Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2025

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
311	Alley Cropping (acres)	None Available	
313	Waste Storage Facility (number) • Used to implement compost bedded-pack[2]	None Available	
314	Brush Management (acres) • Used to remove woody invasive vegetation in arid regions and the removed material will be left onsite[2]	E314A	Brush management to improve wildlife habitat
315	Herbaceous Weed Treatment (acres) • Used to release desired deep rooted perennial species[2]	E315A	Herbaceous weed treatment to create desired plant communities consistent with the ecological site
317	Composting Facility (number)	None Available	
327	Conservation Cover (acres)	E327A	Conservation cover for pollinators and beneficial insects
		E327B	Establish Monarch butterfly habitat
		E327C	Wildlife habitat for nesting and brooding in non-cropped areas
328	Conservation Crop Rotation (acres)	E328A	Resource conserving crop rotation
		E328B	Improved resource conserving crop rotation
		E328E	Soil health crop rotation
		E328F	Modifications to improve soil health and increase soil organic matter
		E328H	Conservation crop rotation to reduce the concentration of salts
		E328N	Intercropping to improve soil health
		E328O	Perennial grain crop conservation rotation
329	Residue and Tillage Management, No Till (acres)	E329A	No till to reduce soil erosion
		E329B	No till to reduce tillage induced particulate matter
		E329C	No till to increase plant-available moisture
		E329D	No till system to increase soil health and soil organic matter content
		E329E	No till to reduce energy
332	Contour Buffer Strips (acres)	None Available	
336	Soil Carbon Amendment (acres)	None Available	
338	Prescribed Burning (acres) • To reduce wildfire hazards in forest systems at risk of wildfire[2]	None Available	

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
340	Cover Crop (acres)	E340A	Cover crop to reduce soil erosion
		E340B	Intensive cover cropping to increase soil health and soil organic matter content
		E340C	Use of multi-species cover crops to improve soil health and increase soil organic matter
		E340D	Intensive orchard/vineyard floor cover cropping to increase soil health
		E340E	Use of soil health assessment to assist with development of cover crop mix to improve soil health
		E340F	Cover crop to minimize soil compaction
		E340G	Cover crop to reduce water quality degradation by utilizing excess soil nutrients
		E340H	Cover crop to suppress excessive weed pressures and break pest cycles
		E340I	Using cover crops for biological strip till
		E340J	Cover crop to improve moisture use efficiency and reduce salts
342	Critical Area Planting (acres)	None Available	
345	Residue and Tillage Management, Reduced Till (acres)	E345A	Reduced tillage to reduce soil erosion
		E345B	Reduced tillage to reduce tillage induced particulate matter
		E345C	Reduced tillage to increase plant-available moisture
		E345D	Reduced tillage to increase soil health and soil organic matter content
		E345E	Reduced tillage to reduce energy use
366	Anaerobic Digester (number)	None Available	
367	Roofs and Covers (number) • Used to cover a waste management facility to capture biogas[2]	None Available	
372	Combustion System Improvement (number) • Used for stationary or mobile engine replacement or repower to electric motor[2]	E372A	Switch to Renewable Power Source
		E372B	Renewable Energy Source for Large Internal Combustion Engines
374	Energy Efficient Agricultural Operation (number)	None Available	
379	Forest Farming (acres)	None Available	
380	Windbreak/Shelterbelt Establishment and Renovation (feet)	None Available	
381	Silvopasture (acres) • Establishing woody plant species[2]	E381A	Silvopasture to improve wildlife habitat
383	Fuel Break (acres)	E383A	Grazing-maintained fuel break to reduce the risk of fire
384	Woody Residue Treatment (acres)	E384A	Biochar production from woody residue

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
386	Field Border (acres)	E386A	Enhanced field borders to reduce soil erosion along the edge(s) of a field
		E386B	Enhanced field borders to increase carbon storage along the edge(s) of the field
		E386C	Enhanced field borders to decrease particulate emissions along the edge(s) of the field
		E386D	Enhanced field borders to increase food for pollinators along the edge(s) of a field
		E386E	Enhanced field borders to increase wildlife food and habitat along the edge(s) of a field
390	Riparian Herbaceous Cover (acres)	E390A	Increase riparian herbaceous cover width for sediment and nutrient reduction
		E390B	Increase riparian herbaceous cover width to enhance wildlife habitat
391	Riparian Forest Buffer (acres)	E391A	Increase riparian forest buffer width for sediment and nutrient reduction
		E391B	Increase stream shading for stream temperature reduction
		E391C	Increase riparian forest buffer width to enhance wildlife habitat
393	Filter Strips (acres)	E393A	Extend existing filter strip to reduce water quality impacts
412	Grassed Waterways (acres)	E412A	Enhance a grassed waterway
420	Wildlife Habitat Planting (acres)	E420A	Establish pollinator habitat
		E420B	Establish monarch butterfly habitat
422	Hedgerow Planting (feet)	None Available	
430	Irrigation Pipeline (feet) • Used to reduce fossil fuel energy use[2]	None Available	
441	Irrigation System, Microirrigation (acres) • Used to reduce fossil fuel energy use[2]	None Available	
442	Sprinkler System (acres) • Used to reduce fossil fuel energy use[2]	None Available	
449	Irrigation Water Management (acres) • Used as part of an alternated wetting and drying (AWD) system in rice fields[2]	E449B	Alternated Wetting and Drying (AWD) of rice fields
453	Land Reclamation, Landslide Treatment (acres)[3]	None Available	
484	Mulching (acres) • Apply natural mulch materials[2]	E484A	Mulching to improve soil health
		E484B	Reduce particulate matter emissions by using orchard or vineyard generated woody materials as mulch
		E484C	Mulching with natural materials in specialty crops for weed control
		E484D	Lowbush Blueberry Mulching for Moisture Management

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
512	Pasture and Hay Planting (acres)	E512A	Cropland conversion to grass-based agriculture to reduce soil erosion
		E512B	Forage and biomass planting to reduce soil erosion or increase organic matter to build soil health
		E512C	Cropland conversion to grass for soil organic matter improvement
		E512D	Forage plantings that help increase organic matter in depleted soils
		E512I	Establish pollinator and/or beneficial insect and/or monarch habitat
		E512J	Establish wildlife corridors to provide habitat continuity or access to water
		E512L	Diversifying forage base with interseeding forbs and legumes to increase pasture quality
		E512M	Forage plantings that improve wildlife habitat cover and shelter or structure and composition
528	Prescribed Grazing (acres)	E528A	Maintaining quantity and quality of forage for animal health and productivity
		E528D	Grazing management for improving quantity and quality of food or cover and shelter for wildlife
		E528E	Improved grazing management for enhanced plant structure and composition for wildlife
		E528F	Stockpiling cool season forage to improve structure and composition or plant productivity and health
		E528G	Improved grazing management on pasture for plant productivity and health with monitoring activities
		E528H	Prescribed grazing to improve/maintain riparian and watershed function-elevated water temperature
		E528I	Grazing management that protects sensitive areas-surface or ground water from nutrients
		E528J	Prescribed grazing on pastureland that improves riparian and watershed function
		E528L	Prescribed grazing that improves or maintains riparian and watershed function-erosion
		E528M	Grazing management that protects sensitive areas from gully erosion
		E528N	Improved grazing management through monitoring activities
		E528O	Clipping mature forages to set back vegetative growth for improved forage quality
		E528P	Implementing Bale or Swath Grazing to increase organic matter and reduce nutrients in surface water
		E528R	Management intensive rotational grazing
		E528S	Soil Health Improvements on Pasture
		E528T	Grazing to Reduce Wildfire Risks on Forests
		E528U	Contingency Planning for Resiliency
533	Pumping Plant (number) • Used to reduce fossil fuel energy use[2]	E533C	Install VFDs on pumps
		E533D	Switch fuel source for pumps
543	Land Reclamation, Abandoned Mined Land (acres)[3]	None Available	

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
550	Range Planting (acres)	E550A	Range planting for increasing/maintaining organic matter
		E550B	Range planting for improving forage, browse, or cover for wildlife
554	Drainage Water Management • Raise the groundwater table on organic soils in offseason[2]	None Available	
585	Stripcropping (acres)	None Available	
590	Nutrient Management (acres)	E590A	Improving nutrient uptake efficiency and reducing risk of nutrient losses
		E590B	Reduce risks of nutrient loss to surface water by utilizing precision agriculture technologies
		E590C	Improving nutrient uptake efficiency and reducing risk of nutrient losses on pasture
		E590D	Reduce risks of nutrient losses to surface and groundwater by increasing setback awareness via precision technology
592	Feed Management (animal unit) • Used to reduce enteric methane emissions[2]	None Available	
601	Vegetative Barriers (feet)	None Available	
603	Herbaceous Wind Barriers (feet)	None Available	
604	Saturated Buffer • Replacing a cultivated riparian area[2]	None Available	
612	Tree-Shrub Establishment (acres)	E612B	Planting for high carbon sequestration rate
		E612C	Establishing tree/shrub species to restore native plant communities
		E612D	Adding food-producing trees/shrubs to an agroforestry system
		E612E	Cultural plantings
		E612F	Sugarbush management
		E612G	Tree/shrub planting for wildlife food
632	Waste Separation Facility (number)	None Available	
643	Restoration of Rare or Declining Natural Communities (ac) • Used to restore floodplain hydrology or restore an oyster reef[2]	E643A	Restoration of sensitive coastal vegetative communities
		E643D	Low-tech process-based restoration to enhance floodplain connectivity
657	Wetland Restoration (acres) • Restoration of histosol wetland[2]	None Available	

Highlighted activities have been added or updated in FY2025.

Code	Conservation Practice Standard Name[1] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities[1]
666	Forest Stand Improvement (acres)	E666A	Maintaining and improving forest soil quality
		E666D	Forest management to enhance understory vegetation
		E666E	Reduce height of the forest understory to limit wildfire risk
		E666F	Reduce forest stand density to create open stand structure
		E666G	Reduce forest density and manage understory along roads to limit wildfire risk and improve habitat
		E666H	Increase on-site carbon storage
		E666I	Crop tree management for mast production
		E666J	Facilitating oak forest regeneration
		E666K	Creating structural diversity with patch openings
		E666L	Forest Stand Improvement to rehabilitate degraded hardwood stands
		E666O	Snags, den trees, and coarse woody debris for wildlife habitat
		E666P	Summer roosting habitat for native forest-dwelling bat species
		E666R	Forest songbird habitat maintenance
		E666S	Facilitating longleaf pine regeneration and establishment
670	Energy Efficient Lighting System (number)	None Available	
672	Energy Efficient Building Envelope (number)	None Available	

Notes

In addition to the designated CSAF conservation activities listed, conservation practices that facilitate the management or the function of a CSAF activity but may not achieve the desired effects on their own (and may not have a quantifiable benefit), may be planned as applicable in consultation with your local professional conservation planner. Examples: Tree-Shrub Establishment (612) may need facilitating practices such as Tree/Shrub Site Preparation (490) or Access Control (472). Conservation Crop Rotation (328) may need facilitating practices such as Pest Management Conservation System (595), Cover Crops (340), Irrigation Water Management (449), or Drainage Water Management (554). Waste Separation Facility (632) may need facilitating practices such as Waste Transfer (634) or Roofs and Covers (367). Prescribed Grazing (528) may need facilitating practices such as Watering Facility (614), Stream Crossing (578), Brush Management (314), Fence (382), or Livestock Shelter Structure (576).

The following was removed from the list for FY2025: Enhancement (338B) Strategically planned, patch burning for grazing distribution and wildlife habitat. Bundles for CSP and NRCS Easement activities are not listed in this document, please refer to program guidance for information.

[1] The included Conservation Practice Standard and Conservation Stewardship Program links provide national information. Please consult the NRCS office at your local USDA Service Center for any local and state level criteria. Visit **farmers.gov/service-locator** to find contact information for your local office.

[2] The practice is considered a mitigation activity only when implemented in a specified way. The practice is considered a mitigation activity only when implemented in the specified way; as identified in the brief description. See the associated narrative and additional planner guidance section at the end of this document.

[3] Eligibility for financial assistance is based on the land use where practice would be applied.

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Additional Planner Guidance for FY25 Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities with Specified Implementations

This document provides a conservation planner with additional guidance to plan, design, and implement the identified CSAF Mitigation Activities with specific implementations to meet the intended goal of providing mitigation benefits. The practices in the table below are only considered CSAF Mitigation Activities when implemented according to the description in the corresponding narrative.

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
313	Waste Storage Facility (number)	01N	Compost Bedded Pack waste storage facility — a livestock agricultural waste storage fabricated structure where manure is composted within the animal housing.	• Use 01N when specifically planning a compost bedded pack structure. When implemented this way, the practice can lead to reduced methane (CH_4) emissions resulting from the added carbonaceous bedding material and regularly tilling to promote composting, as compared to a liquid storage system. • **For any other waste storage structure, use 00N (which would not be a CSAF mitigation activity).**
314	Brush Management (acres)	03N	Remove woody (non-herbaceous and succulent) invasive vegetation to maintain or enhance deep rooted native perennial grass and forb communities, in arid regions leaving treated woody material onsite to mitigate above ground carbon loss.	• Use 03N when specifically planning the practice to remove woody (non-herbaceous and succulent) invasive vegetation to maintain or enhance native perennial grass and forb communities in arid regions. Woody residue from mechanical or chemical treatments must be left onsite. When implemented this way, the practice can be used to maintain or re-establish native perennial plant communities and associated carbon stocks and carbon balance equilibrium. Restoring reference perennial plant communities may increase resistance to disturbances such as wildfire that would result in even greater carbon losses. • Practice must be implemented in areas where mean annual precipitation is less than 340 millimeters or 13.4 inches. Literature suggests that in these arid areas, woody infestations that result in a decrease in above and below ground carbon stocks, as compared to reference native communities, can be mitigated through brush management. • Use the climate normals annual precipitation map, available as a data layer in Conservation Desktop, from Climate.gov, NOAA data for the reference period 1991–2020 to determine applicability. • Woody residue left on site should be treated in a manner (i.e., lop and scatter) not to cause additional resource concerns or increase wildfire hazard. • When available, planners should use Ecological Site Descriptions (ESDs) to assess the potential for a plant community to address carbon sequestration. Determining if the practice can maintain or increase carbon stocks is situational and relies on planners' professional judgment and familiarity with the ecological site being evaluated. Planning the practice in a way that addresses soil erosion and the soil organic matter depletion resource concern components should result in an application designed to re-establish an equilibrium, which may increase soil organic carbon. • **For any other application of brush management that does not meet these criteria, including for instance implementations that involve burn piles or hauled residue, use the appropriate narrative (which would not be a CSAF mitigation activity).**

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
315	Herbaceous Weed Treatment (acres)	01N	Removal of herbaceous weeds to release desired deep rooted perennial grass and forb species.	• Use 01N when specifically planning the practice to treat herbaceous weeds to release desired deep rooted perennial species. When implemented this way, the practice can be used to restore plant communities containing significant herbaceous weeds to deep rooted perennial dominated plant communities, which can result in increased soil organic carbon stocks over time. • When available, planners should use Ecological Site Descriptions (ESDs) to assess the potential for a plant community to address soil carbon sequestration. Determining if the practice can maintain or increase carbon stocks is situational and relies on planners' professional judgment and familiarity with the ecological site being evaluated. Planning the practice in a way that addresses soil erosion and the soil organic matter depletion resource concern components should result in an application designed to re-establish an equilibrium, which may increase soil organic carbon stocks over time. • For best results, practice should be applied early when invasive species begin to occupy and infest a desirable plant community. • **For any other application of herbaceous weed treatment that does not meet these criteria, use 00N (which would not be a CSAF mitigation activity).**
338	Prescribed Burning (acres)	01N	Conducting a prescribed burn on a forested ecosystem with the purpose of reducing wildfire hazards in an area with increased risk of wildfire.	• Use 01N when specifically conducting a prescribed burn on a forested ecosystem with the purpose of reducing wildfire hazards in an area with increased risk of wildfire. When implemented this way, the practice is expected to result overall in decreased net emissions compared to emissions that would result from catastrophic wildlife even though there are emissions associated with its implementation. • Practices should be applied only on areas with increased risk of wildfire with a fire return interval of 20 years or less. Use resources such as LANDFIRE.gov to determine the fire return interval at each location. • Practices should be applied for the primary purpose of reducing wildfire hazards from biomass accumulation. • **For any other application of prescribed burning that does not meet these criteria, including applications in areas where the fire return interval is greater than 20 years and on other land uses, use 00N (which would not be a CSAF mitigation activity).**
367	Roofs and Covers (number)	01N	Capture Biogas — Place a rigid, semirigid, or flexible manufactured membrane, composite material, or roof structure placed over a waste management facility to capture biogas and reduce odor.	• Use 01N when specifically planning a waste facility cover to capture biogas. When implemented this way, the practice can lead to reduced CH_4 emissions as biogas is captured and either flared or used as a natural gas substitute, as compared to an uncovered anaerobic lagoon or liquid storage system. • **For other applications, such as a rain exclusion cover, use the appropriate narrative (which would not be a CSAF mitigation activity).**
372	Combustion System Improvement	02N	Stationary engine to electric motor replacement or repower — Replace or repower an existing stationary engine with an electric motor.	• Use 02N when specifically replacing or repowering an existing diesel or gas-powered stationary engine (e.g., irrigation engine, emergency generator, etc.) with an electric motor. • Use 05N when specifically replacing existing on-farm mobile equipment (e.g., tractor, loader, forklift, etc.) powered by an internal combustion engine with a new mobile device powered by an electric motor. • **For other applications of this practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**
		05N	Mobile internal combustion engine to electric motor replacement — Replace an existing on-farm mobile device (i.e., tractor, loader, forklift, etc.) powered by an internal combustion engine with a new mobile device powered by an electric motor.	

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
381	Silvopasture (acres)	01N	Establishment - Establish desired woody plant species and forage resources for livestock.	• Use 01N when specifically establishing desired woody plant species and forage resources on pasture or cropland for livestock. When implemented this way, the practice is expected to increase biomass carbon stocks and enhance soil carbon stocks over time. • **When using the practice to manage existing tree canopy and forage resources for livestock, including through tree removal and maintenance of reduced tree stocking levels, use narrative 00N, which would not be a CSAF mitigation activity as doing so would remove stored carbon and reduce potential for sequestering and storing carbon on the site.**
430	Irrigation Pipeline (feet)	01N	Replacement of an earthen channel that is supplied by pumping water with a closed conduit, resulting in enhanced conveyance efficiency and reduced fossil fuel energy use.	• Use 01N when specifically replacing an earthen channel system with a closed conduit system supplied irrigation water by a pumping plant. When implemented this way, this practice enables more efficient water conveyance due to reduced seepage and evaporation, which in turn would result in fossil fuel energy savings that, in most cases, would lead to GHG emission reductions. • The system must not currently be supplied water solely by a renewable energy driven pumping plant to provide expected energy savings. • Additional criteria in the practice standard to meet the purpose of reducing energy use is required to be met when using this narrative and to be considered a mitigation activity. • Because the potential mitigation benefits from energy efficiency and reduction assume a baseline scenario that relies on a fossil fuel-based energy source, some areas of the country (i.e., those already using solely renewable or nuclear energy sources) would therefore not realize any GHG emissions benefits from the implementation of this practice. Planners must consider local energy sources when planning the practice as a CSAF mitigation activity; existing system must not be solely powered by a renewable or nuclear energy source. • When considering downstream flows of irrigation water, if in the planner's judgment there is a reasonable likelihood that irrigation water saved through this practice will be used downstream, this practice may not result in the desired overall GHG emissions reductions. • **For other applications of the practice, use 00N (which would not be a CSAF mitigation activity).**
441	Irrigation System, Microirrigation (acres)	02N	Switching from higher to lower pressure irrigation system, resulting in enhanced application efficiency and reduced fossil fuel energy use.	• Use 02N when specifically switching an existing system from a higher to lower pressure micro-irrigation system. When implemented this way, this practice enables more precise and efficient water use which would result in fossil fuel energy savings that, in most cases, would lead to GHG emission reductions. • Only applicable when changes are made to an existing system that is not supplied water solely by a renewable energy driven pumping plant. Do not use for implementation of a new irrigation system. • Practice implementation should not result in increased irrigated acres on the operation. • Because the potential mitigation benefits from energy efficiency and reduction assume a baseline scenario that relies on a fossil fuel-based energy source, some areas of the country (i.e., those already using solely renewable or nuclear energy sources) would therefore not realize any GHG emissions benefits from the implementation of this practice. Planners must consider local energy sources when planning the practice as a CSAF mitigation activity; existing system must not be powered solely by a renewable or nuclear energy source. • **For other applications of the practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
442	Sprinkler System (acres)	02N	Utilization of variable rate irrigation (VRI) technology resulting in enhanced application efficiency and reduced fossil fuel energy use.	• Use 02N when specifically using the practice to use variable rate irrigation (VRI) technology resulting in enhanced application efficiency and reduced fossil fuel energy use. • Use 03N when specifically using the practice to switch from higher to lower pressure irrigation systems resulting in enhanced application efficiency and reduced fossil fuel energy use. • Use 04N when specifically using the practice to renozzle the sprinkler head resulting in enhanced application efficiency and reduced fossil fuel energy use. • When using narratives 02N, 03N, and 04N, this practice enables more precise and efficient water use which in turn would result in fossil fuel energy savings that, in most cases, would lead to GHG emission reductions. • Practice implementation should not result in increased irrigated acres on the operation. • Additional criteria regarding the analysis of pressure, flow rate, seasonal hours of operation, and application depth in the practice standard to meet the purpose of reducing energy use is required to be met when using this narrative and to be considered a mitigation activity. • Because the potential mitigation benefits from energy efficiency and reduction assume a baseline scenario that relies on a fossil fuel-based energy source, some areas of the country (i.e., those already using solely renewable or nuclear energy sources) would not realize any GHG emissions benefits from the implementation of this practice. Planners must consider local energy sources when planning the practice as a CSAF mitigation activity; existing system must not be solely powered by a renewable or nuclear energy source. • When considering downstream flows of irrigation water, if in the planner's judgment there is a reasonable likelihood that irrigation water saved through this practice will be used downstream, this practice may not result in the desired overall GHG emissions reductions. • **For other applications of the practice that do not meet the criteria above, use the appropriate narrative (which would not be a CSAF mitigation activity).**
		03N	Switching from higher to lower pressure irrigation systems resulting in enhanced application efficiency and reduced fossil fuel energy use.	
		04N	Renozzling sprinkler head resulting in enhanced application efficiency and reduced fossil fuel energy use.	
449	Irrigation Water Management (acres)	03N	Managing water levels in rice fields to include dry down between full flood conditions prior to re-flooding (alternated wetting and drying) to minimize greenhouse gas production in accordance with an irrigation water management plan.	• Use 03N only when implementing the practice as part of an alternated wetting and drying (AWD) system in rice fields. When implemented this way, this practice may reduce CH_4 emissions from rice production. • **For other applications of the practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**
484	Mulching (acres)	02N	Natural Material- Apply only natural mulch materials for full or partial soil coverage.	• Use 02N when specifically applying natural mulches. When implemented mulch application is expected to improve soil organic matter and increase carbon stocks. • The main natural types of mulches include: straw, hay, pine needles, woody residue (shredded), woody residue (chopped). • **Other mulch materials applied for this practice are not a CSAF mitigation activity.**

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
533	Pumping Plant (number)	02N	Replacing existing pumps with high-efficiency pump.	• Use 02N when specifically using the practice to replace an existing pump with a higher-efficiency pump. When implemented this way, this practice increases pump efficiency, which in turn would result in energy savings that, in most cases, would lead to emission reductions. • Additional criteria in the practice standard to meet the purpose of reducing energy use is required to be met when using this narrative and to be considered a mitigation activity, including but not limited to meeting or exceeding the Nebraska Pumping Plant Performance Criteria for fossil fuel or electrical grid powered pumping plants. • Because the potential mitigation benefits from energy efficiency and reduction assume baseline scenarios that rely on a fossil fuel-based energy source; some areas of the country (i.e., those already using solely renewable or nuclear energy sources) would therefore not realize any GHG emissions benefits from the implementation of this practice. Planners must consider local energy sources when planning the practice as a CSAF mitigation activity; existing system must not be powered solely by a renewable energy or nuclear source. • If the objective is switching the power source for the pumping system and not replacing the pump itself with a high-efficiency pump, CPS Combustion System • Improvement (Code 372) should be considered. Where payment scenarios for CPS Code 372 do not adequately support switching power sources due to the size of the pump system, CPS Code 533 can be used as applicable. If the narrative is used to switch from a diesel source to an on-farm renewable power source thereby eliminating fossil fuel associated emissions, additional criteria to reduce energy used is not required. • **For other applications of the practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**
554	Drainage Water Management (acres)	03N	Drainage Water Management is conducted on cultivated organic soils to raise the groundwater table in the non-growing season.	• Use 03N when specifically using the practice to implement drainage water management on cultivated organic soils to raise the water table in the non-growing season. When implemented this way the practice is expected to reduce carbon dioxide (CO_2) emissions, while maintaining crop productivity. Fields must contain existing drainage systems; this practice should not result in increased drainage acres on the operation. • Use appropriate data layers to determine soil type to support determination of site applicability. • Consider the likelihood of methane emissions when water tables are maintained close to or above the peat surface when establishing non-growing season water table elevations. • Additional criteria in the practice standard to meet the purpose of reducing oxidation of organic matter in soils is required to be met when using this narrative and to be considered a mitigation activity. • **For other applications of the practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**
592	Feed Management (animal unit)	03N	Reduce enteric methane emissions from animal feeding operations by manipulating the quantity and quality of dietary nutrients, incorporating feed additives and feed ingredients, or adjusting concentrate to forage ratio in livestock and poultry diets to lower methane produced and emitted during digestion.	• Use 03N when specifically using the practice to reduce enteric CH_4 emissions from animal feeding operations by manipulating the quantity and quality of dietary nutrients, incorporating feed additives and feed ingredients, or adjusting concentrate to forage ratio in livestock and poultry diets to lower CH_4 produced and emitted during digestion. When implemented this way, this practice can lead to reduced enteric CH_4 emissions through adjustments in animal feed and management, diet formulation, and feed additives that influence CH_4 production during animal digestion. • **For applications of the practice other than methane reduction, use the appropriate narrative (which would not be a CSAF mitigation activity).**
604	Saturated Buffer (feet)	02N	Replacement of a cultivated riparian area with an optimized saturated buffer system.	• Use 02N only when implementing the practice in a way that replaces a cultivated riparian area with an optimized saturated buffer system with perennial vegetation. When implemented this way, this practice can lead to increased carbon sequestration in soils and perennial biomass, as well as minor N_2O emissions reductions associated with the reduced fertilizer application on the formerly-cultivated cropland and nitrogen scavenging of nitrogen runoff. • **For any other implementation of the practice, use 00N (which would not be a CSAF mitigation activity).**

Code	Conservation Practice Standard Name (practice unit)	Narrative		Additional Planner Guidance/Applicability of the Practice
643	Restoration of Rare or Declining Natural Communities (acres)	01N	Restoration of streams and associated floodplains using low-tech structures (such as beaver dam analogs or other stick-and-stone structures) to kick-start natural ecological and hydrologic processes required for maintenance of healthy and functioning streams and associated floodplains.	• Use 01N only when implementing the practice to restore streams and associated floodplains using low-tech structures to kick-start natural ecological and hydrologic processes required for maintenance of healthy and functioning streams and associated floodplains. When implemented this way, this practice can revitalize hydrologic conditions that limit the decomposition and extend the residence time of soil organic carbon stocks and enhance organic matter input from regenerated riparian vegetation, leading to increased carbon sequestration. • Use 02N only when implementing the practice to restore oyster reefs on shallow, subtidal, subaqueous soils without harvest of oysters. When implemented this way, this practice can reduce the availability of carbon and nitrogen by removal, assimilation into oyster biomass, and burial, in addition to nutrient removal through nitrogen burial and promoting microbial conditions that promote denitrification in nearby subaqueous soils. • **For other applications of this practice, use the appropriate narrative (which would not be a CSAF mitigation activity).**
		02N	Restoration of an oyster reef on shallow subtidal, subaqueous soils without harvest.	
657	Wetland Restoration (acres)	01N	Restoration of a previously drained wetland on temperate or boreal histosols.	• Use 01N only when implementing the practice to restore previously drained wetlands on temperate and boreal histosols. When implemented this way, the practice is expected to result in lower net greenhouse gas emissions through a decrease in CO_2 emissions related to the oxidation of soil carbon and enhancement of its function as a carbon sink, despite an increase in potential CH_4 emissions. • Use appropriate data layers to determine soil type and climate region to support determination of applicability • Tropical histosols are not applicable at this time. • **For any other implementation of the practice, use 00N (which would not be a CSAF mitigation activity).**

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