

APPENDICES

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

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	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
			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	
	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
	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

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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)	<u>E386A</u>	Enhanced field borders to reduce soil erosion along the edge(s) of a field
			<u>E386B</u>	Enhanced field borders to increase carbon storage along the edge(s) of the field
			<u>E386C</u>	Enhanced field borders to decrease particulate emissions along the edge(s) of the field
			<u>E386D</u>	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)	<u>E393A</u>	Extend existing filter strip to reduce water quality impacts
	<u>412</u>	Grassed Waterways (acres)	<u>E412A</u>	Enhance a grassed waterway
	<u>484</u>	Mulching (acres)	<u>E484A</u>	Mulching to improve soil health
			<u>E484B</u>	Reduce particulate matter emissions by using orchard or vineyard generated woody materials as mulch
			<u>E484C</u>	Mulching with natural materials in specialty crops for weed control
			<u>E484D</u>	Lowbush Blueberry Mulching for Moisture Management
	<u>585</u>	Stripcropping (acres)	None Available	
	<u>601</u>	Vegetative Barriers (feet)	None Available	
	<u>603</u>	Herbaceous Wind Barriers (feet)	None Available	
Nitrogen Management	<u>590</u>	Nutrient Management (acres)	<u>E590A</u>	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 Partnership	<u>317</u>	Composting Facility (number)*	None Available	
	<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	

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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)* <ul style="list-style-type: none"> Used to remove woody invasive vegetation and the removed material will be left onsite. ^[4] 	E314A	Brush management to improve wildlife habitat*
	315	Herbaceous Weed Treatment (acres)* <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)*	E338A	Strategically planned, patch burning for grazing distribution and wildlife habitat*
	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
			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

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Grazing and Pasture	528	Prescribed Grazing (acres)	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
	379	Forest Farming (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)*	E383A	Grazing-maintained fuel break to reduce the risk of fire*
	384	Woody Residue Treatment (acres)*	E384A	Biochar production from woody residue*
	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)*	E420A	Establish pollinator habitat*
			E420B	Establish monarch butterfly habitat*
	422	Hedgerow Planting (feet)		None Available
	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)* • Used to restore floodplain hydrology ^[4]	E643D	Low-tech process-based restoration to enhance floodplain connectivity*
	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*

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Mitigation Categories ^[5]	Code	Conservation Practice Standard Name ^[2] ^[3] (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Agroforestry, Forestry and Wildlife Habitat	666	Forest Stand Improvement (acres)*	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*
			E666P	Summer roosting habitat for native forest-dwelling bat species*
			E666R	Forest songbird habitat maintenance*
			E666S	Facilitating longleaf pine regeneration and establishment*
Restoration of Disturbed Lands	453	Land Reclamation, Landslide Treatment (acres)	None Available	
	543	Land Reclamation, Abandoned Mined Land (acres)	None Available	
Energy, Combustion, & Electricity Efficiency	372	Combustion System Improvement (number) • Used for stationary or mobile engine replacement or repower to electric motor	E372A	Switch to Renewable Power Source
			E372B	Renewable Energy Source for Large Internal Combustion Engines
	374	Energy Efficient Agricultural Operation (number)*	None Available	
	430	Irrigation Pipeline (feet)* • Used to reduce energy use ^[4]	None Available	
	441	Irrigation System, Microirrigation (acres)* • Used to reduce energy use ^[4]	None Available	
	442	Sprinkler System (acres)* • Used to reduce energy use ^[4]	None Available	
	533	Pumping Plant (number)* • Used to reduce energy use ^[4]	E533C	Install VFDs on pumps*
			E533D	Switch fuel source for pumps*
	672	Energy Efficient Building Envelope (number)*	None Available	
	670	Energy Efficient Lighting System (number)*	None Available	
Wetlands	657	Wetland Restoration (acres)*	None Available	
Rice	449	Irrigation Water Management (acres)* • Used as part of an alternated wetting and drying (AWD) system in rice fields	E449B	Alternated Wetting and Drying (AWD) of rice fields*

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 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 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.

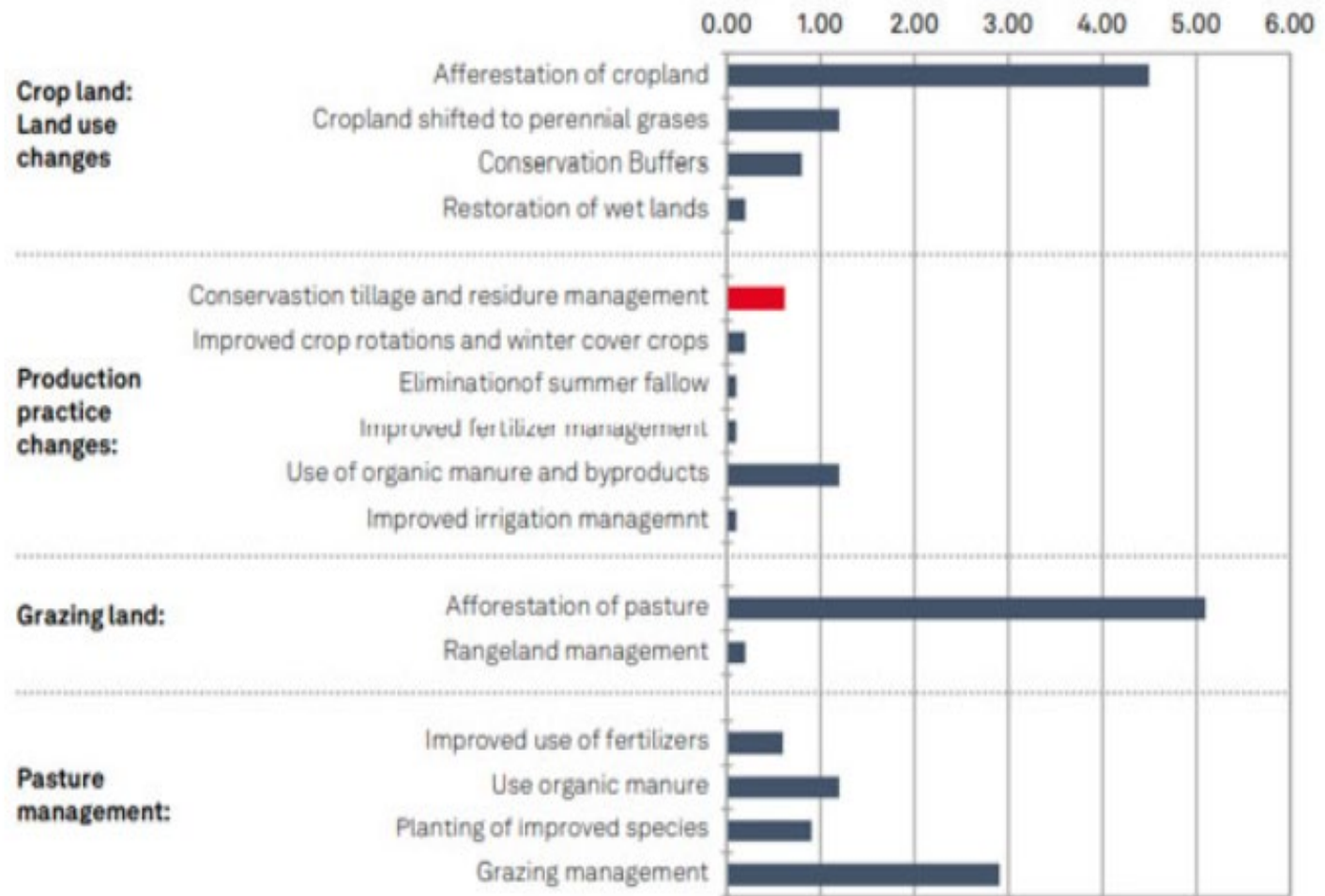


NRCS Narrative Crosswalk for Conservation Planners

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	Remove or treat 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 pump with high-efficiency pump resulting in reduced energy use
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

Range of Carbon Sequestration Equivalent Estimates for CSPs

Range of Carbon Sequestration Equivalent Estimates for CSPs



Source: S&P Global, 2022

COMET Planner Estimates

COMET-Planner Estimates

Location (County)	Conservation Practice Standard (CPS)	Practice Implementation	Tonnes CO2 equivalent/yr./acre
Sussex	Tree/Shrub Establishment (CPS 612)	Conversion of annual grassland to farm woodlot (mixed hardwood)	5.14
Sussex		Conversion of annual grassland to farm woodlot (conifer)	6.14
Gloucester	Tree/Shrub Establishment (CPS 612)	Conversion of annual grassland to farm woodlot (mixed hardwood)	9.71
Gloucester		Conversion of annual grassland to farm woodlot (conifer)	6.27
Somerset	Tree/Shrub Establishment (CPS 612)	Conversion of annual grassland to farm woodlot (mixed hardwood)	9.71
Somerset		Conversion of annual grassland to farm woodlot (conifer)	6.27
Sussex	Prescribed grazing (CPS 528) +Replace synthetic N with compost C:N=25 (CPS 590)	On non irrigated pasture	0.38
Gloucester	Prescribed grazing (CPS 528) +Replace synthetic N with compost C:N=25 (CPS 590)	Irrigated pasture	0.43
Cropland Management			
Gloucester	Cover Crop (CPS 340)	Add non-legume with 25% N fertilizer reduction to irrigated cropland	0.29
Gloucester	Cover Crop (CPS 340)	Add legume cover crop with 50% N fertilizer reduction to irrigated cropland	0.64
Sussex	Cover Crop (CPS 340)	Add legume cover crop with 50% N fertilizer reduction to No-till non-irrigated cropland	0.18
Sussex	Cover Crop (CPS 340)	Add non-legume cover crop with 25% N fertilizer reduction to no-till non-irrigated cropland	0.06
Sussex-Gloucester	Conservation Crop Rotation (CPS 328)	Decrease fallow frequency or add perennial crops to rotations	0.22
Sussex-Gloucester	Strip-cropping (CPS 585)	Add perennial cover grown in strips with irrigated annual crops	0.24
Sussex-Gloucester	Strip-cropping (CPS 585)	Add perennial cover grown in strips with non-irrigated annual crops	0.24

Sussex	Reduced Till (CPS 345)	Intensive till to reduced till on non-irrigated cropland	0.14-Gloucester 0.24
Sussex	Reduced Till (CPS 345)	Intensive till to reduced till on irrigated cropland	0.35- Gloucester 0.31
Cropland to Herbaceous Cover			
Gloucester	Herbaceous Wind Barriers (CPS 603)	Convert strips of irrigated cropland to permanent unfertilized grass/legume cover	1.44

Optional Budget Spreadsheet

Optional Budget Spreadsheet

Categories		Year 1	Year 2	Year 3	Year 4	Year 5	Subtotals
Personnel							
Director	Frank Minch, 4% (\$67.48 x 70 hours)	\$4,723.60	\$4,959.78	\$5,207.77	\$5,468.16	\$5,741.57	\$958,242.81
Program Coord.	Rachel DeFlumeri, 23% (\$39.1 x 420 hours)	\$16,422.00	\$17,243.10	\$18,105.26	\$19,010.52	\$19,961.04	
program oversight	Sandra Howland, 8% (\$61.62 x 140 hours)	\$8,626.80	\$9,058.14	\$9,511.05	\$9,986.60	\$10,485.93	
Program Admin.	Diana Diaz, 55% (32.93 x 1000 hours)	\$32,930.00	\$34,576.50	\$36,305.33	\$38,120.59	\$40,026.62	
Technical Asstnc.	Kelly Steimle, 15% (\$51.91 x 280 hours)	\$14,534.80	\$15,261.54	\$16,024.62	\$16,825.85	\$17,667.14	
Program Support	Sara Mellor, 15% (\$37.57 x 280 hours)	\$10,519.60	\$11,045.58	\$11,597.86	\$12,177.75	\$12,786.64	
Reporting	Deelip Mhaske, 8% (\$42.24 x 140 hours)	\$5,913.60	\$6,209.28	\$6,519.74	\$6,845.73	\$7,188.02	
Financial Officer	David Giallella, 4% (\$67.82 x 70 hours)	\$4,747.40	\$4,984.77	\$5,234.01	\$5,495.71	\$5,770.49	
Program Admin & Support	New Hire (FTE)	\$75,000.00	\$78,750.00	\$82,687.50	\$86,821.88	\$91,162.97	
	(*base salary plus 5% increase annually)						
Fringe	FY2024 Rate, 69.5%	\$120,525.37	\$126,551.64	\$132,879.22	\$139,523.18	\$146,499.34	\$665,978.76
Travel	8000 miles annually (200 miles to 40 farms (16%) at \$0.67 per mile)	\$5,360.00	\$5,360.00	\$5,360.00	\$5,360.00	\$5,360.00	\$59,760.00
	Conference attendance 2 staff, 2x/yr airfare -\$1000 ea. x 2 staff x 2 trips = \$4,000 Hotel accommodations -\$250 per night for 3 nights x 2 staff x 2 trips = \$1,992 Transport - \$150 x 2 staff x 2 trips = \$600 Total/yr= \$6,592	\$6,592.00	\$6,592.00	\$6,592.00	\$6,592.00	\$6,592.00	
Equipment	Aerial Imagery software (nearmap)	\$62,000.00	\$62,000.00	\$62,000.00	\$62,000.00	\$62,000.00	\$310,000.00
Supplies	office and event supplies	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$5,000.00
Other	Printing and mailing services, including postage	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$37,500.00
	Website/Media Development	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	
Contractual	CCSP - Cost share for practices up to 17,491 acres / 244 contracts	\$2,378,076.40	\$2,378,076.40	\$2,378,076.40	\$2,378,076.40	\$2,378,076.40	\$11,890,382.00
Total		\$2,754,471.57	\$2,769,168.73	\$2,784,600.75	\$2,800,804.36	\$2,817,818.16	\$13,926,863.57

Team Biographies

Team Biographies

New Jersey Department of Agriculture

www.nj.gov/agriculture/

Position	Staff Name	% of salary	FY2024 Salary
Division Director	Frank Minch	4	\$122,812.67
Program Coordination	Rachel DeFlumeri	23	\$71,160.34
Program Oversight	Sandra Howland	8	\$112,149.92
Program Administration	Diana Diaz	55	\$59,933.78
Technical Assistance	Kelly Steimle	15	\$94,471.45
Program Support	Sara Mellor	15	\$68,385.80
Reporting	Deelip Mhaske	8	\$76,884.52
Financial Officer	David Giallella	4	\$123,424.67

Frank Minch, Division Director

Frank received his bachelor's degree from Rutgers University and has 30 years of experience in soil and water resource management in New Jersey, including work at Freehold Soil Conservation District and the NJ Department of Agriculture. He has been with the New Jersey Department of Agriculture for 20 years and is responsible for managing the Division of Agricultural & Natural Resources. The Division is one of five divisions in the Department and is responsible for a variety of services and programs that maintain and enhance the viability of New Jersey agriculture and related agribusinesses including natural resource conservation assistance, Soil Conservation District coordination and the state soil and water cost share program. He is an active member and regional director of the National Association of State Conservation Agencies.

Rachel DeFlumeri, Agricultural Resource Specialist 2

Earned a Bachelor of Science Degree in Plant Science, with an Applied Horticulture minor from Pennsylvania State University in 2014. I have over 10 years of professional experience within applied agricultural and horticultural research, including commercial agronomic crop breeding production and cultivation. Other areas of expertise include community outreach and education gained from working with Rutgers Cooperative Extension. I have been with NJDA for over three years and have applied my educational background and experience in providing technical assistance to producers, and landowners throughout the State. Other areas of expertise within the Department include land-use planning, policy research, and issuance of technical writing and guidance on local zoning ordinance and State regulations.

Sandra Howland, Research Scientist

A team-oriented leader with a passion for soil science, livestock management, and conservation. 15 years-experience in soil and water science and site characterization. I earned a Bachelor of Science Degree in Agricultural Science, with dual minors in Soil Science and International Agriculture. While pursuing my undergraduate degree, I was employed as a Agricultural Research Technician by USDA ARS as well as a research technician at the University Weed Science Center. Additionally, I have 9 years of professional experience as an Environmental Scientist, and a Master Degree in Environmental Studies from Montclair State University. My current role with the NJ Department of Agriculture includes administration of the Animal Waste Management Regulations and offering compliance assistance to producers. I also interface with many local, state, and federal agencies to assist and develop better conservation planning in our beautiful Garden State. One challenge is unique small farm since in New Jersey and developing conservation practices that match our in-State needs.

Certifications: Associate Professional Soil Scientist (2008); Certified Nutrient Management Specialist (Pennsylvania, 2017); Certified Nutrient Management Planner, Maryland (2021)

Diana Diaz, Administrative Analyst 1

A versatile, results-oriented professional who is highly organized with attention to detail. I received my Bachelor of Science in Business Administration with a minor in Computer Applications from Nova Southeastern University. I have over 16 years' experience in Accounting and Finance and 8 years in Customer Service. My accumulated experiences focus on my ability to gather data from a range of sources and apply that information to developing plans for both the short and long term in a variety of business segments. My work has included interacting with all levels in an organization, providing timely updates on key trending data, analyzing data, and anticipating changes that may be needed to accomplish goals. My current role as an Administrative Analyst at the NJ Department of Agriculture is to review services and program grant applications related to Agriculture and Natural Resource conservation such as the State Soil and Water cost share program and the Conservation Reserve Enhancement program (CREP) to make sure they are eligible, compliant, and meet regulation guidelines, working closely with the State Agriculture Development Committee (SADC), Natural Resources Conservation Service (NRCS), and USDA Farm Service Agency. Additionally, I review and interpret the financial health of the Soil Conservation District's audit reports, reconcile and input key data from the Farmland Assessment Applications into the New Jersey Agriculture Tax Record database for USDA-NASS statistical analyses, and perform departmental special projects when needed.

Kelly Steimle, Agricultural Resource Specialist 1

My academic studies along with the agricultural knowledge I developed from extra-curricular activities such as years spent in a 4-H dairy science club have provided me with an excellent background in livestock management and agricultural operations in New Jersey. Working as an Agricultural Program Assistant for Rutgers University for 6 years allowed me to expand upon my knowledge of livestock farming, herd health and cattle comfort. Additionally, after receiving grant funding from USDA's Risk Management Agency, I was tasked with educating NJ's vegetable, fruit, dairy, and row crop producers about risk management programs and crop insurance, this required me to fine tune my public speaking and outreach skills and I was able to develop and distribute many educational flyers, factsheets and publications. Through this program I was able to gain experience with grant applications and grant

reporting requirements. Furthermore, while at Rutgers I learned to take soil samples, run moisture tests, interpret soil test results and organize, input and interpret data from various agricultural research trails I assisted with at the Rutgers research farms. I was able to take the knowledge and experiences I obtained as a Program Assistant with Rutgers and apply those skills towards my job duties when I started working at the NJ Department of Agriculture as an Agricultural Resource Specialist I. My responsibilities at the NJ Department of Agriculture include investigating and responding to animal waste related complaints, Writing Animal Waste Management Plans and enforcing NJ's animal waste regulations. Additionally, I provide information to landowners regarding permissible on farm agricultural practices, wetland compliance, zoning ordinances and other applicable concerns. I work closely with USDA's federal agency, NRCS to develop Farm Conservation Plans (FCP) for preserved farms participating in the state cost share program, farms utilizing municipal leaf waste as a soil amendment, and farms in NJ with breweries or wineries that wish to land apply their wash water on farm. I also provide regulatory assistance to farms that need to meet compliance with NJ's agricultural statutes and regulatory rules.

Certifications: NRCS Conservation Planner I with Job Approval Authority for the following NRCS practices: Brush Management, Herbaceous Weed Control, Conservation Cover, Conservation Crop Rotation, Residue and Tillage Management; No Till & Reduced Till, Contour Farming, Cover Crop, Critical Area Planting, *Fence, Field Border, Filter Strip, Access Control, Mulching, Pasture and Hay Planting, Nutrient Management, Feed Management, and Tree/Shrub Establishment.*

Sara Mellor, Agricultural Resource Specialist 2

A team-oriented cooperative worker who communicates effectively and enjoys completing tasks independently. I am passionate about access to local produce that promotes overall wellness. While completing my Bachelor of Science degree I interned for the Rutgers Cooperative extension Water Resources Program. My initial task was to research ways to provide outreach regarding water conservation. This developed into assisting with creating a rain barrel program that included conducting workshops in communities throughout New Jersey to provide education on stormwater management while working with attendees to construct rain barrels. While running the rain barrel program we distributed over 3,000 rain barrels working with NJDEP Watershed Ambassadors, the New Jersey Water Supply Authority, green teams, and environmental commissions. My efforts then shifted to developing a rain garden rebate program to provide homeowners a financial incentive to build rain gardens on their properties to capture, treat, and infiltrate runoff while reducing the volume of stormwater that contributes to flooding. Alongside this I worked on grants to install rain gardens on public property around the garden state, having the opportunity to work with youth as well as adults to educate them on native plants, stormwater management, and water conservation.

In 2023 I began working for the New Jersey Department of Agriculture, where I assist farmers with inquiries regarding acquiring or maintaining farmland tax assessment. In addition to this work, I have been working on a NRCS CIG grant where we are collaborating with the NJ Compost Council and Rutgers University to develop a NJ Manure Link website to connect livestock farms (manure generators) and composters with farmers seeking these resources to provide an alternative option from purchasing fertilizer. I am helping with a 319 (h) grant as well that was awarded to implement Animal Waste Management Plans (AWMP) and agriculture best management practices (BMPs) for livestock farms within 100 feet of a water body in the Papakating Creek Watershed located in Sussex County. For each of these grants I am assisting with outreach material creation and grant administration.

Deelip Mhaske, Grants Administrator

Deelip received his Bachelor' of Law degree from Government Law College, Mumbai. He went on to receive a Masters of Social Work from Tata Institute of Social Sciences, Masters' of Philosophy from Indian Institute of Technology, Bombay, Master's of Public Health from Rutgers State University, and Masters of Business Administration from Rutgers School of Business. Deelip's technical knowledge of public policy and administration as well as his years of grant administration are a valuable asset to the NJDA.

Dave Giallella, Administrative Analyst

Received a Bachelor' of Science in Business Administration with a major in Accounting. Worked with the NJ Office of the State Auditor for two years. Currently, acts as the Chief Fiscal Officer for the Department of Agriculture. Also, responsible for budget preparation, point person for the department relative to issues, program administrator /coordinator relative to NJ State programs and non-departmental sites, perform Child Nutrition and related duties for two months each year, review audit reports, perform an array of departmental special projects and programmatic functions, and acts as a financial approval officer.