FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E199A	Applicable State Priority Resource Concern Category	Applicable State Priority Resource Concern Causes	X	X	X	X	X	X	CSP Comprehensive Conservation Plan	The Conservation Stewardship Program (CSP) Comprehensive Conservation Plan (CCP) – E199A is a conservation plan developed by a Technical Service Provider (TSP) that will assess and recommend conservation alternatives to address each State priority resource concern category (PRCC) on all land uses included in the operation where stewardship thresholds are not met at time of application nor by the end of the CSP contract and not addressed through current, written conservation plans.	No.	1	1	NA
E314A	PLANTS, ANIMALS	Plant Structure and Composition, Plant Pest Pressure; Terrestrial Habitat for Wildlife and Invertebrates			X	X	X		Brush management to improve wildlife habitat	Brush management is employed to create a desired plant community, consistent with the related ecological site steady state, which will maintain or enhance the wildlife habitat desired for the identified wildlife species. It will be designed to provide plant structure, density and diversity needed to meet those habitat objectives. This enhancement does not apply to removal of woody vegetation by prescribed fire or removal of woody vegetation to facilitate a land use change.	acre	10	5	NA
E315A	PLANTS, ANIMALS	Plant Productivity and Health, Plant Structure and Composition, Plant Pest Pressure			X	X	X		Herbaceous weed treatment to create desired plant communities consistent with the ecological site	Mechanical, chemical, or biological, herbaceous weed treatment will be used to control targeted, herbaceous weeds to create, release, or restore desired plant communities that are consistent with achievable, ecological site, steady state descriptions.	acre	5	5	NA
E327A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X		X	X	X	Conservation cover for pollinators and beneficial insects	Seed or plug nectar and pollen producing plants in non-cropped areas such as field borders, vegetative barriers, contour buffer strips, grassed waterways, shelterbelts, hedgerows, windbreaks, conservation cover, and riparian forest and herbaceous buffers.	acre	5	1	NA
E327B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X			X	X	Establish Monarch butterfly habitat	Seed or plug milkweed (Asclepias spp.), and high-value monarch butterfly nectar plants on marginal cropland, field borders, contour buffer strips, and similar areas.	acre	5	1	NA
E328C	SOIL	Sheet and Rill Erosion, Wind Erosion	X						Conservation crop rotation on recently converted CRP grass/legume cover	Implement a crop rotation management system on crop land acres that have recently converted from CRP grass/legume conservation cover to annual planted crops. Crop rotation minimizes disturbance resulting in a Soil Tillage Intensity Rating (STIR) less than 10 and reduces soil erosion from water and wind to below soil tolerance (T) level. The current NRCS wind and water erosion prediction technologies must be used to document the rotation, soil erosion estimate, and STIR calculations. *This enhancement is limited to acres where the conversion event took place not more than 2 years prior. Enhancement not applicable on hayland.	acre	1	5	NA
E328D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Leave standing grain crops unharvested to benefit wildlife	Implement a crop rotation which allows a portion of grain crops to be left in fields un-harvested to provide food and cover for wildlife during winter months.	acre	1	5	NA
E328E	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Soil health crop rotation	Implement a crop rotation which addresses all four principle components of soil health: increases diversity of the cropping system; maintains residue throughout the year; keeps a living root; and minimizes soil chemical, physical and biological disturbance. The rotation will include at least 4 different crop and/or cover crop types (crop types include cool season grass, warm season grass, cool season broadleaf, warm season broadleaf) grown in a sequence that will produce a positive trend in the Organic Matter (OM) sub factor value over the life of the rotation, as determined by the Soil Conditioning Index (SCI). The current NRCS wind and water erosion prediction technologies must be used to document the rotation and SCI calculations.	acre	1	5	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E328F	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Modifications to improve soil health and increase soil organic matter	Use of soil health assessment to evaluate impact of current conservation crop rotation in addressing soil organic matter depletion (primary assessment made in Year 1). Modifications to the crop rotation and/or crop management will be made as a result of the assessment results (adding a new crop and/or cover crop to the rotation; making changes to planting and/or tillage system, harvest timing of crops, or termination timing of cover crops). During Year 3 a follow up assessment will be completed to allow time for the modifications to show increased soil organic matter. Modified system must produce a positive trend in the Organic Matter (OM) sub factor value over the life of the rotation, as determined by the Soil Conditioning Index (SCI). The current NRCS wind and water erosion prediction technologies must be used to document the rotation and SCI calculations.	acre	1	5	NA
E328G	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Crop rotation on recently converted CRP grass/legume cover for soil organic matter improvement	Crop rotation on acres converted, no more than 2 years prior, from CRP grass/legume cover to annual crops. Diverse rotation with living roots and residue cover throughout year and minimal disturbance. Enhancement not applicable on hayland.	acre	1	5	NA
E328I	WATER	Nutrients Transported to Surface Water	X	X					Forage harvest to reduce water quality impacts by utilization of excess soil nutrients	Establish a forage crop (single species or mix) following a primary annual crop to take up excess soil nutrients. Select forage known to effectively utilize and scavenge nutrients. Forage shall be harvested for forage, but not be grazed or burned.	acre	1	1	NA
E328J	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Improved crop rotation to provide benefits to pollinators	Improve the existing crop rotation by adding pollinator friendly crops into the rotation. The crop rotation shall include a minimum of three different crops in a minimum five year crop rotation. Each year, the pollinator friendly crop will be planted on a minimum of 5% of cropland acres contained within the agricultural operation. Use of insecticides is limited for the pollinator friendly crop.	acre	1	5	NA
E328K	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Multiple crop types to benefit wildlife	Alternating crops in a systematic arrangement of strips across a field to provide diverse rotations of crops that provide wildlife food. At least two crops will be planted in adjacent strips a minimum of 0.5 acres in size.	acre	1	5	NA
E328L	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Leaving tall crop residue for wildlife	Fields may be harvested but must leave crop residue standing a minimum of 14 inches. Residue will be left through winter and into spring, providing valuable winter cover and forage for wildlife spanning late summer and through the following winter.	acre	1	5	NA
E328M	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Diversify crop rotation with canola or sunflower to benefit pollinators	Add canola or sunflower to existing crop rotation on minimum of 5% of cropland acres each year. No systemic pesticides allowed. Only pesticide application on canola or sunflower during pre-bloom and bloom following integrated pest management and industry best management practices.	acre	1	5	NA
E328O	SOIL, PLANTS	Sheet and Rill Erosion; Wind Erosion; Organic Matter Depletion; Compaction; Plant Pest Pressure; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Perennial grain crop conservation rotation	Establish a perennial grain crop as part of a rotation with two other crops. The crop rotation will reduce soil erosion (water and wind), improve soil health, improve soil moisture efficiency, and reduce plant pest pressures.	acre	1	5	NA
E328P	SOIL, WATER	Nutrients Transported to Surface Water	X						Low Nitrogen Requirement Annual Crop Rotation	Design a planned annual crop rotation which requires less average annual nitrogen fertilizer than the current (benchmark) crop rotation.	acre	1	5	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E329A	SOIL	Sheet and Rill Erosion; Wind Erosion	X						No till to reduce soil erosion	Establish no till system to reduce sheet and rill and wind erosion soil loss. Field(s) must have a soil loss at or below the soil tolerance (T) level for water and wind erosion for the crop rotation and a Soil Tillage Intensity Rating (STIR) of no greater than 10 for each crop in the planned rotation. The current NRCS wind and water erosion prediction technologies must be used to calculate soil loss and STIR.	acre	1	5	NA
E329B	AIR	Emissions of Particulate Matter (PM) and PM Precursors	X						No till to reduce tillage induced particulate matter	Establish no till system to reduce tillage induced particulate matter. Field(s) must have a soil loss at or below the soil tolerance (T) level for the crop rotation and a Soil Tillage Intensity Rating (STIR) of no greater than 10 for each crop in the planned rotation. The current NRCS wind and water erosion prediction technologies must be used to document soil loss and STIR calculations.	acre	1	5	NA
E329C	WATER	Inefficient Irrigation Water Use; Naturally Available Moisture Use	X						No till to increase plant-available moisture	Establish a no till system to increase plant-available moisture. Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 20. The current NRCS wind and water erosion prediction technologies must be used to document STIR calculations. Maintain a minimum 60 percent surface residue cover throughout the year to reduce evaporation from the soil surface.	acre	1	5	NA
E329D	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						No till system to increase soil health and soil organic matter content	Establish a no till system to increase soil health and soil organic matter content. Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 20. The crop rotation must achieve a soil conditioning index (SCI) of zero or higher. The current NRCS wind and water erosion prediction technologies must be used to document STIR and SCI calculations. Residue shall not be burned, grazed, or harvested.	acre	1	5	NA
E329E	ENERGY	Energy Efficiency of Farming/Ranching Practices and Field Operations	X						No till to reduce energy	Establish a no till system which reduces total energy consumption associated with field operations by at least 25% compared to current tillage system (benchmark). Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 20. The current NRCS wind and water erosion prediction technologies must be used to document STIR calculations and energy consumption.	acre	1	5	NA
E329F	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X	X					No-till into green cover crop to improve soil organic matter quantity and quality	Prepare fields using appropriate site preparation to establish a no till, planting green system to increase soil health and soil organic matter content. Planting green methods will be used to maximize the benefits of the cover crop by leaving the cover crop in place for an extended growing period. The current NRCS wind and water erosion prediction technologies must be used to document STIR and SCI calculations. The health of the soil will be monitored using the In-Field Soil Health Assessment and through a laboratory analysis.	acre	1	5	NA
E334A	SOIL	Compaction	X	X					Controlled traffic farming to reduce compaction	Establish a controlled traffic system where no more than 25% of the surface is tracked with heavy axel loads to minimize soil compaction. For row crops (e.g. corn in 30-inch rows) no tire should run on a row except for flotation tires on combines and/or fertilizer and lime spreading trucks. If wide flotation tires are used, they must be big enough that the inflation pressure will be below 18 psi to minimize compaction on trafficked rows.	acre	5	1	NA
E338A	PLANTS	Plant Pest Pressure, Wildfire Hazard from Biomass Accumulation			X	X			Strategically planned, patch burning for grazing distribution and wildlife habitat	Patch burn grazing is the application of prescribed fires on portions of an identified grazing unit at different times of the year. Patch burn grazing allows grazing animals to select where they want to graze creating a mosaic of vegetation structures and diversity that will maintain or enhance the wildlife habitat desired for the identified wildlife species and maintain livestock production.	acre	1	5	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E338B	PLANTS, ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates; Feed and Forage Imbalance				X			Short-interval burns to promote a healthy herbaceous plant community	The controlled use of fire is applied in a forest to restore fire-adapted plants while improving wildlife habitat, wildlife food supply, and reducing the risk of damage from intense, severe wildfires. The ideal interval between prescribed burns is not often achieved. To improve the effectiveness of prescribed burning, the frequency of prescribed burning is increased appropriately, for a specified time period, to help restore ecological conditions in forests and woodlands. Short return interval prescribed burning is used to regenerate desirable tree species, improve the condition of fire-adapted plants and native herbaceous vegetation, improve wildlife food supply, create wildlife habitat (snags and den/cavity trees), limit encroachment of competing vegetation including non-native species, and reduce the future risk of damage from intense, severe wildfires.	acre	1	5	NA
E338C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates				X			Sequential patch burning	Conduct prescribed burning beneath a forest canopy (ground fire), burning a portion of the area each year to create a mosaic of vegetation in several stages of development, to provide a more diverse understory and contribute to wildlife habitat. The health of conifer and oak-conifer forests, particularly longleaf pine with a characteristic herbaceous understory, is dependent on fire or another means of controlling encroaching woody vegetation. A healthy longleaf or shortleaf pine, or pine-oak forest, can support a wide array of wildlife including pollinators and several endangered or threatened species.	acre	1	5	NA
E340A	SOIL	Sheet and Rill Erosion; Wind Erosion	X	X					Cover crop to reduce soil erosion	Cover crop added to current crop rotation to reduce soil erosion from water and wind to below soil tolerance (T) level. Cover crops grown during critical erosion period(s). Species are selected that will have physical characteristics to provide adequate erosion protection.	acre	1	5	NA
E340B	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Intensive cover cropping to increase soil health and soil organic matter content	Implementation of cover crop mix to provide soil coverage during ALL non-crop production periods in an annual crop rotation. Cover crop shall not be harvested or burned. Planned crop rotation including cover crops and associated management activities must achieve a soil conditioning index (SCI) of zero or higher. The current NRCS wind and water erosion prediction technologies must be used to document SCI calculations.	acre	1	5	NA
E340C	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X	X	X				Use of multi-species cover crops to improve soil health and increase soil organic matter	Implement a multi-species cover crop to add diversity and increase biomass production to improve soil health and increase soil organic matter. Cover crop mix must include a minimum of 4 different species. The cover crop mix will increase diversity of the crop rotation by including crop types currently missing, e.g. Cool Season Grass (CSG), Cool Season Broadleaves (CSB), Warm Season Grasses (WSG), Warm Season Broadleaves (WSB).	acre	1	5	NA
E340D	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability		X					Intensive orchard/vineyard floor cover cropping to increase soil health	Implement orchard or vineyard floor cover crops. Cover crop shall not be harvested, grazed, or burned. Must achieve a soil conditioning index of zero or higher and produce a positive trend in the Organic Matter subfactor over the life of the rotation.	acre	1	5	NA
E340E	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X	X	X				Use of soil health assessment to assist with development of cover crop mix to improve soil health	Soil health assessment (year 1) to evaluate current crop rotation in addressing soil organic matter depletion. Results are utilized to select a multi-species cover crop mix to add to the current crop rotation. Follow up assessment completed (year 3).	acre	1	5	NA
E340F	SOIL	Compaction	X	X					Cover crop to minimize soil compaction	Establish a cover crop mix that includes plants with both fibrous root and deep rooted systems. Fibrous to treat and prevent both near surface (0-4") and deep (>4") soil compaction and deep rooted to break up deep compacted soils. Cover crop shall not be harvested, grazed, or burned.	acre	1	5	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E340G	WATER	Nutrients Transported to Surface Water; Nutrients Transported to Groundwater	X	X					Cover crop to reduce water quality degradation by utilizing excess soil nutrients	Establish a cover crop mix to take up excess soil nutrients. Select cover crop species for their ability to effectively utilize nutrients. Terminate the cover crop as late as practical to maximize plant biomass production and nutrient uptake. Cover crop shall not be harvested, grazed, or burned.	acre	1	5	NA
E340H	PLANT	Plant Pest Pressure	X	X					Cover crop to suppress excessive weed pressures and break pest cycles	Establish a cover crop mix to suppress excessive weed pressures and break pest cycles. Select cover crop species for their life cycles, growth habits, and other biological, chemical and/or physical characteristics. Select cover crop species that do not harbor pests or diseases of subsequent crops in the rotation. Cover crop shall not be harvested, grazed, or burned.	acre	1	5	NA
E340I	SOIL	Compaction	X						Using cover crops for biological strip till	Establish alternating strips of cover crops in which one strip acts as a biological strip-tiller and the adjacent strip promotes soil health with high residue cover crops. This will facilitate planting of the subsequent cash crop into the biologically strip-tilled row without the need for mechanical disturbance.	acre	1	5	NA
E345A	SOIL	Sheet and Rill Erosion; Wind Erosion	X						Reduced tillage to reduce soil erosion	Establish a reduced tillage system to reduce soil loss. Field(s) must have a soil loss at or below the soil tolerance (T) level for water and wind erosion for the crop rotation and a Soil Tillage Intensity Rating (STIR) of no greater than 40 for each crop in the planned rotation. The current NRCS wind and water erosion prediction technologies must be used to calculate soil loss and STIR.	acre	1	5	NA
E345B	AIR	Emissions of Particulate Matter (PM) and PM Precursors	X						Reduced tillage to reduce tillage induced particulate matter	Establish a reduced tillage system to reduce tillage induced particulate matter. Field(s) must have a soil loss at or below the soil tolerance (T) level for the crop rotation and a Soil Tillage Intensity Rating (STIR) of no greater than 40 for each crop in the planned rotation. The current NRCS wind and water erosion prediction technologies must be used to document soil loss and STIR calculations.	acre	1	5	NA
E345C	WATER	Inefficient Irrigation Water Use; Naturally Available Moisture Use	X						Reduced tillage to increase plant-available moisture	Establish a reduced till system to increase plant-available moisture. Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 80. The current NRCS wind and water erosion prediction technologies must be used to document STIR calculations. Maintain a minimum 60 percent surface residue cover throughout the year to reduce evaporation from the soil surface.	acre	1	5	NA
E345D	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Reduced tillage to increase soil health and soil organic matter content	Establish a reduced till system to increase soil health and soil organic matter content. Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 80. The crop rotation must achieve a soil conditioning index (SCI) of zero or higher and produce a positive trend in the Organic Matter (OM) subfactor over the life of the crop rotation. The current NRCS wind and water erosion prediction technologies must be used to document STIR and SCI calculations. Residue shall not be burned, grazed, or harvested.	acre	1	5	NA
E345E	ENERGY	Energy Efficiency of Farming/Ranching Practices and Field Operations	X						Reduced tillage to reduce energy use	Establish a reduced tillage system which reduces total energy consumption associated with field operations by at least 25% compared to conventional tillage systems (benchmark). Each crop in the crop rotation shall have a Soil Tillage Intensity Rating (STIR) of no greater than 80. The current NRCS wind and water erosion prediction technologies must be used to document STIR calculations and energy consumption.	acre	1	5	NA
E382A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X	X	X		Incorporating "wildlife friendly" fencing for connectivity of wildlife food resources	Retrofitting or constructing fences that provide a means to control movement of animals, people, and vehicles, but minimizes wildlife movement impacts.	ft	20	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E382B	SOIL	Plant productivity and Health, Plant Structure and Composition			X				Installing electrical fence offsets and wire to facilitate cross-fencing for improved grazing management	Retrofitting conventional fences such as barb wire, with new electrical offsets and electrical wire to facilitate cross-fencing for improved grazing management.	ft	20	1	NA
E386A	SOIL	Sheet and Rill Erosion; Wind Erosion	X	X			X		Enhanced field borders to reduce soil erosion along the edge(s) of a field	Enhance existing field borders to a width of at least 30 feet and establish a single species or mixture of species that provide a dense ground cover along the edge(s) of the field.	acre	10	1	NA
E386B	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X	X			X		Enhanced field borders to increase carbon storage along the edge(s) of the field	Enhance existing field borders to a width of at least 30 feet and establish a single species or mixture of species that provide a dense ground cover and dense rooting system along the edge(s) of the field.	acre	10	1	NA
E386C	AIR	Emissions of Particulate Matter (PM) and PM Precursors	X	X			X		Enhanced field borders to decrease particulate emissions along the edge(s) of the field	Enhance existing field borders to a width of at least 40 feet and establish a mixture of species that decrease the particulate emissions along the edge(s) of the field.	acre	10	1	NA
E386D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X			X		Enhanced field borders to increase food for pollinators along the edge(s) of a field	Enhance existing field borders to a width of at least 40 feet and establish a mixture of species that provide food for pollinators along the edge(s) of the field.	acre	10	1	NA
E386E	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X			X		Enhanced field borders to increase wildlife food and habitat along the edge(s) of a field	Enhance existing field borders to a width of at least 40 feet and establish a mixture of species that provide wildlife food and habitat along the edge(s) of the field. The extended field border will also provide enhanced wildlife habitat continuity.	acre	10	1	NA
E390A	WATER	Nutrients Transported to Surface Water; Sediment Transported to Surface Water	X	X					Increase riparian herbaceous cover width for sediment and nutrient reduction	Where an existing herbaceous riparian buffer is located along a river, stream, pond, lake, or other waterbody, increase the width of the buffer in order to allow a greater percentage of sediment and nutrient removal from surface and subsurface flows.	acre	5	1	NA
E390B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X		X	X	Increase riparian herbaceous cover width to enhance wildlife habitat	Where an existing herbaceous riparian buffer is located along a river, stream, pond, lake, or other waterbody, increase the diversity of native species, control invasive species, install fencing and relocate equipment operations, trails, and livestock, and increase the width of the buffer.	acre	5	1	NA
E391A	WATER	Nutrients Transported to Surface Water; Sediment Transported to Surface Water	X	X			X		Increase riparian forest buffer width for sediment and nutrient reduction	Where an existing forested riparian area is located along a river, stream, pond, lake, or other waterbody, increase the width of the buffer in order to allow a greater percentage of sediment and nutrient removal from surface and subsurface flows.	acre	15	1	NA
E391B	WATER	Elevated Water Temperature	X	X	X	X	X	X	Increase stream shading for stream temperature reduction	Riparian area tree canopy cover density is increased and the extent of the forested riparian area is increased to provide greater stream shading.	acre	15	1	NA
E391C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X		X	X	Increase riparian forest buffer width to enhance wildlife habitat	Where an existing riparian forest buffer is located along a river, stream, pond, lake, or other waterbody, increase the diversity of native species, control invasive species, install fencing and relocate equipment operations, trails, and livestock to increase the functional width of the buffer.	acre	15	1	NA
E393A	WATER	Nutrients Transported to Surface Water; Pathogens and Chemicals from Manure, Bio-solids or Compost Applications Transported to Surface Water	X	X			X		Extend existing filter strip to reduce water quality impacts	Extend existing filter strips for water quality protection. Extend the existing buffer for a total of 60 feet or more to enhance water quality functions. The extended buffers must be composed of at least 5 species of non-noxious, wildlife friendly grasses and/or perennial forbs best suited to site conditions. Include species that provide pollinator food and habitat where possible.	acre	10	1	NA
E395A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X		Stream habitat improvement through placement of woody biomass	Flexible placement of wood (unanchored/unpinned) in small, 1st and 2nd order streams to improve stream habitat conditions for aquatic species and natural stream processes.	acre	5	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E399A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Fishpond management for native aquatic and terrestrial species	Pond rehabilitation, buffer, and watershed management actions are taken to improve habitat for native species of fish, amphibians, and shorebirds.	acre	1	5	NA
E412A	WATER	Sediment Transported to Surface Water	X	X					Enhance a grassed waterway	Enhance grassed waterways for water quality protection (reduce excess sediment in surface waters). This is done by either changing the waterway size, protecting the current waterway, or improving the infiltration of the watershed of the grassed waterway to protect the waterway.	acre	10	1	NA
E420A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X		X	X	X	Establish pollinator habitat	Seed or plug nectar and pollen producing plants to establish or improve pollinator habitat. These areas may include, but are not limited to, field borders, vegetative barriers, contour buffer strips, shelterbelts, hedgerows, windbreaks, conservation cover, and riparian forest and herbaceous buffers.	acre	5	1	NA
E420B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X			X	X	Establish monarch butterfly habitat	Seed or plug milkweed (Asclepias spp.) and high-value monarch butterfly nectar plants to establish or improve monarch habitat. These areas may include, but are not limited to, field borders, vegetative barriers, contour buffer strips, shelterbelts, hedgerows, windbreaks, conservation cover, and riparian forest and herbaceous buffers.	acre	5	1	NA
E449A	WATER	Inefficient Irrigation Water Use	X	X	X		X	X	Complete pumping plant evaluation for water savings	Evaluation of all pumping plants to determine the potential to rehabilitate/replace/reconfigure pump performance to improve water delivery efficiency 10% or more.	No	1	1	NA
E449C	WATER	Inefficient Irrigation Water Use	X	X	X				Advanced Automated IWM – Year 2-5, soil moisture monitoring	Advanced automated irrigation water management using soil moisture or water level monitoring (installed as per IWM plan) with data loggers.	acre	1	5	NA
E449D	WATER	Inefficient Irrigation Water Use	X	X	X				Advanced Automated IWM – Year 1, Equipment and soil moisture or water level monitoring	Installing and monitoring soil moisture or water leveling equipment for advanced automated irrigation water management	acre	1	1	NA
E449F	WATER	Inefficient Irrigation Water Use	X	X	X				Intermediate IWM— Year 1, Equipment with Soil or Water Level monitoring	This activity involves monitoring soil moisture or water levels within a irrigated field for intermediate irrigation water management include installation of equipment year 1.	acre	1	1	NA
E449G	WATER	Inefficient Irrigation Water Use	X	X	X				Intermediate IWM— Years 2-5, Soil or Water Level monitoring	Field currently flooded through a cascade levee system will be converted to furrow irrigation. It is required that field is leveed on the lower end and approximately 25% up the sides for furrow irrigation prior to implementing the enhancement. After the previous year's crop is harvested, elevated planting beds and furrows will be reshaped as needed to guarantee proper irrigation of the rice crop. Layflat tubing will be utilized with the correct holes or gates installed to advance water down the furrows at the appropriate rate across the length of the field as prescribed by an NRCS "PHAUCET" design, Delta Plastic® Pipe Planner® or similar.	acre	1	5	NA
E449H	WATER	Inefficient Irrigation Water Use	X	X					Intermediate IWM— Years 2 -5, using soil moisture or water level monitoring	Monitoring soil moisture or water levels within an irrigated field for implementing an intermediate irrigation water management plan using soil moisture data to facilitate management decisions.	acre	1	5	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E449I	WATER	Inefficient Irrigation Water Use	X	X					IWM - Year 1, Retrofit Equipment with Speed Control on Sprinkler Irrigation System	This enhancement consists of retrofitting an existing sprinkler irrigation system to integrate variable rate irrigation (VRI) speed control where the technology is not present. The added functionality of VRI speed control equipment allows for enhanced water application precision, efficiency, and uniformity along the length of the sprinkler irrigation system by varying the irrigation system speed within the irrigation pass. Renovation of the existing sprinkler irrigation system utilizing this enhancement includes the installation of an upgraded control panel capable of speed control programming and global positioning system (GPS) technology capable of providing real-time field position. Utilization of the VRI speed control and GPS equipment will be for the entire irrigation season and be based on spatially identified parameters such as variations in past yield data, soils, crop growth, topography, or computerized irrigation scheduling recommendations. This scenario requires that the existing sprinkler irrigation system meets Conservation Practice Standard (CPS) 442 uniformity and efficiency requirements. System equipment is installed in year 1 with this scenario and scenario E449G or E449C is used in years 2-5.	acre	1	1	NA
E449J	WATER	Inefficient Irrigation Water Use	X	X					Intermediate IWM – 20% Reduced Water usage	Intermediate irrigation water management involves monitoring soil moisture or water levels within an irrigated field by utilizing technological equipment to gather field specific data concerning weather, soil moisture or water levels throughout the irrigation season. The equipment will be utilized to log data through the season to be retrieved periodically so irrigation decisions can be made based on scientific data. Maximum time between data retrieval is weekly. Monitoring will be for the entire irrigation season and data gathered will be used to make sound decisions on irrigation water use. Supplemental water usage will be reduced by 20% and remain at that level for the remainder of the contract.	acre	1	1	NA
E472A	WATER	Nutrients transported to surface water, Pathogens and chemicals from manure, bio-solids or compost applications transported to surface water	X	X	X	X	X	X	Manage livestock access to waterbodies to reduce nutrients or pathogens to surface water	Installation of structures and implementation of grazing management actions that restrict livestock access to waterbodies in order to reduce nutrient loading or reduce the introduction of pathogens from manure, bio-solids or compost to surface waters.	ft.	10	1	NA
E484A	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Mulching to improve soil health	Implement a crop rotation which utilizes mulch and addresses all four principle components of soil health: increases diversity of the cropping system; maintains residue throughout the year; keeps a living root; and minimizes soil chemical, physical and biological disturbance. Plant-based mulching materials will be applied at least once during the rotation. The rotation will include at least 4 different crops and/or cover crops grown in a sequence that will produce a positive trend in the Organic Matter (OM) subfactor value over the life of the rotation, as determined by the Soil Conditioning Index (SCI). The current NRCS wind and water erosion prediction technologies must be used to document the rotation and SCI calculations.	acre	1	5	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E484B	AIR	Emissions of Particulate Matter (PM) and PM Precursors		X					Reduce particulate matter emissions by using orchard or vineyard generated woody materials as mulch	Reduce particulate matter emissions by using orchard or vineyard generated woody materials as mulch. At least 90% of all woody materials are to be used as mulch on the operation. An exception may be made when it is determined that infected material must be burned to preserve crop health.	acre	1	5	NA
E484C	PLANTS	Plant Pest Pressure	X	X					Mulching with natural materials in specialty crops for weed control	Application of straw mulch or other state approved natural material (such as wood chips, compost, green chop, dry hay or sawdust) for weed control in specialty crops.	Acre	1	5	NA
E511A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X				Harvest of crops (hay or small grains) using measures that allow desired species to flush or escape	Harvest of crops (hay or small grains) using conservation measures that allow desired species to flush or escape. (For species list see State Wildlife Action Plan for species list) Conservation measures include timing of harvest, idling land during the nesting or fawning period, and applying harvest techniques that reduce mortality to wildlife.	acre	1	5	NA
E511B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X				Forage harvest management that helps maintain wildlife habitat cover, shelter or continuity	The timely cutting and removal of forages from the field as hay, green chop, or ensilage in such a way, and in time frames, to optimize both forage yield/quality and wildlife cover and shelter and/or continuity between otherwise disconnected habitats.	acre	1	5	NA
E511C	ANIMALS, PLANTS	Feed and Forage, Plant Productivity and Health, Structure and Composition		X	X				Forage testing for improved harvesting methods and hay quality	Dry hay forage samples are collected and analyzed following LGU procedures. Analysis results are kept and used to improve harvest decisions to guide forage supplementation of on-farm livestock to meet nutritional needs and improve health and productivity.	each	1	5	NA
E511D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates		X					Forage harvest management to improve terrestrial habitat for wildlife and invertebrates during critical over-winter periods	Eliminate or forgo the last fall cutting of hay or haylage to optimize wildlife cover and shelter during critical over-winter periods and lengthen late season bloom period for invertebrates. Allowing late season stand maturity increases stand life and reduces risks of frost and winter damage while providing valuable wildlife habitat and extended bloom periods.	each	1	5	NA
E512A	SOIL	Sheet and Rill Erosion; Wind Erosion	X	X					Cropland conversion to grass-based agriculture to reduce soil erosion	Conversion of cropped land to grass-based agriculture to reduce soil erosion. Mixtures of perennial grasses, forbs, and legume species are established on cropland where annually-seeded cash crops have been grown.	acre	5	1	YES
E512B	SOIL	Sheet and Rill Erosion			X				Forage plantings that help increase organic matter in depleted soils	Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay, or biomass production that can provide for reduced soil erosion, improving soil health.	acre	5	1	NA
E512C	SOIL	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X	X					Cropland conversion to grass for soil organic matter improvement	Conversion of cropped land to grass-based agriculture. Mixtures of perennial grasses, forbs, and/or legume species are established on cropland where annually-seeded cash crops have been grown.	acre	5	1	YES
E512D	SOIL	Organic Matter Depletion	X	X	X				Forage plantings that help increase organic matter in depleted soils	Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay, or biomass production that can help improve soil quality of depleted sites through increase or conservation of the organic matter in the soil.	acre	5	1	NA
E512I	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X		X	X	Establish pollinator and/or beneficial insect and/or monarch habitat	Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species that can provide nectar for Monarch butterflies and/or pollinators and forage and other habitat values for wildlife and livestock, particularly at times when targeted nectar, forage supply and quality, cover, and shelter are not available in other pastures.	acre	5	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E512J	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X		X	X	Establish wildlife corridors to provide habitat continuity or access to water	Establishing adapted and/or compatible species, varieties, or cultivars of perennial, herbaceous species that can provide cover needed for wildlife species of concern to move from food/cover/water sources to other food/cover/water sources as needed for their life cycles, and/or to enhance the utility of underused wildlife habitat areas.	acre	5	1	NA
E512L	ANIMALS	Feed and Forage Imbalance			X		X		Diversifying forage base with interseeding forbs and legumes to increase pasture quality	Establishing adapted and/or compatible species, varieties, or cultivars of perennial, herbaceous species that increases the diversity to enhance livestock, forage supply and quality not available in other pastures.	acre	5	1	NA
E512M	PLANTS AND ANIMALS	Plant Structure and Composition, Terrestrial Habitat for Wildlife and Invertebrates			X		X		Establishing native grass or legumes to improve the plant community	Establishing adapted and/or compatible species, varieties or cultivars species suitable for pasture, hay or biomass production that can provide cover and shelter or structure and composition for wildlife	acre	5	1	NA
E528A	ANIMALS	Feed and Forage Imbalance			X	X	X		Maintaining quantity and quality of forage for animal health and productivity	Managing the harvest of vegetation with grazing and/or browsing animals for the purposes of maintaining desired pasture composition/plant vigor and improving/maintaining quantity and quality of forage for the animals' health and productivity following the recommendations of a qualifying professional, as detailed in the documentation and implementation requirements.	acre	1	5	NA
E528B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X	X			Grazing management that improves monarch butterfly habitat	Implement a grazing management plan that will increase the abundance and diversity of monarch nectar-producing perennial forbs, including milkweed, while maintaining ecosystem benefits for other wildlife and livestock.	acre	1	5	NA
E528C	ANIMALS	Feed and Forage Imbalance, Terrestrial Habitat for Wildlife and Invertebrates			X	X			Incorporating wildlife refuge areas in contingency plans for wildlife.	A prescribed grazing plan that includes 12 month (or longer) rest (non-grazing period equal or greater than one year) of a grazing unit that consists of native grasses and/or legumes and/or perennial forbs for the purpose of meeting the needs for drought/disaster contingency plans that will also provide wildlife habitat or wildlife access to water for a period of time.	acre	1	5	NA
E528D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X	X			Grazing management for improving quantity and quality of food or cover and shelter for wildlife	Grazing management employed will provide the plant structure, density and diversity needed for improving the quantity and quality of cover, shelter and food for the desired wildlife species of concern.	acre	1	5	NA
E528E	PLANTS	Plant Structure and Composition, Terrestrial Habitat for Wildlife and Invertebrates			X	X	X		Improved grazing management for enhanced plant structure and composition for wildlife	Managing the harvest of vegetation with grazing and/or browsing animals for the purpose of improving the quantity and quality of the structure and composition of the plant community that is available for wildlife.	acre	1	5	NA
E528F	PLANTS	Plant Productivity and Health, Plant Structure and Composition	X	X	X		X		Stockpiling cool season forage to improve structure and composition or plant productivity and health	Grazing management employed to stop grazing events of selected paddock(s) to allow pasture forages to grow to maximum vegetative biomass accumulation before the end of the growing season.	acre	1	5	NA
E528G	PLANTS	Plant Productivity and Health			X				Improved grazing management on pasture for plant productivity and health with monitoring activities	Managing the harvest of vegetation with grazing and/or browsing animals as adjusted when following recommendations of a qualifying professional, as detailed in the enhancement criteria, generated through pasture condition scoring (PCS).	acre	1	5	NA
E528H	WATER	Elevated Water Temperature			x	x			Prescribed grazing to improve/maintain riparian and watershed function-elevated water temperature	Grazing management employed will provide cover and density needed in the watershed in order to reduce runoff, improve infiltration, provide for above ground water filtration and sustain applicable fish and wildlife species habitat.	acre	1	5	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E528I	WATER	Nutrients transported to surface water, Nutrients transported to ground water			X				Grazing management that protects sensitive areas -surface or ground water from nutrients	Grazing management employed will provide cover and density needed in the watershed in order to protect sensitive areas such as sinkholes, streams, highly erodible areas, or locations with plants that cannot tolerate defoliation.	acre	1	5	NA
E528J	WATER	Nutrients transported to surface water, Pathogens and chemicals from manure, bio-solids or compost applications transported to surface water, Sediment transported to surface water			x				Prescribed grazing on pastureland that improves riparian and watershed function.	Grazing management employed will provide cover and density needed in the watershed in order to reduce runoff, improve infiltration, provide for above ground water filtration and sustain applicable fish and wildlife species habitat.	acre	1	5	NA
E528L	SOIL	Bank erosion from streams, shorelines or water conveyance channels			X	X			Prescribed grazing that improves or maintains riparian and watershed function-erosion	Grazing management employed will provide cover and density needed in the watershed in order to reduce runoff, improve infiltration, provide for above ground water filtration and sustain applicable fish and wildlife species habitat.	acre	1	5	NA
E528M	SOIL	Classic Gully Erosion			X				Grazing management that protects sensitive areas from gully erosion	Grazing management employed will provide vegetative cover and density needed in the watershed in order to protect sensitive areas such as sinkholes, streams, highly erodible areas, or locations that cannot tolerate plant defoliation.	acre	1	5	NA
E528O	ANIMAL, PLANT	Feed and Forage Imbalance, Plant productivity and health			X				Clipping mature forages to set back vegetative growth for improved forage quality	Plant maturity is the most important factor that determines forage quality. Timely clipping through mowing, swathing or some other mechanical cutting will occur on grazing lands after plants mature. This enhancement will promote increased forage palatability by setting forages that have matured back to a vegetative state for improved grazing management and forage quality.	acre	1	5	NA
E528P	SOIL, WATER	Pathogens and chemicals from manure, bio-solids or compost applications transported to surface water, Nutrients transported to surface water, Organic Matter Depletion	X	X	X				Implementing Bale or Swath Grazing to increase organic matter and reduce nutrients in surface water	Improve organic matter, aggregate stability and soil organism habitat in the soil by leaving the biomass harvested from the field on site for animal use, or supplementing organic matter needs with off-field forages. Grazing harvested forages in this manner, will help to incorporate organic matter, feed and diversify the soil microbiome, build better aggregation and increase soil health and critical functions such as infiltration, nutrient cycling, and weather resilience. Forages should be placed evenly throughout the field, but can be concentrated in areas where particular concerns, such as bare ground, need to be remedied. Decisions of forage placement must take into account areas that would be sensitive to such activity such as protecting surface waters from nutrients or steep slopes from erosion.	acre	1	5	NA
E528Q	ANIMALS	Feed and Forage Imbalance	X	X	X	X	X	X	Use of body condition scoring for livestock on a monthly basis to keep track of herd health	Body condition scoring (BCS) serves as a useful management tool to monitor livestock performance with respect to current and recent feeding or grazing programs. Body condition scoring is a numeric scoring system, producers can use to consistently evaluate animals' estimated body energy reserves through degree of fatness. This information can be used to adjust nutritional strategies to reach optimal BCS. Since body condition is closely associated with reproductive performance as well as feed efficiency, monitoring body condition can help producers reach production goals and increase the operation's bottom line. Knowledge and understanding of BCS will assist producers to adjust a supplemental feeding program to maintain animal health and nutrition on a-monthly-basis.	acre	1	5	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E528R	PLANTS	Plant Productivity and Health, Plant Structure and Composition			X				Management Intensive Rotational Grazing	Management intensive, multi-paddock grazing system where livestock are regularly and systematically moved to fresh forage to optimize quantity and quality of forage growth, improve manure distribution, improve wildlife cover, and improve soil health.	acre	1	5	NA
E528S	SOIL	Organic Matter Depletion			X				Soil Health Improvements on Pasture	Use of soil health assessment to evaluate impact of planned grazing in addressing organic current conservation crop rotation in addressing soil organic matter depletion, soil organism habitat and aggregate instability. Laboratory soil health tests will be completed in year 1 and year 4 of the contract. Planned modifications to the pasture forages and/or management system will be made to the benchmark grazing system to address concerns from the assessments. During sample collection, Pasture Condition Score (PSC) or Determining Indicators of Pasture Health (DIPH) assessment will be completed for the sample area.	acre	1	5	NA
E528U	ANIMAL, PLANT	Feed and forage imbalance, Plant productivity and health	X	X	X	X			Contingency Planning for Resiliency	Develop and implement detailed contingency plans that address major disturbances (drought, fire, flooding, insect infestations, etc.) for grazing lands on the operation. Incorporate drought or other weather forecasting tools and agency approved climate projections within the contingency plans. Incorporate resilience building techniques in the grazing plan to mitigate effects of major disturbances.	no	1	1	NA
E533A	WATER	Inefficient Irrigation Water Use	X	X	X				Advanced Pumping Plant Automation	This enhancement consists of installing a control device to a pump station that allows the user to remotely monitor and operate the pump station based on field measured data. Pumping stations may have either a combustible or electric power unit that are compatible with the control device or sensor. These devices/sensors collect field-measured data and provide this data in real time to the landowner to make irrigation decisions and adjustments to the pump operation	No	1	1	NA
E533B	ENERGY	Energy Efficiency of Equipment and Facilities	X	X	X		X	X	Complete pumping plant evaluation for energy savings	Evaluation of all pumping plants to determine the potential to rehabilitate/replace/reconfigure pump performance to reduce energy use. Evaluate to determine if a Variable Frequency Drive motor controller(s) will reduce energy use and is feasible.	No	1	1	NA
E533C	AIR	Energy Efficiency of Equipment and Facilities	X	X	X		X	X	Install variable frequency drive(s) on pump(s)	Install Variable Frequency Drive(s) (VFD) on Pumping Plant (Conservation Practice Standard CPS 533) with the correct sensors, on all pumps indicated in the evaluation.	No	15	1	NA
E533D	ENERGY	Energy Efficiency of Equipment and Facilities	X	X	X		X	X	Switch fuel source for pumps	Switch the fuel source for the pump motor(s) to an on-farm renewable source (wind, solar, geothermal, etc.)	No	15	1	NA
E570A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X			X	X	Enhanced rain garden for wildlife	Seed or plug nectar and pollen producing plants into rain gardens to provide wildlife habitat.	sq. ft.	1	1	NA
E578A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Stream crossing elimination	Existing stream crossings on an operation are consolidated into fewer crossings in order to reduce impacts to stream habitat.	no	10	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E580A	SOIL	Streambank, Shoreline, Water Conveyance Channels	X	X	X	X	X	X	Stream corridor bank stability improvement	Stream corridor bank vegetation components are established to provide additional streambank stability.	acre	20	1	NA
E580B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Stream corridor bank vegetation improvement	Stream corridor bank vegetation components are established to improve ecosystem functioning and stability.	acre	20	1	NA
E590A	WATER; AIR	Nutrients Transported to Surface Water; Nutrients Transported to Ground Water; Emission of Greenhouse Gases (GHGs)	X	X					Improving nutrient uptake efficiency and reducing risk of nutrient losses	Nutrient management encompasses managing the amount, source, placement, and timing of the application of plant nutrients and soil amendments. Nutrients are currently being applied on the farm based on the 4R nutrient stewardship principles. Enhanced nutrient use efficiency strategies or technologies are utilized to improve nutrient use efficiency and reduce risk of nutrient losses to surface and groundwater and reduce risks to air quality by reducing emissions of greenhouse gases (GHGs).	acre	1	5	NA
E590B	WATER	Nutrients Transported to Surface Water; Nutrients Transported to Ground Water	X	X					Reduce risks of nutrient loss to surface water by utilizing precision agriculture technologies	Precision application technology and techniques are utilized to plan and apply nutrients to improve nutrient use efficiency and reduce risk of nutrient losses.	acre	1	5	NA
E590C	WATER	Nutrients Transported to Surface Water; Nutrients Transported to Ground Water			X				Improving nutrient uptake efficiency and reducing risk of nutrient losses on pasture	Nutrient management encompasses managing the amount, source, placement, and timing of the application of plant nutrients and soil amendments. Nutrients are currently being applied on the farm based on the 4R nutrient stewardship principles. Enhanced nutrient use efficiency strategies or technologies are utilized to improve nutrient use efficiency and reduce risk of nutrient losses on pasture.	acre	1	5	NA
E590D	WATER	Nutrients Transported to Surface Water; Nutrients Transported to Ground Water	X	X					Reduce risks of nutrient losses to surface and groundwater by increasing setback awareness via precision technology	Utilize precision technology to increase Soil/Groundwater Setbacks & Associated Application Rate Restrictions (SGS&AARR) implementation during nutrient application by providing precise, real-time location information (geo-located) in the field to the equipment operator. While operating nutrient application equipment, the operator's location is continually updated and displayed on an integrated, in-cab or add-on GPS-enabled device visible to the operator at all times to reduce the risk of nutrient application in setback and/or sensitive areas. This allows the equipment operator to manually turn off or steer equipment to avoid applying nutrients in setback or sensitive areas.	acre	1	5	N/A
E595A	WATER	Pesticides Transported to Surface Water	X	X					Reduce risk of pesticides in surface water by utilizing precision pesticide application techniques	Utilize precision application techniques to reduce risk of pesticides in surface water by reducing total amount of chemical applied and reducing the potential for delivery of chemicals into water bodies.	acre	1	5	NA
E595B	WATER, AIR	Pesticides Transported to Surface Water; Emissions of Ozone Precursors Pesticides	X	X	X				Reduce risk of pesticides in water and air by utilizing IPM PAMS techniques	Utilize integrated pest management (IPM) prevent, avoidance, monitoring, and suppression (PAMS) techniques to reduce risk of pesticides in water and air. Reduce the potential for delivery of chemicals into water or ozone precursor emissions.	acre	1	5	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E595D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Increase the size requirement of refuges planted to slow pest resistance to Bt crops	Bacillus thuringiensis (Bt) plant incorporated protectants are plants that have been genetically altered to produce proteins that are harmful to certain insect pests. Widespread implementation of Bt crops has decreased insecticide use and increased crop yields, but it must be used as part of an integrated pest management (IPM) approach to protect the crop from pest species that are not susceptible to the Bt toxin and to manage pest resistance. Crop rotation, scouting and resistance management strategies, such as planting and creating refuges of non-Bt crops, are essential when farming Bt crops. Insects have developed resistance to Bt proteins. To mitigate the development of further resistance, growers are required to plant refuges of non-transgenic crops. These refuges produce numbers of susceptible insects that will help sustain populations of non-resistant insects. The size of Refuge requirement depends on the environment, pest and strain of the crop. Size of refuge is determined by resistance risk. Most Bt corn requires that 20% of the total Bt crop planted be non-Bt. Cotton can require 50% of the crop be planted to non-Bt. A recent study published in the Journal of Integrated Pest Management revealed, compliance has been a challenge. Nearly 40% of growers surveyed did not plant the required refuge (Reisig 2017). They credit non-compliance, in part, to lack of understanding by small-scale farmers about the need for refuges.	acre	1	5	NA
E595E	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates			X				Eliminate use of chemical treatments to control pests and to increase the presence of dung beetles	Pests and parasites can have a significant impact on the economic viability of livestock operations, by affecting the performance and health of animals. The use of broad-spectrum insecticides, pour-ons and avermectins have been shown to have a detrimental effect on dung beetle populations. Having a healthy population of dung beetles facilitates the recycling of nutrients and promotes soil and grassland health. By eliminating the application of broad-spectrum insecticides, pour-ons, and avermectins, including injectable avermectins, for pest control in and on livestock along with rotational grazing and higher stock densities has shown to increase the dung beetle population. Use of natural or alternative methods of pest control over multiple years is encouraged.	acre	1	5	NA
E595F	ANIMALS	Reduce Pest Pressure, Soil Organism Habitat Loss or Degradation	X		X				Improving soil organism habitat on agricultural land	To reduce or eliminate the use of neonicotinoid seed treatment in corn and soybean cropping systems to promote beneficial predatory insect populations as a means of biological pest control. Beneficial insects such as the Carabidae beetle have been found to be very important in the population control of common agricultural pests such as grey garden slug, a pest that has increasingly been an issue in no-till and heavily cover cropped fields. Slugs being mullosks, can ingest neonicotinioids with no adverse affects, while beneficial predators that may consume slugs will die as soon as they consume a slug with prior seed coat exposure.	acre	1	5	NA
E595G	ANIMALS	Plant Pest Pressure	X	X					Reduce resistance risk by utilizing PAMS techniques	Utilize integrated pest management (IPM) prevention, avoidance, monitoring, and suppression (PAMS) techniques to reduce pesticide resistance and address plant pest pressure.	acre	1	5	NA
E612B	AIR	Emission of Greenhouse Gases (GHGs)				X			Planting for high carbon sequestration rate	Plant tree species and/or shrubs to sequester and store carbon. Forest stands will be managed for longer rotations and/or enhanced composition diversity to improve carbon storage.	acre	15	1	YES

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E612C	PLANTS, ANIMALS	Plant Productivity and Health; Plant Structure and Composition Terrestrial Habitat for Wildlife and Invertebrates				X			Establishing tree/shrub species to restore native plant communities	Establish trees and/or shrubs to restore elements of plant communities and diversity that have been lost. Restoring stand-level diversity and function improves health and vigor through planting resilient and/or resistant native plant communities. Additional benefits include providing diversity in wildlife habitat and forage.	acre	15	1	NA
E612D	PLANTS, ANIMALS	Plant Structure and Composition Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Adding food-producing trees and shrubs to existing plantings to an agroforestry system	Plant food-producing trees and shrubs for wildlife or human consumption within windbreaks, alley cropping, multi-story cropping, silvopasture systems, and/or riparian forest buffers.	acre	15	1	NA
E612E	PLANTS	Plant Structure and Composition				X	X	X	Cultural plantings	Plant trees and shrubs that are of cultural significance, such as those species utilized by Tribes in traditional practices, medicinal plants, species used in basket-making, etc. (e.g., paper birch, slippery elm, witch hazel).	acre	15	1	NA
E612F	PLANTS, ANIMALS	Plant Structure and Composition Terrestrial Habitat for Wildlife and Invertebrates				X			Sugarbush management	Establish or maintain tree/shrub species diversity in a sugar maple (Acer saccharum) stand to enhance pollinator and wildlife needs.	acre	15	1	NA
E612G	PLANTS, ANIMALS	Plant Structure and Composition Terrestrial Habitat for Wildlife and Invertebrates				X	X		Tree/shrub planting for wildlife food	Tree/shrub planting will provide the plant diversity, structure, and composition needed to enhance habitat and forage for identified wildlife species.	acre	15	1	YES
E643A	PLANTS	Plant Structure and Composition				X			Restoration of sensitive coastal vegetative communities	Enhance the level of restoration in unique and diminishing coastal ecosystems by establishing native herbaceous and woody plants. Protect established vegetation, and manage to maintain floristic quality and the provision of environmental services. This enhancement is applied on unique areas with rare and declining habitat conditions, where vegetation has been detrimentally altered by human or natural events. Targeted sites are those that formerly supported vegetative communities that are now declining and/or becoming rare. The sites will vary across the continent. The enhancement will expand and elevate the process of restoring these unique areas, increasing their ecological value and benefits to wildlife. It re-establishes a select group of trees and/or shrubs that are key components in this ecosystem.	acre	5	1	NA
E643B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates				X			Restoration and management of rare or declining habitat	Provide protection from adverse environmental conditions to create refugia for documented occurrences of sensitive plant communities.	acre	5	1	NA
E643C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates				X	X		Restore glade habitat to benefit threatened and endangered species and state species of concern	Restore Glade natural communities as shown by the Ecological Site Description to conserve biodiversity. Enhancement requires reducing woody canopy cover and applying at least one prescribed fire to treated acres. Restoration of glade communities provide habitat for rare and declining species. Sites that previously or currently support the rare and declining habitat will be targeted for restoration.	acre	5	1	NA
E643D	ANIMALS	Aquatic habitat for fish and other organisms Terrestrial habitat for wildlife and invertebrates			X	X	X		Low-tech process-based restoration to enhance floodplain connectivity	Beaver Dam Analogues (BDAs) and/or Post-Assisted Log Structures (PALS) are low-tech structures used to facilitate process-based restoration of rare and declining 'Stage 0' stream conditions. These structures are used to mimic, promote, and sustain the natural processes of beaver dam activity and wood accumulation that lead to more fully connected floodplains. BDAs and PALS are hand-built with a mixture of woody debris and on-site soils and vegetation. This enhancement is intended primarily to kick-start natural ecological, geomorphic, and hydrologic processes required for maintenance of healthy and functioning streams and associated floodplains.	no.	1	3	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E644A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X				Managing Flood-Irrigated Landscapes for Wildlife	Developing and implementing a conservation plan that supports maintenance of flood-irrigation in key landscapes to provide important foraging habitat for local breeding and migratory waterfowl and waterbirds.	acre	1	5	NA
E645A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Reduction of attractants to human-subsidized predators in sensitive wildlife species habitat	Reduction of artificial perching sites, nest sites, food, and water available to subsidized predators in areas where human-subsidized predators are a threat to sensitive wildlife species. Human-subsidized predators may include ravens, crows, magpies, coyotes, foxes, skunks, raccoons, and other species. Activities under this enhancement may include removal of non- native or invasive trees; removal of unused power poles, corrals, windmills, buildings, and other vertical structures; and/or removal or management of watering facilities, dead livestock, road kill, garbage, animal feed, dumps, and other non-natural food sources.	No	1	1	NA
E645B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Manage existing shrub thickets to provide adequate shelter for wildlife	Existing shrub thickets provide an instant and important cover for wildlife. Various wildlife species may use shrubs as winter/thermal cover, summer shade, roosting, or as escape cover from predators. Proper management ensures that these shrubs will continue to provide the desired benefits for the local wildlife. A combination of herbicide treatments, cutting and trimming branches, and removal of other competing vegetation will occur. An eligible existing shrub thicket needs to have a canopy cover of 750 square feet, with an end goal of expanding to 1500 square feet. Any existing shrub thicket (not hand planted within the last 5 years) are eligible for this enhancement. Shrub thickets found within fence rows may now be very wide, but still meet the 750 square feet, are eligible.	Acre	1	1	NA
E645C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Edge feathering for wildlife cover	Selected trees are cut, and brush clipped along the border between a wooded area and a grassland, cropland, or idle land, creating a dense woody cover of interlocking branches at ground level. The feathered edge will be an average of 30 feet wide and a minimum of 50 feet long, resulting in an area of 1500 square feet. The width of the strip will vary to follow topographic features and to create a wavy border; the design will also consider aesthetics. Vegetative composition and cover will vary within the edge, ranging from areas with no trees and shrubs to areas with scattered trees and extensive shrub cover. The variation in vegetation structure along with variable width of the edge will create feathering. The edge may include shrub plantings for wildlife food and aesthetics.	Acre	1	1	NA
E645D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X	X	X	X	X	X	Enhanced Wildlife Habitat Management for Upland Landscapes	Enhance existing upland wildlife foraging, breeding or overwintering habitat (currently meeting minimum wildlife habitat planning criteria) for locally breeding and migratory wildlife species.	acre	1	5	NA
E646A	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Close structures to capture and retain rainfall for waterfowl and wading bird winter habitat	When flooded to shallow depths during fall and winter, agricultural fields provide ideal foraging habitat for myriad species of waterfowl and wading birds . In addition, flooded conditions promote establishment of aquatic invertebrate populations, thus providing protein-rich food sources for shorebirds as well as waterfowl and wading birds.	acre	5	1	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E646B	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Extend retention of captured rainfall for migratory waterfowl and wading bird late winter habitat	When flooded to shallow depths during fall and winter, agricultural fields provide ideal foraging habitat for myriad species of waterfowl and wading birds. Harvested and idled agricultural lands, notably those occurring within rice rotations, contain high densities of residual (i.e., waste) grain and natural seeds following harvest. In addition, flooded conditions promote establishment of aquatic invertebrate populations, thus providing protein-rich food sources for shorebirds as well as waterfowl and wading birds. Benefits may become greatest during late winter and early spring as birds are assimilating nutrient and fat reserves in preparation for northward migration. However, agricultural fields flooded during fall-winter are typically drained during late January or February in advance of spring planting. This often results in a rapid reduction in available habitat, and may constrain ability of migratory birds to adequately prepare for migration, with greatest impacts likely occurring during years of low winter precipitation. Retention of water on agricultural lands into early spring will produce maximum benefits to migratory waterfowl and shorebirds by providing high quality habitat during a time when habitat may otherwise be in low abundance.	acre	5	1	NA
E646C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Manipulate vegetation and maintain closed structures for shorebirds mid-summer habitat	Suitable shorebird habitat is limited during the summer and fall as birds migrate south post-breeding and providing shallow water and mud flat habitat will benefit a variety of shorebird species. Optimal conditions are created when water levels are slowly reduced through evaporation, which allows for propagation of invertebrates (typically insect larvae) used as food by shorebirds. Manipulation of vegetation, preferably through rolling, creates open conditions required by this suite of birds as a means to detect and avoid predators, and provides nutrient inputs for invertebrate production.	acre	5	1	NA
E646D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Manipulate vegetation and maintain closed structures for shorebird late summer habitat	Suitable shorebird habitat is limited during the summer and fall as birds migrate south post-breeding. Providing shallow water and mud flat habitat will benefit a variety of shorebird species. Optimal conditions are created when water levels are slowly reduced through evaporation, which allows for propagation of invertebrates (typically insect larvae) used as food by shorebirds. Manipulation of vegetation, preferably through rolling, creates open conditions required by this suite of birds as a means to detect and avoid predators, and provides nutrient inputs for invertebrate production.	acre	5	1	NA
E647C	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	**X**						Maintain most soil vegetation on cropland edges to enhance waterfowl and shorebird habitat	The wetter or more water saturated portions of cropland fields such as areas adjacent to field drains, have the potential to produce a significant amount of moist soil plants which are a tremendously valuable source of forage and cover for many waterfowl, shorebird and wading bird species, especially during a period of time when such plants may be limited. Under normal cropland production, the native vegetation is restricted on these sites through mechanical and/or chemical control. These maintained moist soil plants also will provide filtering and improve water quality.	acre	5	1	NA

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E647D	ANIMALS	Terrestrial Habitat for Wildlife and Invertebrates	X						Establish and maintain early successional habitat in ditches and bank borders	This enhancement is to encourage the establishment of early successional, naturally occurring vegetation in ditches, side slope and bank borders to provide cover, critical nesting and brood rearing habitat as well as filtering overland flow and improving water quality. Ditches perform the critical function of removing water from agricultural lands. Allowing naturally occurring vegetation to develop along ditches, including side slopes, banks and borders, will help provide food and cover for wildlife while enhancing aquatic habitat and improving water quality. Ditches and ditch borders provide a foundation that supports a diverse wildlife community including Northern Bobwhite (Colinus virginianus) and other birds preferring early successional cover. Rabbits, furbearers, amphibians and many other species that inhabit agriculture areas will use this vegetative cover. These areas can also provide critical nesting habitat for the Mottled Duck (Anas fulvigula).	acre	5	1	NA
E666A	SOIL, AIR	Organic Matter Depletion; Soil Organism Habitat Loss or Degradation; Aggregate Instability; Compaction; Emission of Greenhouse Gases (GHGs);				X			Maintaining and improving forest soil quality	Adopts guidelines for maintaining and improving soil quality on sites where forest management activities are practiced. These guidelines will increase soil organic matter content, improve nutrient cycling, and increase infiltration and retention of precipitation. Avoiding soil compaction will allow for greater root development and tree growth, limit windthrow, and reduce drought stress. Increasing carbon storage on site will maintain the soil microbial community and provide wildlife benefits.	acre	10	1	NA
E666D	PLANT, ANIMAL, WATER	Plant Pest Pressure; Terrestrial Habitat for Wildlife and Invertebrates; Naturally Available Moisture Use; Nutrients Transported to Surface Water; Nutrients Transported to Ground Water;				X			Forest management to enhance understory vegetation	This enhancement provides for management of the understory vegetation in a forested area by mechanical, chemical, and/or manual methods to improve the plant species mix and the health of the residual vegetation. Managing the understory vegetation increases available water to the plants, minimizes runoff and erosion, and improves water quality. An adequately stocked forest provides inputs of leaves, needles, and woody twigs and stems to the forest floor, adding to soil organic matter and contributing to forest soil health. Desirable tree species and understory vegetation, with spacing that allows ground cover to develop, will allow moisture to infiltrate and be stored in the soil, releasing moisture over longer periods of time.	acre	10	1	NA
E666E	PLANT	Wildfire Hazard from Biomass Accumulation				X			Reduce height of the forest understory to limit wildfire risk	Forest stand improvement that manages forest structure to reduce the risk of wildfire, and creates conditions that facilitate prescribed burning. The fire risk reduction is accomplished by reducing the height of the woody understory and midstory, creating space between the ground cover and the tree canopy. This enhancement provides for management of the understory vegetation in a forested area, using mechanical, chemical or manual methods to improve the plant species mix and the health of the residual vegetation, and reduce the risk of wildfire. In appropriate stands, the treatment creates conditions that favor prescribed burning. Forest stand improvement (FSI) activities are used to remove trees of undesirable species, form, quality, condition, or growth rate. The quantity and quality of forest for wildlife and/or timber production will be increased by manipulating stand density and structure. These treatments can also reduce wildfire hazards, improve forest health, restore natural plant communities, and achieve or maintain a desired native understory plant community for soil health, wildlife, grazing, and/or browsing.	acre	10	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E666F	PLANT, ANIMAL	Plant Productivity and Health; Terrestrial Habitat for Wildlife and Invertebrates				X			Reduce forest stand density to create open stand structure	Reducing forest stand density creates open forest conditions with a low basal area which promotes the health and vigor of the residual trees. The open stand structure allows a significant amount of sunlight to reach the forest floor and stimulates the growth of understory vegetation. Understory vegetation management, along with the wide spacing between trees or clumps of trees, provides visual appeal, lowers the risk of wildfire, and provides habitat for many at-risk and listed wildlife species. The enhancement creates conditions that facilitate a follow-up treatment with prescribed burning.	acre	10	1	NA
E666G	PLANT, ANIMAL	Wildfire Hazard from Biomass Accumulation; Terrestrial Habitat for Wildlife and Invertebrates				X			Reduce forest density and manage understory along roads to limit wildfire risk and improve habitat	Opening the tree canopy along roads ("daylighting"), and providing space between ground vegetation and tree crowns minimizes the spread of wildfires that often start along roads, and improves wildlife habitat and food sources for many species. Some trees near a forest road are removed through harvesting, cutting, mulching, or another option available at the site, with the objective of creating a partially open forest canopy bordering the road. A semi-open canopy allows more sunlight to reach the forest floor to promote herbaceous understory plants, and reduces maintenance needs by allowing moisture to evaporate from roads. The reduced canopy and herbaceous understory limit woodland fuel buildup and reduce fire intensity.	acre	10	1	NA
E666H	SOIL, AIR	Emission of Greenhouse Gases (GHGs), Organic Matter Depletion				X	X	X	Increase on-site carbon storage	Use forest management techniques to maintain and increase on-site carbon storage. These include, but are not limited to, applying uneven-aged management, using longer rotations, retaining cavity/den trees, snags, and down woody debris, and protecting or increasing soil organic material.	acre	10	1	NA
E666I	PLANT, ANIMAL	Plant Productivity and Health; Terrestrial Habitat for Wildlife and Invertebrates				X	X	X	Crop tree management for mast production	Forest stand improvement using crop tree management techniques to increase mast production	acre	10	1	NA
E666J	PLANT, ANIMAL	Plant Productivity and Health; Plant Structure and Composition; Terrestrial Habitat for Wildlife and Invertebrates				X	X		Facilitating oak forest regeneration	Facilitate oak regeneration following a forest stand improvement treatment for natural oak regeneration (i.e., a regeneration cut). After a regeneration cut, oaks in the seedling and sapling stages are often out-competed by invasive brush and undesirable tree and shrub species. This enhancement will release seedling and sapling oaks from competing invasive plants and other undesirable species, and thin stump sprouts. A forester will monitor site conditions, treat competition, protect seedlings, and recommend additional follow-up treatments as needed. The enhancement protects investments in oak regeneration by providing for follow-up activities that require the expertise of a professional forester.	acre	10	2	NA
E666K	PLANT, ANIMAL	Plant Structure and Composition; Terrestrial Habitat for Wildlife and Invertebrates				X	X	X	Creating structural diversity with patch openings	Forest stand improvement that creates patch openings. Size, shape, and arrangement of patches will be based on natural features, and emulate patches that would result from natural disturbance regimes of wind or fire, varying geographically and by forest type, and by tree species desired from natural regeneration. The treatment will create diversity in stand composition and structure, increase pest resistance, and enhance wildlife food availability. Openings may provide regeneration sites and restore natural plant communities, and achieve or maintain a desired understory plant community for wildlife habitat.	acre	10	1	NA

FY 2024 Program Enhancement Activity List

Code	Resource Concern	Resource Concern Cause	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Full Enhancement Name	Enhancement Description	Units	Enhancement Lifespan	Max years enh. can be contracted	Suitable for Land Use Conversion
E666L	PLANT, ANIMAL	Plant Structure and Composition, Terrestrial Habitat for Wildlife and Invertebrates				X			Forest Stand Improvement to rehabilitate degraded hardwood stands	Hardwood forestland has been subject to poor logging practices ("high-grading") for decades. Without professional forestry assistance the best species and individual trees are removed, often before maturity ("diameter-limit cutting"), leaving the poorest species and individual trees to regenerate the stand. Reversing this process requires cutting or killing poor quality trees while retaining any desirable species that might still be present. A combination of 3 silvicultural methods are applied: crop tree release, group selection (all trees removed from an area 0.25 to 1.0 acre in size) and small clear-cuts (all trees removed from an area 1-3 acres in size).	acre	10	1	NA
E666O	ANIMAL	Terrestrial Habitat for Wildlife and Invertebrates				X	X	X	Snags, den trees, and coarse woody debris for wildlife habitat	Improve wildlife habitat through creation and retention of snags, den trees, forest stand structural diversity, and coarse woody debris on the forest floor, to provide cover/shelter for native wildlife species.	acre	10	1	NA
E666P	ANIMAL	Terrestrial Habitat for Wildlife and Invertebrates				X	X	X	Summer roosting habitat for native forest-dwelling bat species	Create new potential roost trees within upland and riparian forests to achieve desired summer habitat for forest-dwelling bat species.	acre	10	1	NA
E666R	ANIMAL	Terrestrial Habitat for Wildlife and Invertebrates				X	X	X	Forest songbird habitat maintenance	Adopts guidelines and methods developed by the Forest Bird Initiative of the Vermont Audubon Society, to preserve habitat features following a forest stand improvement treatment designed to create habitat for a suite of forest-dwelling neotropical migratory songbirds. It includes developing or updating a forest management plan, inspecting and tending forest habitat, and monitoring bird populations. It protects investments in habitat creation by providing for follow-up activities that require the expertise of a professional forester or biologist. This enhancement is appropriate for states in the Atlantic Flyway and the Upper Midwest.	acre	10	5	NA

FY 2024 CSP Activity List

Bundles - Not suitable for Voluntary Land Use Conversion

Conservation Activity Code	Resource Concern	Resource Concern Category	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Supplemental Payment Name	Supplemental Payment Description (NOT suitable for Voluntary Land Use Conversion)	Units	Enhancement Lifespan	Max years enh. can be contracted
E328A	SOIL, PLANTS	Sheet and Rill Erosion; Wind Erosion; Organic Matter Depletion; Compaction; Plant Pest Pressure; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Supplemental Payment - Resource conserving crop rotation	Establish a Resource Conserving Crop Rotation. Rotation must include AT LEAST one resource conserving crop as determined by the State Conservationist in a minimum three year crop rotation. The crop rotation will reduce soil erosion (water and wind), improve soil health, improve soil moisture efficiency, and reduce plant pest pressures.	acre	1	5
E328B	PLANTS	Sheet and Rill Erosion; Wind Erosion; Organic Matter Depletion; Compaction; Plant Pest Pressure; Soil Organism Habitat Loss or Degradation; Aggregate Instability	X						Supplemental Payment - Improved resource conserving crop rotation	Improve an existing Resource Conserving Crop Rotation. Must enrich an existing rotation which already includes AT LEAST one resource conserving crop as determined by the State Conservationist in a minimum three year crop rotation. The crop rotation will reduce soil erosion (water and wind), improve soil health, improve soil moisture efficiency, and reduce plant pest pressures.	acre	1	5
AGM	SOIL, WATER, ANIMALS, PLANTS, AIR	Dependent Upon Component Enhancements			X	X			Supplemental Payment- Advanced Grazing Management (AGM)	The Advanced Grazing Management (AGM) Supplemental Payment improves the benefit of managed grazing by integrating an additional suite of enhancements as a grazing system that address resource concerns associated on the land being contracted	Acre	The AGM's Life Span is dependent upon the chosen supplemental enhancement lifespan. Each Enhancement has its own individual life span and will need to be implemented accordingly.	Depending upon the supplemental enhancement selected (see column M on the enhancement tab).

FY 2024 CSP Activity List

Bundles - Not suitable for Voluntary Land Use Conversion

Bundle Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Bundle Name	Bundle Description (Bundles are NOT suitable for Voluntary Land Use Conversion)	Units	Enhancement Lifespan	Max years enh. can be contracted
B000BFF1	X	X			X		Buffer Bundle #1	Extend existing Buffers to address water quality degradation, fish/wildlife inadequate habitat, degraded plant condition plus an option for air quality impacts. Adopt E393A, E327A or E420A, and E612D as well as one of the following enhancements: E612B, E612G. This bundle will be applied one time and the enhancements maintained for their lifespan.	acre	15	1
B000CPL10	X						YEAR 1 Irrigated Cropland (MRBI/Ogallala)	Addresses water quality degradation, insufficient water, soil erosion, and inefficient energy resource concerns. Adopt E590A, E449D, E449A, and E340A. This bundle will be applied one time and the enhancements maintained for their lifespan.	acre	1	1
B000CPL11	X						YEAR 2+ Irrigated Cropland (MRBI/Ogallala)	Addresses water quality degradation, insufficient water, and soil erosion resource concerns. Adopt E590A, E449C, and E340A. This bundle may be applied multiple times.	acre	1	4
B000CPL12	X						Non-Irrigated Precision Ag (MRBI)	Addresses water quality degradation, soil quality, and soil erosion resource concerns. Adopt E590B, E595A, E340A, and E329D or E345D. This bundle may be applied multiple times.	acre	1	5
B000CPL13	X						Non-Irrigated Cropland (MRBI)	Addresses water quality degradation, soil quality, and soil erosion resource concerns. Adopt E590A, E595B, and E340A. This bundle may be applied multiple times.	acre	1	5
B000CPL14	X						YEAR 1 Irrigated Precision Ag Cropland (MRBI)	Addresses water quality degradation, insufficient water, soil erosion, and inefficient energy resource concerns. Adopt E590B, E449D, E449A, and E340A. This bundle will be applied one time and the enhancements maintained for their lifespan.	acre	1	1
B000CPL15	X						YEAR 2+ Irrigated Precision Ag Cropland (MRBI)	Addresses water quality degradation, insufficient water, and soil erosion resource concerns. Adopt E590B, E449C, and E340A. This bundle may be applied multiple times.	acre	1	4
B000CPL16	X						Non-Irrigated Cropland with Water Bodies (MRBI)	Addresses water quality degradation, soil erosion, and soil quality resource concerns. Adopt E590A, E595B, E340A, E329D or E345D, and E390A or E393A. This bundle may be applied multiple times.	acre	1	5
B000CPL17	X						Non-Irrigated Cropland with Water Bodies Riparian Forest Buffer (MRBI)	Addresses water quality degradation, soil erosion, and soil quality resource concerns. Adopt E590A, E595B, E340A, E329D or E345D, and E391A. This bundle may be applied multiple times.	acre	1	5
B000CPL18	X						Crop Bundle #18 - Precision Ag	Addresses water quality degradation, fish and wildlife inadequate habitat, air quality impairment, and either soil erosion or soil quality degradation resource concerns. Adopt E595A, E590B, E328D, E329A or E345A, and E340A or E340C. This bundle may be applied multiple times.	acre	1	5

FY 2024 CSP Activity List

Bundles - Not suitable for Voluntary Land Use Conversion

Bundle Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Bundle Name	Bundle Description (Bundles are NOT suitable for Voluntary Land Use Conversion)	Units	Enhancement Lifespan	Max years enh. can be contracted
B000CPL19	X						Crop Bundle #19 - Soil Health Precision Ag	Addresses water quality degradation, soil quality degradation, fish and wildlife inadequate habitat, and insufficient water resource concerns. Adopt E595A, E590B, E328D, E327A or E420A, and E329C or E345C. This bundle may be applied multiple times.	acre	1	5
B000CPL20	X						Crop Bundle #20 - Soil Health Assessment	Addresses water quality degradation, soil quality degradation, fish and wildlife inadequate habitat, and insufficient water resource concerns. Adopt E595B, E590A, E328F, E327A or E420A, and E329C or E345C. This bundle may be applied multiple times.	acre	1	5
B000CPL21	X						Crop Bundle #21 - Crop Bundle (Organic)	Addresses soil quality degradation, water quality degradation, and degraded plant condition resource concerns. Adopt E484A, E595B, E590A, E393A, and E612D. This bundle may be applied multiple times.	acre	1	5
B000CPL22	X						Crop Bundle #22 - Erosion Bundle (Organic)	Addresses soil quality degradation, water quality degradation, soil erosion, and fish and wildlife inadequate habitat resource concerns. Adopt E328E, E345D, E595B, E590A, E340A, and E327A or E420A. This bundle may be applied multiple times.	acre	1	5
B000CPL23	X						Crop Bundle #23 – Pheasant and quail habitat	Addresses wildlife habitat, either water quality or air quality, and either soil health or plant pest pressure resource concerns. Adopt E393A or E386C or E390A, E340C or E340H or E386B, E328D or E328L, and E645B or E612G or E386E or E328K or E328J or E511A. This bundle may be applied multiple times.	acre	1	5
B000CPL24	X						Crop Bundle #24 – Cropland Soil Health Management System	Addresses soil health, water quality (or water quality and air quality), and either soil erosion, soil compaction, or plant pest pressure resource concerns. Adopt E329D, E328F, E590A or E590B, and E340A or E340F or E340H. This bundle may be applied multiple times.	acre	1	5
B000CPL25	X						Crop Bundle 25 - Climate Smart Advanced Soil Health	Improve crop land soil health by increasing plant diversity and minimizing soil disturbance. Adopt E595B, E345D or E329D or E590A and E328K or E328J or E340B or E340C or E340E. This bundle may be applied multiple times.	acre	1	5
B000FST1				X			Forest Bundle #1	Addresses forest management on sites that are not adapted to natural fire disturbances. Address soil quality degradation, degraded plant condition, fish/wildlife inadequate habitat, and insufficient water. Adopt E666A, E666D, E666I, E666O, and E612B or E612G.	acre	15	1
B000FST2				X			Forest Bundle #2 – Post-fire Management	Address forest management on sites that have been burned in a natural fire disturbance. Address soil quality degradation, degraded plant condition, fish/wildlife inadequate habitat, and insufficient water. Adopt E666G, E315A and E666E or E666F.	acre	10	1

FY 2024 CSP Activity List

Bundles - Not suitable for Voluntary Land Use Conversion

Bundle Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Bundle Name	Bundle Description (Bundles are NOT suitable for Voluntary Land Use Conversion)	Units	Enhancement Lifespan	Max years enh. can be contracted
B000FST3				X			Forest Bundle #3	Address forest management on sited degraded through poor logging practices. Address soil quality degradation, degraded plant condition, fish/wildlife inadequate habitat, and insufficient water. Adopt E666A, E666L, E666O and E314A.	acre	10	1
B000FST4				X			Forest Bundle #4	Address forest management on site to improve sugar maple stands. Adopt E612F, E666A, E666D, and E661I or E612D.	acre	15	1
B000FST5				X			Forest Bundle #5 - Increase Carbon Sequestration and Storage	Improve forest and tree health, enhance wildlife, and reduce soil erosion to support climate change mitigation. Build carbon stocks by increasing sequestration and storage. Adopt E612B. E666A, E666O, and E666H or E666I.	acre	15	1
B000GRZ1			X				Grazing Bundle 1 - Range and Pasture	The participant will implement site specific strategies applied to range or pasture through the following enhancements: E528L, E315A, and E645A. This bundle may be applied multiple times in order to address soil erosion, degraded plant condition, and fish and wildlife inadequate habitat resource concerns.	acre	1	5
B000GRZ2			X				Grazing Bundle 2 - Range and Pasture	The participant will implement site specific strategies applied to range or pasture through the following enhancements: E472A, E382A, and E580A. This bundle will be applied one time and the enhancements maintained for their lifespan in order to address water quality degradation, fish and wildlife inadequate habitat, and soil erosion resource concerns.	acre	20	1
B000GRZ3			X				Grazing Bundle 3 - Range and Pasture	The participant will implement site specific strategies applied to range or pasture through the following enhancements: E472A, E390B, and E580A. This bundle will be applied one time and the enhancements maintained for their lifespan in order to address water quality degradation, fish and wildlife inadequate habitat, and soil erosion resource concerns.	acre	20	1
B000GRZ4			X				Grazing Bundle 4 - Range and Pasture	The participant will implement site specific strategies applied to range or pasture through the following enhancements: E472A, E391C, and E580A. This bundle will be applied one time and the enhancements maintained for their lifespan in order to address water quality degradation, fish and wildlife inadequate habitat, and soil erosion resource concerns.	acre	20	1
B000GRZ5			X				Grazing Bundle 5 - Range and Pasture	The participant will implement site specific strategies applied to range or pasture through the following enhancements: E528A, E315A, and E645A. This bundle may be applied multiple times in order to address soil erosion, degraded plant condition, and fish and wildlife inadequate habitat resource concerns.	acre	1	5
B000PST5			X				Pasture Bundle 5	The participant will implement site specific strategies applied to pasture by implementing the following enhancements E528J, E315A, and E645A. This bundle may be applied multiple times in order to address soil erosion, degraded plant condition, and fish and wildlife inadequate habitat resource concerns.	acre	1	5

FY 2024 CSP Activity List

Bundles - Not suitable for Voluntary Land Use Conversion

Bundle Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Bundle Name	Bundle Description (Bundles are NOT suitable for Voluntary Land Use Conversion)	Units	Enhancement Lifespan	Max years enh. can be contracted
B000PSTX			X				Pasture Bundle 6	By implementing a combination of three enhancements (E528A, E315A, and E512D) together, a synergy is achieved that should result in more conservation benefits than would be expected from implementing the enhancements individually. This bundle maybe applied multiple times to address degraded plant condition, plant pest pressure, soil health and erosion resource concerns.	Acre	1	5

Practice Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Practice Name	Units	lifespan	Suitable for Land Use Conversion
311	X	X					Alley Cropping	ac	15	
314			X	X	X		Brush Management	ac	10	
315			X	X	X	X	Herbaceous Weed Control	ac	5	
319	X	X	X	X	X	X	On-Farm Secondary Containment Facility	no	15	
327	X	X		X	X	X	Conservation Cover	ac	5	
328	X						Conservation Crop Rotation	ac	1	
329	X						Residue and Tillage Management, No Till	ac	1	
333	X	X					Amending Soils with Gypsum Products	ac	1	
334	X	X					Controlled Traffic Farming	ac	5	
338			X	X	X		Prescribed Burning	ac	1	
340	X	X	X				Cover Crop	ac	1	
342	X	X	X	X	X	X	Critical Area Planting	ac	10	
345	X						Residue and Tillage management, Reduced till	ac	1	
374	X	X	X	X	X	X	Farmstead Energy Improvement	no	10	
378			X				Pond	no	20	
380	X	X	X		X	X	Windbreak/Shelterbelt Establishment	ft	15	
382	X	X	X	X	X	X	Fence	ft	20	
384				X	X		Woody Residue Treatment	ac	10	
386	X	X			X		Field Border	ac	10	
390	X	X	X		X	X	Riparian Herbaceous Cover	ac	5	
391	X	X	X	X	X	X	Riparian Forest Buffer	ac	15	
393	X	X			X	X	Filter Strip	ac	10	
394	X	X	X	X	X	X	Firebreak	ft	5	
395	X	X	X	X	X	X	Stream Habitat Improvement and Management	ac	5	
396	X	X		X	X	X	Aquatic Organism Passage	mi	5	
410	X	X	X	X	X		Grade Stabilization Structure	no	15	
412	X	X	X		X	X	Grassed Waterway	ac	10	
420	X	X	X	X	X	X	Wildlife Habitat Planting	ac	5	
422	X	X			X		Hedgerow	ft	15	
430	X	X	X	X	X	X	Irrigation Pipeline	ft	20	
441	X	X		X	X	X	Irrigation System, Microirrigation	ac	15	
442	X	X	X	X	X	X	Sprinkler system	ac	15	
443	X	X	X				Irrigation System, Surface and Subsurface	ac	15	
449	X	X	X	X	X	X	Irrigation Water Management	ac	1	
472	X	X	X	X	X	X	Access Control	ac	10	
484	X	X	X	X	X	X	Mulching	ac	1	
490	X	X	X	X	X	X	Tree/Shrub Site Preparation	ac	1	
511	X	X	X				Forage Harvest Management	ac	1	
512	X	X	X		X	X	Pasture and Hay Planting	ac	5	YES
516	X	X	X	X	X	X	Livestock Pipeline	ft	20	
528	X	X	X	X	X		Prescribed Grazing	ac	1	
533	X	X	X	X	X	X	Pumping Plant	no	15	
554	X	X			X		Drainage Water Management	ac	1	
558					X	X	Roof Runoff Structure	no	15	
561			X	X	X	X	Heavy Use Area Protection	sq ft	10	
570	X	X	X	X	X	X	Stormwater Runoff Control	no	1	
574			X		X		Spring Development	no	20	
578	X	X	X	X	X	X	Stream Crossing	no	10	
580	X	X	X	X	X	X	Streambank and Shoreline Protection	ft	20	
587	X						Structure for Water Control	no	20	
590	X	X	X				Nutrient Management	ac	1	
595	X	X	X	X		X	Integrated Pest Management	ac	1	
604	X	X			X		Saturated Buffer	ft	15	
605	X	X			X		Denitrifying Bioreactor	no	10	
606	X	X	X	X	X		Subsurface Drain	ft	20	

Practice Code	Crop (Annual and Mixed)	Crop (Perennial)	Pasture	Forest	Associated Ag Land	Farmstead	Practice Name	Units	lifespan	Suitable for Land Use Conversion
612	X	X	X	X	X	X	Tree/Shrub Establishment	ac	15	YES
614			X	X	X		Watering Facility	no	10	
620	X	X	X	X	X	X	Underground Outlet	ft	20	
643				X	X		Restoration and Management of Rare and Declining Habitats	ac	1	
644	X	X	X	X	X	X	Wetland Wildlife Habitat Management	ac	1	
645	X	X	X	X	X	X	Upland Wildlife Habitat Management	ac	1	
646	X	X	X	X	X		Shallow Water Development and Management	ac	5	
647	X	X	X	X	X	X	Early Successional Habitat Development/Management	ac	1	
649	X	X	X	X	X	X	Structures for Wildlife	no	5	
650	X	X	X		X	X	Windbreak/Shelterbelt Renovation	ft	15	
655				X			Forest Trails and Landings	ft	5	
666				X	X	X	Forest Stand Improvement	ac	10	
782	X	X			X		Phosphorus Removal System	no	10	