA06			Range	Range Grazing Bundle # 6 (Improves wildlife habitat and water quality)	This bundle of enhancement activities includes ANM18-Retrofit watering facility for wildlife escape, ANM26-Managing calving to coincide with forage availability, ANM27-Wildlife friendly fencing, ANM29-On-farm forage based grazing system, and WQL01- Biological suppression and other non-chemical techniques to manage brush, weeds and invasive species.	acre	System	33.52	Applies to all range land use acres.		NA
BRA07			Range	Range Grazing Bundle # 7 (Addresses multiple resource concerns)	This bundle of enhancement activities includes: ANM26-Managing calving to coincide with forage availability; ANM29-On-farm forage based grazing system; PLT16-Intensive rotational grazing; WQL01- Biological suppression and other non-chemical techniques to manage brush, weeds and invasive species, and WQL13-High level IPM to reduce pesticide environmental risk.	acre	System	59.17	Applies to all range land use acres.		NA

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Code	Eligible Land Use				Practice Name	Practice Definition	Units	Actual/System	Max Actual Performance Points (Adjusted)
311	Crop	Pasture			Alley Cropping	Trees or shrubs are planted in sets of single or multiple rows with agronomic, horticultural crops or forages produced in the alleys between the sets of woody plants that produce additional products.	acre	Actual	8.30
314	Crop	Pasture	Range	Forest	Brush Management	Removal, reduction or manipulation of non-herbaceous plants on rangeland, native or naturalized pasture, pasture, hayland and forest lands where removal or reduction of excessive woody (non-herbaceous) plants is desired.	acre	Actual	5.04
328	Crop				Conservation Crop Rotation	Growing crops in a recurring sequence on the same field to control erosion, improve soil organic matter, balance nutrients, improve water use efficiency, manage saline seeps, manage pests and/or provide food and cover for wildlife	acre	System	9.98
329	Crop				Residue and Tillage Management, No-Till/Strip Till/Direct Seed	Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round while limiting soil-disturbing activities to only those necessary to place nutrients, condition residue and plant crops.	acre	System	11.72
338		Pasture	Range	Forest	Prescribed Burning	Controlled fire applied to a predetermined areas to maintain or enhance fire dependent ecologies.	acre	System	5.33
340	Crop				Cover Crop	The planting of crops such as grasses, legumes and forbs to provide seasonal cover that will reduce erosion, improve soil organic matter, promote efficient nutrient cycling, fix nitrogen in the soil, suppress weeds, increase biodiversity and/or provide food and cover for wildlife.	acre	System	12.13
342	Crop	Pasture	Range	Forest	Critical Area Planting	Establishment of permanent vegetation on sites that have or are expected to have high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.	acre	Actual	8.27
344	Crop				Residue Management, Seasonal	Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface during a specified period of the year, while planting annual crops on a clean-tilled seedbed, or when growing biennial or perennial seed crops.	acre	System	2.95
345	Crop				Residue and Tillage Management, Mulch Till	Managing the amount, orientation and distribution of crop and other plant residue on the soil surface year round while limiting the soil-disturbing activities used to grow crops in systems where the entire field surface is tilled prior to planting.	acre	System	9.45
346	Crop				Residue and Tillage Management, Ridge Till	Managing the amount, orientation, and distribution of crop and other plant residues on the soil surface year-round, while growing crops on pre-formed ridges alternated with furrows protected by crop residue.	acre	System	8.65
380	Crop	Pasture	Range		Windbreak/Shelterbelt Establishment	Windbreaks or shelterbelts are single or multiple rows of trees or shrubs in linear configurations to reduce surface wind speeds in order to control wind erosion, manage snow deposition, reduce the spread of odors, reduce pesticide spray drift and/or provide wildlife food and cover.	feet	Actual	12.71
382	Crop	Pasture	Range	Forest	Fence	A constructed barrier to animals or people.	feet	Actual	0.47
383		Pasture	Range	Forest	Fuelbreak	A strip or block of land on which the vegetation, debris and detritus have been reduced and/or modified to control or diminish the risk of the spread of fire crossing the strip or block of land.	acre	Actual	2.36
384				Forest	Forest Slash Treatment	Treating woody plant residues created during forestry, agroforestry and horticultural activities to reduce fire hazards, insect infestations and/or improve the site for natural regeneration.	acre	Actual	4.09
386	Crop				Field Border	A strip of permanent vegetation established at the edge or around the perimeter of a field to provide a buffer between cropland and non-cropped areas to reduce cropland impacts and provide wildlife food and cover.	acre	Actual	6.51

Note: the CPS allows an option for this practice's units to be "feet;" however, for CMT the practice's units are in ACRES.

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390	Crop	Pasture	Range		Riparian Herbaceous Cover	Grasses, grass-like plants and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats to provide a buffer between agricultural areas and riparian areas and to enhance riparian zone functions.	acre	Actual	9.32
391	Crop	Pasture			Riparian Forest Buffer	An area predominantly trees and/or shrubs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats to provide a buffer between agricultural areas and riparian areas and to enhance riparian zone functions.	acre	Actual	10.63
393	Crop				Filter Strip	A strip or area of herbaceous vegetation established on cropland that removes contaminants from overland flow.	acre	Actual	7.71
394		Pasture	Range	Forest	Firebreak	A permanent or temporary strip of bare or vegetated land established to retard the movement of fire.	feet	Actual	1.43
395	Crop	Pasture	Range	Forest	Stream Habitat Improve/Mgmt	Maintain, improve or restore physical, chemical and biological functions of a stream, and its associated riparian zone, necessary for meeting the life history requirements of desired aquatic species.	acre	System	5.66
449	Crop	Pasture			Irrigation Water Management	The process of determining and controlling the volume, frequency and application rate of irrigation water in a planned, efficient manner.	acre	System	8.70
484	Crop				Mulching	Applying plant residues or other suitable materials produced off site, to the land surface.	acre	System	8.03
511	Crop	Pasture			Forage Harvest Management	The timely cutting and removal of forages from the field as hay, green-chop or ensilage.	acre	System	4.22
512	Crop	Pasture			Pasture and Hay Planting	Establishing native or introduced forage species.	acre	Actual	9.60
528		Pasture	Range	Forest	Prescribed Grazing	Managing the harvest of vegetation with grazing and/or browsing animals in order to enhance or maintain good forage production and provide wildfire food and cover.	acre	System	9.72
550			Range		Range Planting	Establishment of adapted perennial vegetation such as grasses, forbs, legumes, shrubs and trees in order to establish a function range ecology.	acre	Actual	9.04
612	Crop			Forest	Tree/Shrub Establishment	Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration.	acre	Actual	11.59
614	Crop	Pasture	Range	Forest	Watering Facility	A permanent or portable device to provide an adequate amount and quality of drinking water for livestock and or wildlife.	no.	Actual	5.67
643	Crop	Pasture	Range	Forest	Restoration and Management of Rare and Declining Habitats	Restoring and managing rare and declining habitats and their associated wildlife species to conserve biodiversity.	acre	System	8.64
644	Crop	Pasture	Range	Forest	Wetland Wildlife Habitat Management	Retaining, developing or managing wetland habitat for wetland wildlife.	acre	System	6.24
645	Crop	Pasture	Range	Forest	Upland Wildlife Habitat Management	Provide and manage upland habitats and connectivity within the landscape for wildlife.	acre	System	6.85
647	Crop	Pasture	Range	Forest	Early Successional Habitat Development/Management	Manage early plant succession to benefit desired wildlife or natural communities by increasing plant community diversity.	acre	System	5.73
650	Crop	Pasture	Range		Windbreak/Shelterbelt Renovation	Replacing, releasing and/or removing selected trees and shrubs or rows within an existing windbreak or shelterbelt, adding rows to the windbreak or shelterbelt or removing selected tree and shrub branches.	feet	Actual	10.40
654	Crop			Forest	Road/Trail/Landing Closure and Treatment	The closure, decommissioning, or abandonment of roads, trails, and/or landings and associated treatment to enhance forest functions.	feet	Actual	4.50
655	Crop			Forest	Forest Trails & Landings	A temporary or infrequently used route, path or cleared area within a forest established to provide access to the forest while limiting damage to the forest.	acre	Actual	3.45
660	Crop			Forest	Tree/Shrub Pruning	The removal of all or part of selected branches, leaders or roots from trees and shrubs to improve forest health and functions.	acre	System	3.28
666	Crop			Forest	Forest Stand Improvement	The manipulation of species composition, stand structure and stocking by cutting or killing selected trees and understory vegetation to enhance forest health and functions.	acre	System	7.41

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