Idaho 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 ^[5]	Code	Conservation Practice Standard Name[2] [3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Soil Health	<u>327</u>	Conservation Cover (acres)	E327A	Conservation cover for pollinators and beneficial insects ^[2]
			E327B	Establish Monarch butterfly habitat
	328	Conservation Crop Rotation	E328A	Resource conserving crop rotation
		(acres)	E328B	Improved resource conserving crop rotation
			E328E	Soil health crop rotation
			E328F	Modifications to improve soil health and increase soil organic matter
			E328N	Intercropping to improve soil health
	<u>329</u>	Residue and Tillage	E329A	No till to reduce soil erosion
		Management, No Till (acres)	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
	<u>332</u>	Contour Buffer Strips (acres)		None Available
	<u>336</u>	Soil Carbon Amendment (acres)*		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
			<u>E340C</u>	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
			<u>E340G</u>	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
	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

Mitigation Categories [5]	Code	Conservation Practice Standard Name ^{[2] [3]} (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Soil Health	<u>386</u>	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
			<u>E386E</u>	Enhanced field borders to increase wildlife food and habitat along the edge(s) of a field
	<u>393</u>	Filter Strips (acres)	E393A	Extend existing filter strip to reduce water quality impacts
	412	Grassed Waterways (acres)	E412A	Enhance a grassed waterway
	<u>484</u>	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
			E484D	Lowbush Blueberry Mulching for Moisture Management
	<u>585</u>	Stripcropping (acres)		None Available
	601	Vegetative Barriers (feet)		None Available
	603	Herbaceous Wind Barriers (feet)		None Available
Nitrogen Management	<u>590</u>	Nutrient Management (acres)		Improving nutrient uptake efficiency and reducing risk of nutrient losses
			<u>E590B</u>	Reduce risks of nutrient loss to surface water by utilizing precision agriculture technologies
			<u>E590C</u>	Improving nutrient uptake efficiency and reducing risk of nutrient losses on pasture
			<u>E590D</u>	Reduce risks of nutrient losses to surface and groundwater by increasing setback awareness via precision technology
Livestock	<u>317</u>	Composting Facility (number)*		None Available
Partnership	<u>313</u>	Waste Storage Facility (number)* Used to implement compost bedded-pack ^[4]	None Available	
	<u>366</u>	Anaerobic Digester (number)	None Available	
	<u>367</u>	Roofs and Covers (number)* Used to cover a waste management facility to capture biogas ^[4]	None Available	
	<u>592</u>	Feed Management (animal unit)* Used to reduce enteric methane emissions [4]		None Available
	<u>632</u>	Waste Separation Facility (number)*		None Available

Mitigation Categories ^[5]	Code	Conservation Practice Standard Name[2][3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Grazing and Pasture	314	 Brush Management (acres)* Used to remove woody invasive vegetation and the removed material will be mechanically treated and left onsite [4] 	<u>E314A</u>	Brush management to improve wildlife habitat*
	315	Herbaceous Weed Treatment (acres)* • Used to release desired deep rooted perennial species .	E315A	Herbaceous weed treatment to create desired plant communities consistent with the ecological site*
	338	Prescribed Burning (acres)*	E338A	Strategically planned, patch burning for grazing distribution and wildlife habitat*
	<u>512</u>	Pasture and Hay Planting (acres)	E512A	Cropland conversion to grass-based agriculture to reduce soil erosion
			<u>E512B</u>	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
			<u>E512I</u>	Establish pollinator and/or beneficial insect and/or monarch habitat
			<u>E512J</u>	Establish wildlife corridors to provide habitat continuity or access to water
			<u>E512M</u>	Forage plantings that improve wildlife habitat cover and shelter or structure and composition
	<u>528</u>	Prescribed Grazing (acres)	<u>E528A</u>	Maintaining quantity and quality of forage for animal health and productivity
			<u>E528F</u>	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
			<u>E5280</u>	Clipping mature forages to set back vegetative growth for improved forage quality

Mitigation Categories ^[5]	Code	Conservation Practice Standard Name[2] [3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Grazing and Pasture	<u>528</u>	Prescribed Grazing (acres)	<u>E528P</u>	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
	<u>550</u>	Range Planting (acres)	<u>E550A</u>	Range planting for increasing/maintaining organic matter
			<u>E550B</u>	Range planting for improving forage, browse, or cover for wildlife
Agroforestry,	311	Alley Cropping (acres)		None Available
Forestry and Wildlife	<u>342</u>	Critical Area Planting (acres)		None Available
Habitat	<u>379</u>	Forest Farming (acres)		None Available
	<u>380</u>	Windbreaks/Shelterbelt Establishment and Renovation (feet)		None Available
	<u>381</u>	Silvopasture (acres)	E381A	Silvopasture to improve wildlife habitat
	<u>383</u>	Fuel Break (acres)*	E383A	Grazing-maintained fuel break to reduce the risk of fire*
	<u>384</u>	Woody Residue Treatment (acres)*	E384A	Biochar production from woody residue*
	<u>390</u>	Riparian Herbaceous Cover (acres)	<u>E390A</u>	Increase riparian herbaceous cover width for sediment and nutrient reduction
			E390B	Increase riparian herbaceous cover width to enhance wildlife habitat
	<u>391</u>	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)*	<u>E420A</u>	Establish pollinator habitat*
			<u>E420B</u>	Establish monarch butterfly habitat*
	<u>422</u>	Hedgerow Planting (feet)		None Available
	<u>612</u>	Tree-Shrub Establishment (acres)	<u>E612B</u>	Planting for high carbon sequestration rate
			<u>E612C</u>	Establishing tree/shrub species to restore native plant communities
			<u>E612G</u>	Tree/shrub planting for wildlife food
	643	Restoration of Rare or Declining Natural Communities (ac)* Used to restore floodplain hydrology [4]	E643D	Low-tech process-based restoration to enhance floodplain connectivity*
	<u>666</u>	Forest Stand Improvement	<u>E666A</u>	Maintaining and improving forest soil quality*
		(acres)*	<u>E666D</u>	Forest management to enhance understory vegetation*
			E666E	Reduce height of the forest understory to limit wildfire risk*
			<u>E666F</u>	Reduce forest stand density to create open stand structure*

Mitigation Categories [5]	Code	Conservation Practice Standard Name[2] [3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Agroforestry,	<u>666</u>	Forest Stand Improvement (acres)*	<u>E666H</u>	Increase on-site carbon storage*
Forestry and Wildlife			<u>E666I</u>	Crop tree management for mast production*
Habitat			<u>E666K</u>	Creating structural diversity with patch openings*
liabitat			E666P	Summer roosting habitat for native forest-dwelling bat species*
			<u>E666R</u>	Forest songbird habitat maintenance*
Energy, Combustion,	<u>372</u>	Combustion System Improvement (number)	E372A	Switch to Renewable Power Source
& Electricity Efficiency		 Used for stationary or mobile engine replacement or repower to electric motor 	E372B	Renewable Energy Source for Large Internal Combustion Engines
	<u>374</u>	Energy Efficient Agricultural Operation (number)*	None Available	
	<u>430</u>	Irrigation Pipeline (feet)* • Used to reduce energy use [4]	None Available	
	<u>441</u>	Irrigation System, Microirrigation (acres)* • Used to reduce energy use [4]	None Available	
	442	Sprinkler System (acres)* • Used to reduce energy use [4]	None Available	
	<u>533</u>	Pumping Plant (number)* • Used to reduce energy use [4]	E533C	Install VFDs on pumps*
			E533D	Switch Fuel Source for Pumps*
	<u>672</u>	Energy Efficient Building Envelope (number)*	None Available	
	<u>670</u>	Energy Efficient Lighting System (number)*	None Available	
Wetlands	<u>657</u>	Wetland Restoration (acres)*	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] 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 <u>farmers.gov/service-locator</u> 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 specified 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.
- [5] Mitigation categories are for organizational purposes only and do not indicate land use restrictions for the practice.



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
314	Brush Management	03N	Remove woody (non-herbaceous and succulent) invasive vegetation to maintain or enhance deep rooted native perennial grass and forb communities, leaving treated woody material onsite to mitigate above ground carbon loss
315	Herbaceous Weed Treatment	01N	Removal of herbaceous weeds to release desired deep rooted perennial grass and forb species
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
372	Combustion System Improvement	02N	Stationary engine to electric motor replacement or repower - Replace or repower an existing stationary engine with an electric motor
372	Combustion System Improvement	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
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
441	Irrigation System, Microirrigation	02N	Switching from higher to lower pressure irrigation systems without increasing irrigated acres, resulting in enhanced application efficiency and reduced energy use
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
449	Irrigation Water Management	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
533	Pumping Plant	02N	Replacing existing pumps with high-efficiency pump
592	Feed Management	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
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

