



Montana Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2024



Highlighted activities have been added to the list in FY2024.

Noted activities are added to the list as "provisional."^[1]

Mitigation Categories	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Soil Health	327	Conservation Cover (acres)	E327A	Conservation cover for pollinators and beneficial insects ^[2]
			E327B	Establish Monarch butterfly habitat
	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
			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
	336	Soil Carbon Amendment (acres) ^[1]	None Available	
	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
			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			

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Soil Health	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
	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
	393	Filter Strips (acres)	E393A	Extend existing filter strip to reduce water quality impacts
	412	Grassed Waterways (acres)	E412A	Enhance a grassed waterway
	484	Mulching (acres)	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	
585	Stripcropping (acres)		None Available	
603	Herbaceous Wind Barriers (feet)		None Available	
Nitrogen Management	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
Livestock Partnership	317	Composting Facility (number) ^[1]		None Available
	313	Waste Storage Facility (number) ^[1] • Used to implement compost bedded-pack ^[4]		None Available
				None Available

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Mitigation Categories	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Livestock Partnership	367	Roofs and Covers (number) ^[1] <ul style="list-style-type: none"> Used to cover a waste management facility to capture biogas^[4] 	None Available	
	632	Waste Separation Facility (number) ^[1]	None Available	
Grazing and Pasture	314	Brush Management (acres) ^[1] <ul style="list-style-type: none"> Used to remove woody invasive vegetation and the removed material will be mechanically treated and left onsite^[4] 	E314A	Brush management to improve wildlife habitat ^[1]
	315	Herbaceous Weed Treatment (acres) ^[1] <ul style="list-style-type: none"> Used to release desired deep rooted perennial species^[4]. 	E315A	Herbaceous weed treatment to create desired plant communities consistent with the ecological site*
	338	Prescribed Burning (acres) ^[1]	E338A	Strategically planned, patch burning for grazing distribution and wildlife habitat ^[1]
	512	Pasture and Hay Planting (acres)	E512A	Cropland conversion to grass-based agriculture to reduce soil erosion
			E512B	Forage plantings that help increase organic matter in depleted soils
			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	
		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	

Mitigation Categories	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Grazing and Pasture	528	Prescribed Grazing (acres)	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		
	550	Range Planting (acres)	E550A	Range planting for increasing/maintaining organic matter
E550B			Range planting for improving forage, browse, or cover for wildlife	
Agroforestry, Forestry and Wildlife Habitat	311	Alley Cropping (acres)	None Available	
	342	Critical Area Planting (acres)	None Available	
	380	Windbreaks/Shelterbelt Establishment and Renovation (feet)	None Available	
	381	Silvopasture (acres)	E381A	Silvopasture to improve wildlife habitat
	383	Fuel Break (acres) ^[1]	E383A	Grazing-maintained fuel break to reduce the risk of fire ^[1]
	384	Woody Residue Treatment (acres) ^[1]	E384A	Biochar production from woody residue ^[1]
	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
420	Wildlife Habitat Planting (acres) ^[1]	E420A	Establish pollinator habitat ^[1]	
422	Hedgerow Planting (feet) CSP Practice Only	None Available		

Mitigation Categories	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Agroforestry, Forestry and Wildlife Habitat	612	Tree-Shrub Establishment (acres)	E612B	Planting for high carbon sequestration rate
			E612C	Establishing tree/shrub species to restore native plant communities
			E612G	Tree/shrub planting for wildlife food
	643	Restoration of Rare or Declining Natural Communities (ac) ^[1] <ul style="list-style-type: none"> Used to restore floodplain hydrology ^[4] 	E643D	Low-tech process-based restoration to enhance floodplain connectivity ^[1]
	666	Forest Stand Improvement (acres) ^[1]	E666A	Maintaining and improving forest soil quality ^[1]
			E666D	Forest management to enhance understory vegetation ^[1]
			E666E	Reduce height of the forest understory to limit wildfire risk ^[1]
			E666F	Reduce forest stand density to create open stand structure ^[1]
			E666H	Increase on-site carbon storage ^[1]
			E666K	Creating structural diversity with patch openings ^[1]
E666P	Summer roosting habitat for native forest-dwelling bat species ^[1]			
Energy, Combustion, & Electricity Efficiency	374	Energy Efficient Agricultural Operation (number) ^[1]	None Available	
	430	Irrigation Pipeline (feet) ^[1] <ul style="list-style-type: none"> Used to reduce energy use^[4] 	None Available	
	441	Irrigation System, Microirrigation (acres) ^[1] <ul style="list-style-type: none"> Used to reduce energy use^[4] 	None Available	
	442	Sprinkler System (acres) ^[1] <ul style="list-style-type: none"> Used to reduce energy use ^[4] 	None Available	
	533	Pumping Plant (number) ^[1] <ul style="list-style-type: none"> Used to reduce energy use^[4] 	E533C	Install VFDs on pumps ^[1]
			E533D	Complete pumping plant evaluation for energy savings ^[1]
	672	Energy Efficient Building Envelope (number) ^[1]	None Available	

Mitigation Categories	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Energy, Combustion, & Electricity Efficiency	670	Energy Efficient Lighting System (number) ^[1]		None Available
Wetlands	657	Wetland Restoration (acres) ^[1]		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), or Irrigation Water Management (449). 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).

[1] Provisional activities and their associated enhancements are added under the premise that they may provide benefits, and a quantification methodology will be evaluated during the fiscal year. Practices may be removed from the mitigation practice list in a subsequent fiscal year if quantification is not possible. Unless otherwise noted, listed practices have quantifiable carbon sequestration and/or GHG reduction methodologies described in COMET-Planner (comet-planner.com). New practices will be added as science progresses and scientifically defensible quantification methodologies are identified to accompany existing and new NRCS conservation practice standards.

[2] 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.

[3] The following were removed from the list for FY2024: Conservation Practice Standard Upland Wildlife Habitat and Management (Code 645) and Enhancements (E645B) Manage existing shrub thickets to provide adequate shelter for wildlife, (E645C) Edge feathering for wildlife cover, (E328G) Crop rotation on recently converted CRP grass/legume cover for soil organic matter improvement, (E528D) Grazing management for improving quantity and quality of food or cover and shelter for wildlife, and (E528E) Improved grazing management for enhanced plant structure and composition for wildlife. Two enhancements were archived and are no longer available within CSP: (E512E) Forage and biomass planting that produces feedstock for biofuels or energy production and (E512K) Establishing native species into forage base to improve diversity for both livestock and wildlife. Bundles for CSP are no longer listed in this document, refer to program guidance for CSP information on the use of appropriate bundles.

[4] The practice is considered a mitigation activity only when implemented in the stiontionpecified way. A brief description of the specific implementation is identified and associated narratives for conservation planning purposes are included at the end of the document. When a specific implementation is not specified, any narrative of the practice may be used for planning under the assumption that it will provide mitigation benefits.

NRCS Narrative Crosswalk for Conservation Planners

Code	Conservation Practice Standard	Code	Narrative
313	Waste Storage Structure	01N	Compost Bedded Pack waste storage facility - a livestock agricultural waste storage fabricated structure where manure is composted within the animal housing Only scenario #28 is eligible.
314	Brush Management	03N	Remove woody (non-herbaceous and succulent) invasive vegetation to maintain or enhance deep rooted native perennial grass and forb communities, woody material will be mechanically treated/chipped and left onsite to mitigate above ground carbon loss All scenarios are eligible, <u>IF woody material is treated/chipped AND left onsite.</u>
315	Herbaceous Weed Treatment	01N	Removal of herbaceous weeds to release desired deep rooted perennial grass and forb species All scenarios are eligible.
367	Roofs and Covers	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 Only scenario #4 is eligible.
430	Irrigation Pipeline	01N	Replacement of an earthen channel that is supplied by pumping water with a closed conduit, resulting in enhanced conveyance efficiency and reduced energy use Only scenarios #1-11, 65, 106, 107 are eligible, <u>IF there is a reduction in energy use.</u>
441	Irrigation System, Microirrigation	01N	Switching from higher to lower pressure irrigation system, resulting in enhanced application efficiency and reduced energy use All scenarios are eligible, <u>IF there is a reduction in energy use.</u>
442	Sprinkler System	02N	Utilization of variable rate irrigation (VRI) technology, switching from higher to lower pressure irrigation systems, and sprinkler head renozzling without increasing irrigated acres, resulting in enhanced application efficiency and reduced energy use Only scenarios #77, 78, 92 are eligible, <u>IF there is a reduction in energy use.</u>
533	Pumping Plant	02N	Replacing existing pumps with high-efficiency pump Only scenarios #1, 10-14, 17, 70, 71, 78, 79 are eligible, <u>IF there is an increase in efficiency.</u>
643	Restoration of Rare or Declining Natural Communities	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 Only scenarios #33 and 52 are eligible.