

State Technical Committee



Natural Resources Conservation Service

New Jersey State Technical Committee
220 Davidson Avenue, 4th Floor, Somerset, NJ 08873

Meeting Date: Wednesday, December 14, 2022

Meeting Location: Microsoft TEAMS

Evan Madlinger opened the Microsoft TEAMS meeting at 9:10 a.m., welcomed everyone, and thanked both employees and partners for their participation.

Those present included:

Arelys Ortiz	Fran DeFiccio	Laura Tessieri
Bea Sabouathone	George Cassaday	Lauren Finnegan
Beth Freiday	Hilary Trotman	Lee Fiocchi
Brian Cowden	Isaac Berg	Maria Collazo
Cali Alexander	Janis Rega	Maryann Tancredi
Chris Adams	Jessica Henry	Michael Flood
Chris Miller	Jill Ott	Mitchell Mickley
Christine Healy	Kaitlin Farbotnik	Mona Peterson
Clare Flanagan	Katelyn Haggar	Morgan Devine
Donald Donnelly	Kathy Hale	Rachel DeFlumeri
Edwin Muniz	Kent Michael	Sandra Howland
Evan Madlinger	Kristin Adams	Sarah Fenwick
		Tara Walker

9:11 Opening Comments on behalf of Julie Hawkins, NRCS State Conservationist – Evan Madlinger, NRCS

Evan brought up a few talking points that Julie asked him to cover. First, the Partnership for Climate Smart Commodities. USDA is working with our American producers to try to grow their agricultural goods in a sustainable and climate-smart way. There is a lot of funding being dedicated to this national effort. A recent announcement highlighted the second wave of funding for 71 projects totaling \$325 million dollars. These figures are in addition to the 141 projects totaling \$3.1 billion dollars. Also, here in NJ, NRCS has a climate-smart commodities partnership with North Jersey RC&D. Laura Tessieri from North Jersey RC&D gave a quick overview of the project.

This project would offer technical assistance and financial cost-share incentives to livestock producers to implement priority climate-smart practices, with higher cost-shares available to underserved producers. This project would provide increased business opportunities for underserved and small farmers to be competitive in purchasing land in a market dominated by corporate sprawl and development pressure. The plan for developing and expanding markets for climate-smart commodities through this project involves the development of a climate-friendly farm certification, a consumer marketing campaign, and the expansion of equitable food access.

The RC&D team went after this national funding during wave one, which is a huge pot that can fund different projects. Wave two has additional funding for smaller pools and has a focus on Historically Underserved (HU) producers or small farmers. In addition to partners like NJ Audubon and Food Source Alliance, there are also smaller partners that help round out the projects with science, modeling, and field verification to look at the climate impact of these projects. RC&D

will work with the producers toward better marketing business plans, budget prep, and better rotational grazing. Rutgers University, Newark has joined the team from a science perspective and ESC for the verification. There is also an equity component where they have partners that will look at the equitable distribution of products that are produced in New Jersey.

Evan then discussed the Inflation Reduction Act (IRA). This is a big piece of legislation that was passed a few months ago and is going to infuse a lot of money into NRCS. The agency has put out a Federal Registry where they have requested input on how they can implement IRA funds. The registry poses five questions for the public to provide input on. Some of these include:

- How can we do a better job of engaging the private sector and private philanthropy to leverage those investments?
- How can the agency target IRA funding to maximize improvements to soil carbon?
- How can we expand our capacity amongst partners to assist in providing financial and technical assistance in support of implementing IRA?

The federal registry is open until December 21, 2022.

The last point Julie asked Evan to discuss was the internal civil rights compliance review for the state. Every few years we go through a rotation where we have civil rights compliance reviews, and New Jersey did well. One question that came out of the review was: How can we increase diversity throughout the conservation districts, the state, and the State Technical Committee? It can be difficult to quantify the diversity since we have different types of partners, different agencies, and different groups that participate. Evan asked if anyone knows someone that would be a good fit for the State Technical Committee to please let him know.

9:20 June 2022 Meeting Minutes Review and Acceptance – Evan Madlinger, NRCS

Evan brought up the minutes from the June 2022 meeting on the TEAMS call to see if there were any corrections, additions, and revisions needed. None were referenced.

9:23 FY2022 Farm Bill Programs – Fran DeFiccio and Katelyn Haggar, NRCS

Fran spoke about the Agricultural Conservation Easement Program (ACEP). In FY22, NRCS closed two general Agricultural Land Easements (ALE), covering 74 acres, and under Wetland Restoration Easements (WRE), we closed one, covering 19 acres. As far as WRE restoration activity, we had \$266,000 worth of new repairs and maintenance on existing easements.

Kate took over the presentation about the floodplain easements topic. NRCS investigated purchasing properties that were severely affected by Hurricane Ida, specifically some in the Township of Cranford in the Orchard Brook floodplain area. Six homes were really affected, including one owner who watched their car float away during the last flooding. We estimated 1.4 million dollars to cover the cost, assuming not everyone would apply. All six homeowners applied for the program, raising our estimates to \$3 million dollars. We are using this instance as a stepping-stone as we have Woodbridge Township on the radar with the Ramapo River floodplain area covering 70 homes in the affected area. There is a designation of \$17 million dollars currently in the works and we are expecting an informational meeting held by the township sometime in January 2023.

Fran resumed.

NRCS has three major financial assistance programs: Agricultural Management Assistance (AMA), Conservation Stewardship Program (CSP), and Environmental Quality Incentives Program (EQIP).

In 2022, NRCS NJ received \$339,066 and obligated 17 contracts for AMA, 1.06 million for 36 contracts obligated for CSP, and 6.89 million for 254 contracts under EQIP. AMA is broken down into three fund codes: Cropland, High Tunnel, and Risk Management Assistance (RMA) for High Tunnel (we are required to keep RMA High Tunnel separate from the other High Tunnel fund code). We also have a separate fund pool for High Tunnel because of the high interest in that practice as well as it being a national initiative.

AMA Cropland received \$120,747 for five contracts, High Tunnel received \$77,193 for five contracts, and RMA High Tunnel received \$141,126 for seven contracts. The CSP program encourages participants to take conservation to the next level by exceeding resource concerns that may already be addressed. NRCS is required to keep agricultural land and forest land separate in CSP, and we must have fund pools for beginning farmers, socially disadvantaged farmers, and those certified or transitioning to organics. We had zero applications for both the organic fund pool and the socially disadvantaged fund pool. The CSP subaccount Agriculture Land - General received \$915,757 for 21 obligated contracts, Agriculture Lands - Beginning Farmer received \$22,552 for two contracts, Non-Industrial Private Forestlands General received \$79,010 for nine contracts, and Non-Industrial Private Forestlands - Beginning Farmers received \$43,217 for four contracts.

EQIP is our biggest financial assistance program and has 26 fund pools associated with it. We have grouped Conservation Planning Activities (CPAs), Design and Implementation Activities (DIAs), and Conservation, Evaluation, and Monitoring Activities (CEMAs) from a funding perspective. Comprehensive Nutrient Management Plans (CNMP) obligated \$79,635 for seven contracts, Nutrient Management Plan (NMP) obligated \$15,118 for three contracts, Forestry Management Plan (FMP) obligated \$163,074 for 89 contracts, and Other (consists of plans like pollinator, energy, organics, and fish and wildlife, for example) obligated \$15,564 for five contracts. Four fund pools within EQIP that are ranked statewide: Organics, Energy, Golden-Winged Warbler, and National Water Quality Initiative - Upper Salem River and Upper Cohansey. Organics obligated \$53,780 for seven contracts in financial assistance (FA), Energy had zero contracts, Golden-Winged Warbler obligated \$71,672 in TA for two contracts, and National Water Quality Initiative - Upper Salem and Upper Cohansey obligated \$235,633 in TA for three contracts.

Other state initiatives listed for reference include: Aquaculture with 1.065 million in FA covering eight contracts, American Black Duck had zero contracts, Bobwhite Quail obligated one contract for \$1,731, Highly Erodible Land had zero contracts, Irrigation obligated three contracts with \$357,066, Livestock had 15 contracts for \$1.221 million, High Tunnel had three contracts for \$479,856, Soil Health had three contracts for \$114,636, Beginning Farmer had 32 contracts for \$1.056 million obligated, and Socially Disadvantaged had eight contracts with \$417,279 (NRCS is required to obligate at least 5% of our allocation to Beginning Farmers and Socially Disadvantaged Farmers). This year the Livestock Initiative combined the North, Central, and South fund pools into a state-wide pool, consolidating for better management.

In addition to fund pools statewide, we also have fund pools by area. In the North (Hackettstown and Frenchtown Service Centers), we funded a total of 40 contracts between the local workgroup (11 contracts for \$318,906), forestry (22 contracts for \$80,399), and wildlife practices (seven contracts for \$70,936). In Central NJ (Freehold and Columbus Service Centers), we funded nine contracts between the local workgroup (six contracts for \$376,072) and forestry (three contracts for \$8,378). In the South (Woodstown and Vineland Service centers), we funded 16 contracts total between the local workgroup (12 contracts for \$508,050), forestry/wildlife (three contracts for \$4,656), and specifically for FY22 we were able to request additional money for Hurricane Ida assistance (one contract for \$80,441).

NRCS NJ signed three Regional Conservation Partnership Program (RCPP) agreements with our partners in FY21. However, due to the timing of the signature, we only began obligating these agreements in FY22. Under RCPP, we obligated \$20,140 for one contract so far under the subcategory "Northern NJ Small Farm Food Link Conservation Project." We also obligated \$7,262 for three contracts under "Protecting Source Water in the Raritan" and \$16,755 for three contracts under "Salem River Bog Turtle Protection and Restoration." Another program offered in FY22 was the Conservation Incentive Contract (CIC), which is a steppingstone between EQIP and CSP. CIC consists of management practices only. We obligated one contract for \$4,094.

This FY's top ten by planned amounts include cover crop, brush management, forest management plans (written), forest stand improvement, high tunnel systems, tree/shrub establishment, bivalve aquaculture gear, and biofouling control, structures for wildlife, mulching, and fence. This year's top ten by dollar amount includes a high tunnel system, cover crop, bivalve aquaculture gear, and biofouling control, roofs and covers, sprinkler system, restoration of rare or declining natural communities, agrichemical handling facility, heavy use area protection, waste storage facility, and fence.

Question – "I saw a couple of categories like soil health and nutrient management plans. Do any of these categories include projects that will include composting/compost utilization?"

Answer – The Soil Health initiative focuses on cover crops and grazing on cropland; the nutrient management plans are dictated by the producer. Soil Health could include compost applications, synthetic fertilizers, and manures (if that's what they use in their operations).

9:30 Update on Program Changes for FY23 – Fran DeFiccio and Evan Madlinger, NRCS

NRCS NJ received its FY23 allocations for Programs in October 2022. The following outlines how the funds are divided up: ACEP-ALE (general) \$1.04 million dollars, ACEP-WRE (general) \$246,098, ACEP-WRE Bog Turtle \$280,168, ACEP-WRE Stewardship \$58,621, AMA \$250,000, CSP Classic \$1 million dollars, CSP Organic \$200,000, CSP Renewal \$300,000, EQIP received \$7.416 million dollars, EQIP NWQI \$350,006, and EQIP GWW \$42,520

NRCS advertised the sign-up for EQIP, AMA, CSP, and RCPP with a deadline of September 23, 2022 for FY23. Applications received by that date will be considered for funding, however, not all applications will be funded due to applicants canceling or deferring to the following year. 424 applications were received statewide – 67 contracts in the Columbus Field Office, 47 contracts for the Freehold Office, 73 contracts for the Frenchtown Office, 137 contracts for the Hackettstown Office, 35 contracts from the Vineland Field Office, and 65 contracts from the Woodstown Field Office.

There are two changes to the EQIP ranking pools, with one addition of Urban and one removal of Highly Erodible Land (HEL). The remaining ranking pools include livestock, irrigation, CIC, organic, energy, aquaculture, American black duck, beginning farmers/socially disadvantaged, bobwhite quail, golden-winged warbler, soil health, high tunnel, NWQI,

Forestry, CNMP, NMP, North (forestry, wildlife, water quality), Central (forestry/wildlife local workgroup), and South (forestry/wildlife, local workgroup).

Another change this fiscal year is a new opportunity called Act Now. Act Now allows NRCS to immediately approve and obligate a ranked application in a designated ranking pool when an eligible application meets or exceeds a state determined minimum ranking score without waiting until the NRCS field office ranks all applications in the ranking pool. We implemented this for the irrigation fund pool and committed \$1 million dollars for applications that rank 70 and above. By December 1, 2022, NJ had 33 applications ranked with five selected for \$812,210. Of the five applications selected for funding, the irrigation history consisted of overhead irrigation being converted to either drip irrigation or pivot irrigation, and these participants are also improving their soil conditioning index score by implementing at least two soil health practices for at least three years.

Evan went over the FY23 CPAs, DIAs, and CEMAs. This information can be found on the Field Office Technical Guide (FOTG) national page. Last year our forestry management plans had been combined into the CPAs and DIAs to make a complete, approved forestry plan (according to NJ standards) due to missing inventory. This year we have migrated the forestry plans back to CPAs. NRCS added a few new CEMAs, one specifically being PFAS (Per- and polyfluoroalkyl substances), which is one of those forever pollutants coming from items like fire retardant foam and non-stick Teflon. PFAS contamination is a problem across the country and with the new CEMA it gives us the potential of testing on farms.

As a reminder, for CPAs and DIAs, you must be an NRCS Technical Service Provider (TSP), which means you need to meet some educational and work experience requirements. At that point, you become something like a third-party vendor where you can write plans, and the landowner pays for it through our system. For example, for PFAS, if you wanted to become a TSP, you would need to be a professional engineer or professional geologist, possess a current license from NJ, a bachelor's degree, and 10 years of experience.

9:50 Farm Service Agency Program Update – Sarah Fenwick, FSA

As an overview, the Farm Service Agency (FSA) has a program called the Conservation Reserve Program (CRP). CRP is a voluntary program that contracts with agricultural producers to take environmentally sensitive land out of agricultural production and devote it to conservation. There are three signup types within CRP: General, Continuous, and Grasslands with Continuous breaking down into the State Acres for Wildlife Enhancement (SAFE) and Conservation Reserve Enhancement Program (CREP). FSA had 1637 acres enrolled in practices with 280 contracts. six practices lost acres (Continuous CREP for grass waterways, the establishment of permanent vegetative cover, filter strips, and riparian buffers; Continuous SAFE for wildlife food plot and rare and declining habitat) while three practices gained acres (Continuous SAFE in the establishment of permanent introduced grasses and legumes, the establishment of permanent native grasses, and vegetative cover – grass – already established).

Conservation Practice	Signup Type	Practice Description	Practice Acres
CP21	Continuous	Filter Strips	7
CP42	Continuous	Pollinator Habitat	13.72
CP8A	Continuous CREP	Grass Waterways	134.31
CP15A	Continuous CREP	Establishment of Permanent Vegetative Cover (Contour Grass Strips)	0.56
CP21	Continuous CREP	Filter Strips	217.21
CP22	Continuous CREP	Riparian Buffer	213.16
CP38B-9	Continuous SAFE	Wetlands-Shallow Water Areas for Wildlife	1.7
CP38C-3	Continuous SAFE	Tree Plantings (Softwood)	51.0
CP38E-1	Continuous SAFE	Establishment of Permanent Introduced Grasses and Legumes	221.05
CP38E-2	Continuous SAFE	Establishment of Permanent Native Grasses	338.25
CP38E-4D	Continuous SAFE	Permanent Wildlife Habitat	61.38
CP38E-10	Continuous SAFE	Vegetative Cover – Grass - Already Established (Practice Was Available Before 03/14/11)	64.03
CP38E-12	Continuous SAFE	Wildlife Food Plot	1
CP38E-25	Continuous SAFE	Rare and Declining Habitat	23.41

CP38E-33	Continuous SAFE	Habitat Buffers for Upland Birds	4.5
CP1	General	Establishment of Permanent Introduced Grasses and Legumes	103.54
CP2	General	Establishment of Permanent Native Grass	37.82
CP12	General	Wildlife Food Plot	0.5
CP42	General	Pollinator Habitat	6.7
CP88	Grasslands	Permanent Native Grasses and Legumes	18.83
CP87A	Grasslands	Permanent Introduced Grasses and Legumes - Livestock	153.70
State Total			1673.37

As of this reporting date, Sarah provided updates to signup types, acres, and acreage percentages.

- Continuous: 20.72 acres, 1%. This number compared to the last meeting has gone down.
- Continuous CREP: 565.24 acres, 34%. This number has gone down from the previous report.
- Continuous SAFE: 766.32 acres, 46%. This number has gone down from the previous report.
- General: 149 acres, 9%. This number has gone up from the previous report.
- Grasslands: 173 acres, 10%. This number has gone up from the previous report.

The total CRP acres are 1637.37 at 100%. The total number of contracts is 280 (which went down from the previous report), with an average rental rate of \$91/ac (which went up from the previous report). The total number of CREP contracts is 210 with an average rental rate of \$160/ac. For SAFE, there is a total of 214.18 acres in AG heritage, 281.84 acres in grasslands, and 270.3 acres in the Raritan-Piedmont partnership. The CRP Grassland has five contracts with an average rental rate of \$20/ac. At the time of this report, there is no update for Emergency Conservation Program (ECP) or Emergency Forest Restoration Program (EFRP).

SAFE has recently gone live. Approximately 13 states have provided a proposal and have received approval, with NJ being one of the 13. The purpose of SAFE is to establish wetlands, grasses, and trees. Proposals are developed by FSA and partners and has a wildlife focus, but it's a good opportunity for farmers with non-ideal cropland (examples of these types of lands include fields that have deer damage and are too wet to the point where the producers can't get a good crop). Some of the partners that participated include NRCS, the Conserve Wildlife Foundation (CWF) of NJ, Ducks Unlimited, D&R Greenway Land Trust, US Fish & Wildlife Service, Pheasants Forever, Quail Forever, NJ Audubon, and Duke Farms.

There is no signup window for SAFE and producers can apply at any time. Eligibility requirements for SAFE include land in the priority zone, must be considered cropland with four years of planting history between 2012-2017, and the contract period runs between 10 and 15 years. There are financial benefits to signing up for SAFE. Signing Incentive Payments (SIP) and Practice Incentive Payments (PIP) are authorized on SAFE offers. SIP is a one-time payment of 32.5% of the first full-year rental payment while PIP is a one-time payment of 20% of the actual eligible costs to install the practice (with an additional 40% to be paid once certification is provided by NRCS when the practice has been established). The only downfall with PIP is the payment limitation, so once a producer hits that limitation, that's it. In addition to those payment incentives, the producer will also get an annual rental payment and they will also receive a cost-share up to 50% of their eligible costs to establish permanent cover. Currently, management activities are not eligible for cost-share.

SAFE also has general practices, which are covered under General CRP, but you don't need to be ranked to participate (General CRP is typically ranked nationwide against producers). These practices include CP-38A Buffers (with CP21 Filter Strips, CP22 Riparian Buffer, and CP43 Prairie Strips), CP38-B Wetlands (with CP9 Shallow Water Acres for Wildlife, CP23 Wetland Restoration and CP23A Wetland Restoration, Non-Floodplain), CP-38C Trees (with CP3 Tree planting, CP25 Rare and Declining Habitat, and CP13 Bottomland Timber Establishment on Wetlands), and CP-38E Grasses (with CP1 Establishment of introduced grasses and legumes, CP2 Establishment of Permanent Native Grasses, CP4D Permanent Wildlife Habitat, CP25 Rare and Declining Habitat, CP33 Habitat Buffers for Upland Birds, and CP42 Pollinator Habitat), with grasses being the most common in NJ. These practices are designed to enhance important wildlife populations through habitat and food source establishment. FSA and partners established two new targeted species for conservation: the Monarch Butterfly and the Black Duck (in addition to the previous list of targeted species of Bobolink, Grasshopper Sparrow, and Saltmarsh Sparrow).

Emergency and non-emergency haying and grazing are authorized on a case-by-case basis for SAFE enrollments and will not be more restrictive than what is outlined in 2-CRP Part 19, according to the approved NJ SAFE Proposal. All tracts enrolled in the Grassland Practices will be subject to disturbance on a three-year rotation (disturbance type will be determined by the Conservation Plan, such as haying, grazing, burning, and mowing, and can be done once every three years or 1/3 per year). All mowing and grazing must occur outside of the Primary Nesting season (April 1 – July 15). Haying and grazing are subject to a payment reduction for that year (grazing may only occur once during a 10-year contract and twice during a 15-year contract without payment reduction) and participants may sell the hay mowed from the CRP acreage with a payment reduction. Additional policy information was shared via a slide but not gone over in

depth.

Non-Emergency		
Permitted Activity	Frequency	Payment Reduction
Non-emergency grazing outside PNS	Not more than every other year.	25 percent
Non-emergency grazing during PNS	Not more than every other year with a 50 percent reduction in the carrying capacity.	
Grazing to control invasive species outside PNS	Frequency determined by conservation plan to control Kudzu and other invasive species.	
Non-emergency haying or harvesting for biomass outside PNS	Not more than once every 3 years with 25 percent of the acreage unharvested.	
Beginning farmer grazing outside PNS	May be conducted annually by a beginning farmer or rancher with a contract share greater than zero.	None
Incidental grazing outside PNS	May be conducted annually. The intermittent and seasonal use of CLEAR practices that is incidental to the agricultural production on the land adjacent to the buffer conducted after the participant harvests crops from within the surrounding field.	
Gleaning grazing	May be conducted once in the fall of the first year of CRP-1 before the cover is established.	

Under management activities, this year for the SAFE proposal, FSA combined grassland heritage and Piedmont into one big proposal. This created a more streamlined process (one map instead of three sections). If a producer signs up for any of the following practices, they will be required to remove thatch (which is not payable through cost-share and subject to payment reduction): CP1 (establishment of permanent introduced grasses and legumes), P2 (establishment of permanent native grasses), CP4D (permanent wildlife habitat), CP21 (filter strips), CP33 (habitat buffer for upland birds), CP42 (pollinator habitat), and CP43 (prairie strips). Required management is not subject to a payment reduction and management may not occur during the last three years of the CPR-1 period. Additional management activities may be added to the Conservation Plan on a case-by-case basis if NRCS or TSP deems it necessary.

Question – Why do the grass filter strips typically not re-enroll?

Answer – The 2014 Farm Bill had different rules than now. Some producers were mowing those grass waterways and on the new conservation plans that they were no longer allowed to mow.

10:06 NRCS Strategic Plan – Maria Collazo and Lauren Finnegan, NRCS

Maria started the section on the NRCS NJ 2022-2027 Strategic Plan, created with the input of over 25 different partners and employees. Three goals were established with this plan specific to the workforce (where we want to cultivate and retain a highly-skilled, empowered, and diverse workforce unified in our mission and dedicated to promoting a culture of trust), conservation, and service delivery (to deliver intentional, practical, and impactful conservation activities and solutions to reach a diverse customer and land base), and land bases (broaden the implementation of innovative techniques on non-traditional land bases resulting in greater conservation and preservation for the benefit of New Jersey’s communities).

Some examples of how NRCS will implement these goals include increasing the number of active participants in the State Technical Committee and increasing the focus on conserving and preserving our forest land, urban, and wildlife habitats. The next steps in the operation plan cover steps for the next five years. This plan will help identify which strategies NRCS will address to identify what success looks like, what actions to take, and the person responsible. The plan is estimated to be completed by February 2023

The Strategic Plan will be posted to the NRCS NJ website, once available, via nj.nrcs.usda.gov. Lauren gave a quick overview of our website and pointed out key features, such as the State Office Page where NRCS houses the Strategic Plan, as well as the State Technical Committee information (agenda, roles and responsibilities, and past meetings). A request was made in the chat for a link directly to the FOTG.

10:19 Resource Shop Update – Evan Madlinger, Kaitlin Farbotnik, and Bea Sabouathone, NRCS

The Resource Shop is currently working on updating the NJ Conservation Planning Supplement (mostly for internal staff but also available to external staff that are looking to become certified as a conservation planners). There are some changes to mention, such as job approval authority (internally how we track people's ability to plan and certify our conservation practices), engineering certification, and clarifying policymaking (to clarify the tiers).

Source Water Protection (SWP) has a few updates. Currently, NRCS has 20% of the state's watersheds identified as priority watersheds where many practices receive enhanced cost sharing in those areas. Most practices address water quality concerns. New Jersey has a big population dependent on the watersheds for drinking water. For that reason, NRCS had requested NHQ to waive the 20% limit so that we can increase the watersheds labeled as priority to 60% but we were denied. We will pursue this increase later.

The third update from Evan involves Climate Smart Conservation Practices. A new Climate-Smart Agriculture and Forestry (CFAF) Mitigation Activities List was released, updated from last year. A few new updates include Critical Area Planting (acres) – code 342, Wildlife Habitat Planting (acres) – code 420, Forest Stand Improvement (acres) – code 666, Combustion System Improvement (number) – code 372, Energy Efficient Agricultural Operations (number), code 374, and Wetland Restorations (acres) – code 657.

There has been staffing changes to the Resource Shop at NRCS. Don Donnelly has been brought on board as our Forester and Bea Sabouathone as a Resource Conservationist and Business Tools Coordinator.

Bea shared his roles and responsibilities via a few slides. He is the point of contact (POC) for NRCS Business Tool Conservation Desktop (CD) and Conservation Assessment Ranking Tools (CART). Conservation Desktop is the tool we use to produce most of our conservation products, such as conservation plans while CART is what we use to assess and rank project applications. Additional roles Bea holds include providing training to all field staff, updating NRCS NJ employees with software changes, leading POC for conservation planning for field staff, assisting the State Resource Conservationist with planning policy, as well as maintaining our NJ conservation database, and FOTG content manager. He also maintains the TSP registry and assists TSPs with processing their registration, is the cultural resource coordinator, and helps with any type of SHPO consultation.

Kaitlin Farbotnik joined the presenting staff and provided an update. She and her team are in the Cropland Chapter and are wrapping up their plan by getting all the stakeholders together to discuss what each agency will commit to and what is expected among the agencies. These working sessions will be incorporated into the local workgroup sessions. It is important to hear from the farmers and producers. Once they have polled the audience, they will come up with a list of commitments. This should help streamline the plan when the information is brought to the local working groups in January or February.

10:30 Engineering and Ecological Science Standard Update – Hilary Trotman, Kaitlin Farbotnik, and Evan Madlinger, NRCS

Engineering standards and criteria are developed, reviewed, and updated to incorporate improvements in construction methods, equipment and material, as well as findings of research and experience both in response to immediate needs or on a recurring basis (often every five years). National NRCS discipline leads update the standards for states to adopt. States then can add or edit the standard to make the criteria more specific to their state. Changes made by the state cannot be less restrictive than the criteria of the original national version. There were 16 engineering standards updated in 2022.

Hilary provided a brief update to some of the standards, but this is not an inclusive list. For Agrichemical Handling Facility (309), there were updates to the required storage volume to contain in the event of a storage container spill. There were other minor updates to the Air Filtration and Scrubbing standard (371), along with the Channel Bed Stabilization standard (584). The Dry Hydrant Standard (432) was revised, expanding the purpose to include providing access to available water for additional purposes, including livestock, water, small acreage irrigation, wetland management, and other purposes where water is needed in limited quantities periodically (in addition to the purpose of providing access to an available water source for fire suppression).

The Energy Efficient Agricultural Operations Standard (374) has been updated extensively. The name has been changed from Farmstead Energy Improvement to Energy Efficient Agricultural Operation to reflect the energy efficiency purpose and the standard has been rewritten to focus on the energy efficiency criteria, fire and electric safety, and manufacture recommendations.

The requirement for an American Society of Agriculture and a Biologic Engineers or ASABE energy audit has been revised to allow for other assessment methods. The setback for an On-Farm Secondary Containment Facility (319) was updated to be a minimum of 25 feet from streams, ponds, lakes, wetlands, sinkholes, and other water wells. Facilities closer to 100 feet to streams, ponds, lakes, wetlands, sinkholes, and water wells need to have an audible or visual high

liquid level alarm to indicate when the tank is nearing capacity or use other types of automatic shutoff devices during filling.

Another change is to Precision Land Forming and Land Smoothing (462), which were once individual practices, but combined since both standards are similar in practice. Recreation Land Improvement and Protection (566) is another merger of standards. The standard is not likely to be used under normal NRCS EQIP-type programs, but more through the watersheds program, such as PEL 566, where recreation is a program purpose. Changes were made to the Roof Runoff Structure Standard (558) to address water quality, for reuse. Roof runoff can be contaminated with environmental pollutants that have settled on the roof between runoff events. This may make the captured runoff unsuitable for uses such as drinking water for livestock without treatment. The operator is responsible for ensuring that the quality of the runoff is suitable for its intended purpose.

There was a name change for the Sinkhole Treatment Standard (527) from Car Sinkhole Treatment. The Sprinkler System Standard (442) was made consistent with the micro irrigation standard to include the installation of a flow meter to assure proper operation of the irrigation system. Safety was emphasized in the Waste Separation Facilities Standard (632) and the Waste Transfer Standard (634); the criteria for reception pipe size, pipe cleanouts, and pipeline velocity were revised. The Wastewater Treatment Standard of milk house (627) wastewater is a new standard. It was developed to better address the technical complexities of treating gravel in gray water from cleaning of milking equipment. All these standards were uploaded to the NRCS Field Office Technical Guide in October 2022.

Kaitlin provided a few updates from the Ecological Sciences division. The Fence Standard (382) had minor updates to the writing style from a passive to an active voice. For example, items in the standard will say "should" while those same items in the criteria now say "will". The Vegetative Barrier Standard (601) was updated to include ephemeral gully as a purpose and added a criteria section, as well as an update to the technical requirements in stem diameters and densities. The Windbreak/Shelterbelt Establishment and Windbreak/Shelterbelt Renovation used to be two different standards but now has been combined into one standard (380). Feed Management Standard (592) had changes to the language throughout the standard to expand on the air quality purpose to include ammonia, volatile organic compounds, greenhouse gases, and dust. Field Operations Emissions Reduction Standard (376) had changes to the definition to "Adjusting field operations and technologies to reduce emissions of particulate matter (PM) and oxides of nitrogen from field operations". They also added the purpose of reducing emissions of oxides of nitrogen to cover the expanded definition and changed the "Conditions where practice applies" to "This practice applies to cropland". The Grazing Land Mechanical Treatment Standard (548) reduced safe working slopes from 30% to 20% and they changed some associated practices to update the purpose. The Tree/Shrub Pruning Standard (660) updated some of the purposes and criteria to a more refined definition. Criteria were adjusted to match changes in the purposes; considerations, plans, and specifications sections were further refined, and new references were added.

The Wetland Creations Standard (658) added the purpose of creating a native plant community adapted to growth and regeneration in anaerobic conditions. The establishment of hydric soil was removed as a purpose. The Aquatic Organism Passage Standard (396) had revisions to improve clarity and readability. Criteria was added for specific barrier situations. The Deep Tillage Standard (324) and Early Successional Habitat Development Management (647) had minor wording changes. The Firebreak Standard (394) had a definition revision to distinguish this practice from the Fuel Break Standard (383). It was also edited to improve clarity by organizing the Considerations section into smaller considerations. The Upland Wildlife Habitat Management Standard (645), Wetland Enhancement Standard (659), and Wetland Wildlife Habitat Management Standard (644) were all edited for clarity. The Forest Stand Improvement Standard (666) was edited to improve clarity. The purposes were revised to align with resource concerns. Criteria and considerations were reorganized and revised to match the updated purposes and links to enhancements. General criteria information was incorporated into the Plans and Specifications section. Considerations for visual quality were integrated into the General Considerations section. New consideration for the use of biomass for bioenergy, renewable energy production, or biochar was added to the General Considerations section. Minimum requirements were added to the Plans and Specifications section. References were revised. The Soil Carbon Amendment Standard (336) replaces the interim standard 808 and will be adopted in FY24 due to payment schedule limitations.

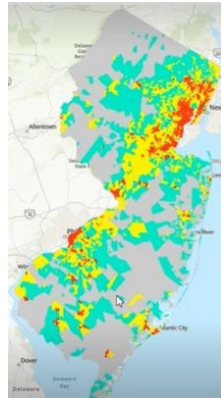
Kaitlin then provided an update on the Interim Practices. Currently, NJ has four active internal practices: Soil Carbon Amendment (808), Annual Forages for Grazing Systems (810), Raised Beds (812), and Low Tunnel Systems (821). Three additional interim practices are being considered: Phosphorus Removal System (782), Amending Soil Properties with Lime (805), and Organic Management (823). The Phosphorus Removal System has been adopted by a few of NJ's neighbors and it covers putting in a system like a substrate to catch runoff from fields to grab onto that phosphorus before it goes into a water source, such as a stream or lake. The Amending Soil Properties with Lime practice does not pay for the alignment itself; it just pays for the mobilization, causing a very low rate. The Organic Management practice is for producers that have inorganic systems that need help. This is different than transitioning to organic; it can help install buffers and barriers and things like that to get producers up to speed with their organic systems.

Just as a reminder - the interims are trial standards. States adopt them, they typically last for about three years, and we

must report annually on how we're using them, how it's going, and how we think the standard is. Then, if it goes well and states and producers like it, we can adopt them.

11:05 Updates of activities and FY23 CTA Grants – Morgan Devine, NRCS

NRCS has an urban funding pool this year and within that funding pool applications need to be ranked. NRCS had to come up with a way to prioritize the urban projects without setting a strict definition for what urban is because we don't want to be exclusionary. NRCS State Soil Scientist Edwin Muniz created a layer in ArcGIS that the planners are going to be using as the rankings are going to be tied to it heavily. Edwin combined GIS layers from the Food Access Research Atlas with their definition of an urban tract and low food access tract. He then combined those with the EPAs environmental justice screening tool layers (including the particulate matter of 2.5 traffic proximity, low income, minority, and linguistic isolation layers) and intersected them to create our master layer. You can see in the map below that red is a high priority, yellow is moderate, green is low, and then we've got gray for very low.



In review of FY22, NRCS had a few different cost-share programs, which were mentioned earlier. For RCPP, NRCS had three applications totaling approximately \$50,000 and includes a current 5-year agreement in Newark. For the EQIP, there were a total of four applications covering approximately \$89,000. The third program is AMA, and two applications were received for \$22,320. In total, \$150,000 of the total funding went to urban applications last year. In addition to those cost-share programs, there was also a new grant program called CTA, which can be searched for on Grants.gov. FY22 had five applications, which is great for a first-year program. The CTA grants are meant to help build community gardens, pollinator plots, and tree plantings, and are open to municipalities, county government, state governments, nonprofits, and schools, and those are groups that typically cannot go through the normal EQIP and other program application routes without having a nonprofit back them. The focus is not only on addressing the low food access problems, but it also focuses on creating conservation education, opportunities, engaging with partnerships, and engaging with the community.

As an agency, NRCS has had cost scenarios for urban which is not new for FY23. Some of the options include composting facilities, high tunnels, conservation cover, cover crop, field border, wildlife habitat planting, irrigation pipeline, irrigation system, micro irrigation, mulching, tree/shrub planting, raised beds, and low tunnel systems. This is not a comprehensive list but rather just some of the more common options. Before FY22, if a producer with .4 acres wanted to plant cover crops, they might only receive a few dollars in payments if they implemented through our program. With these new scenarios, instead of paying per acre, for example, cover crop, it can pay per square foot. This scenario makes more sense when a producer is working on a very small acreage plot.

11:14 Farmland of Local Importance – Edwin Muniz, NRCS

Edwin has been diligently working on a procedure to assign some of the soil's classification for farmland of local importance that is being used, sometimes as criteria for foreign preservation. The farmland classification is farmland that has the best combination of physical and chemical characteristics, growing season, and moisture supply needed to produce sustained high yields of crops economically and managed according to acceptable farming methods. We are not growing more soil, so we need to protect what we have. Edwin created a map of New Jersey with farmland classifications. 53% of the state is considered prime farmland, 21% is statewide importance, 5% is statewide importance if drained, 3% is farmland of unique importance, 3% of farmland is of local importance, and 14% is not prime farmland.

NRCS does not have control over the classifications as they have very specific criteria. They do have more control over what could be added to the local importance list. There are some conditions for farmland of local importance classification. First, the soil must be in agricultural production already. Next, they look at the National Commodity Crop Productivity Index (NCCPI) (which is a rating index that is assigned to the soil based on chemical and physical properties). Other items to look at include the Land Capability Classification (LCC), Erodibility Index (EI), Highly Erodible Land Criteria (HEL), and Land Evaluation from the LESA system. This process is a coordinated effort between state or local government units or organizations concerned with farmland protection and open space, land trust, or easement

program partner, and NRCS. The activities designation process via field work falls mostly under NRCS, from evaluating the Soil Survey map unit associated with the land in question to verifying those Soil Survey map units that meet the criteria for farmland of local importance to assigning and approving the Soil Survey map units within the locality. In partnership with those mentioned above, who would be responsible for recognizing soil map units classified as not prime farmland, to compile evidence of the suitability for crop production? Crop production includes cultivated crops, perennial fruit and nut crops, hay and other feed crops, and improved pasture. All information that is collected will be brought to the state conservationist who would sign the documentation, making it formal, which will then be added to the database. The fact sheet associated with this topic can be found on the NRCS NJ Soils webpage.

11:23 NRCS Field Operations Update – Arelys Ortiz, NRCS

Arelys started her presentation by introducing herself. She goes by Liz instead of Arelys and she is the new assistant state conservationist for field operations in New Jersey. She started as an intern with NRCS Indiana in 2012 before she was brought on board as a soil conservationist and then as a district conservationist. She moved to NRCS Virginia as an area resource conservationist for two years before coming to NJ.

NRCS NJ has local working groups where the district conservationists (DCs) meet with participants, farmers, producers in the counties, and local and state partners. During these meetings participants go over what issues they have in their respective counties, what their resource concerns are, and how NRCS programs can help them address those concerns. In New Jersey, we have service centers that are now partnering with their respective districts. Columbus and Freehold have partnered to meet with their district leaders and Vineland and Woodstown have partnered to meet with their district leaders. These meetings need to occur before the March 1, 2023 deadline. There was a meeting that took place yesterday with the districts and the service centers. NRCS does have two additional service centers, Hackettstown and Frenchtown, which are in the process of scheduling their meetings with their respective districts.

11:26 Private Land Forestry, Don Donnelly – NRCS

Don is no stranger to NRCS. He spent 12 years with New Jersey Audubon (NJA) as their director of forestry where they worked closely with NRCS on wildlife habitat and golden-winged warbler, as well as providing technical services and filling in knowledge gaps on forestry. Prior to joining NJA, Don was with the Morris Soil District, US Forest Service out of the Northern Research Station as part of an interdisciplinary team collecting field data for carbon sequestration, and Hunterdon County pulling double duty as forester and horticulturist. His role with NRCS will have him working with TSPs, contract planners, and field staff.

There have been some recent changes to CPA 106 and the DIA 165. CPA 106 is a forest management plan (including an inventory) to identify desired primary and supporting practices to treat identified resource concerns. NRCS is required to garner the approval of the State Forest Service as there are regulatory compliances involved. DIA 165 is a Design and Implementation Activity where they develop specific practices or management prescriptions to implement conservation practices. This now aligns more with what foresters typically do with practice plans or operational plans. If you think of the forest management plan from the NRCS perspective, we're going through that planning process and providing the landowner with different alternatives, and they select what is their preferred alternative now. These are 10-year plans and landowner priorities can change during that time. The DIA will allow us to adapt and respond to changing priorities better and help the planners with the burden of contracting because the TSPs can then put together the DIA specific to those practices and new priorities that come up. Building upon that, the new CEMA (Conservation Evaluation and Monitoring Activities) 223 is good because you just need to be a qualified individual, which opens the door for people other than TSPs to become involved with NRCS. CEMA 223 allows for activities that include evaluation, monitoring, testing, or assessment to complete practice implementation requirements, or to determine the effectiveness of conservation practices.

New Jersey's forest is approximately 48% privately held, which equates to almost one million acres. It is important to recognize that about 85% are landowners that own less than 50 acres and the relevance there is a lot of potential forestry practices. There is also an economic threshold where one would want a SILVO cultural Practice being implemented on upwards of 50 acres, especially some of the less intense practices to make them economically viable. That presents challenges in New Jersey when we have a lot of landowners that fall into that 15-acre category. Among private owners, 50% own 10-19 acres, 35% own 20-49 acre, 12% own 50-99 acres, and 8% own 100+ acres. When landowners were asked to participate in a survey hosted by the National Woodland Owners, the top five reasons they own land are the beauty of nature and scenery, part of a home, wildlife habitat, passing it on to children/heirs, and privacy. None of these reasons are product-driven, creating another level of disconnect. This instance would be a good example of where the NRCS cost-share rates come in. Fun fact – over the past one hundred years, forest cover has remained constant in the state. Once we recovered from the deforestation period in the 1800s, NJ leveled off at about two million acres. Today we are sitting at 1.988 million acres.

The US Forest Service collects forest inventory data from across the country every year on a rolling basis and as of 2019, the largest percentage of NJ forests by age class falls within 61-80 years at 30%. This means 30% of our forests were initiated at one time during those 20 years. Overall, it appears that 75% of our forests fall between 40 and 100 years old.

Structurally, these forests are very similar, they're middle mature forests. You might recognize this point driving through a forest: they're not old-growth forests and they're not early successional forests; they're not at either end of the spectrum, and the relevance is these forests tend to be less diverse, there's inter-tree competition, and lots of stress between trees that compromise their vigor and resilience. In addition, this stage class is more susceptible to both biotic and abiotic stressors and is the forest stage that supports the least biodiversity. Another big issue is structural changes in the forest. Don provided a picture of a hardwood stand that includes 20- to 30-year-old Maple, Red Maple, and Sweet Birch ingrowth. There are compositional changes to the forest because of land use patterns and changing disturbance regimes with the biggest issue being the suppression of wildfire or human-induced fire over the past 70 years.

While doing data analysis for this presentation, Don pulled the "NJ Forest Growth vs. Mortality" figures from 2019. When looking at the indexes, one would assume a healthy vigorous forest across the landscape should be growing at a rate that far exceeds its mortality. The latest figures show the annual growth of our forests to be 32 cubic feet per acre while the average annual mortality was 26.6 cubic feet per acre. This speaks volumes as to what is going on out there; We're seeing almost as many trees, or at least growth of trees dying each year for various reasons as we are growing new stock. NJ has reached this middle, mature state, where there is a lot of stemming exclusion. Density management through thinning and other practices that try and increase complexity in the forest to get more structure both vertically throughout the forest stands and horizontally across the landscape is something we should focus on to improve resiliency in our forest.

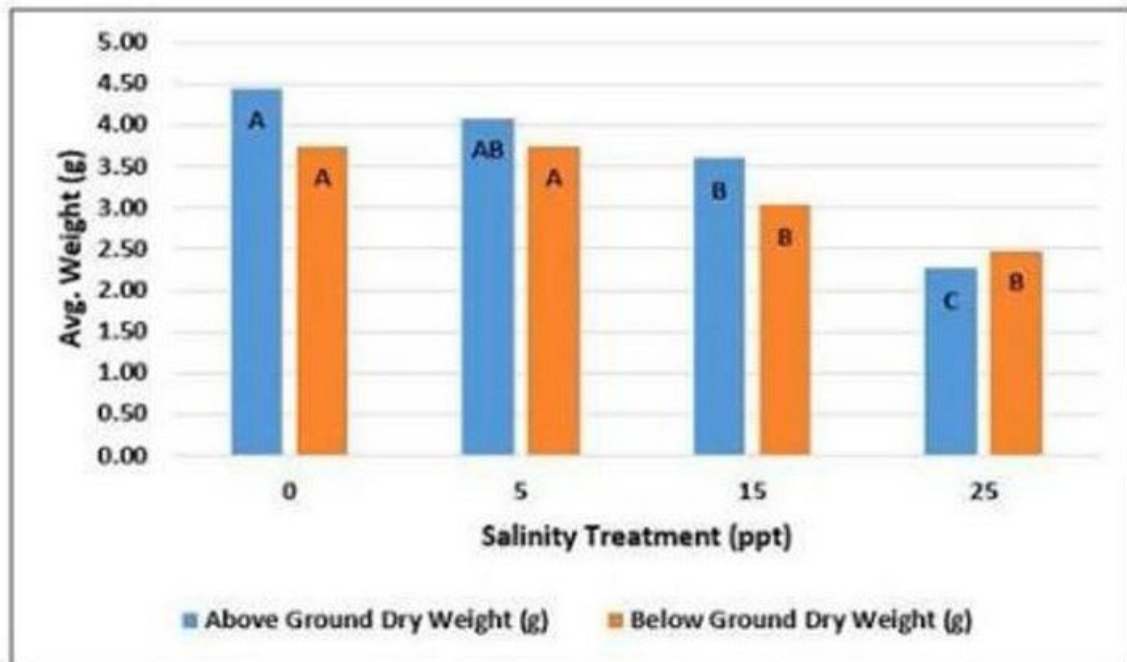
Question from the chat: What species of trees do you recommend replacing those lost emerald ash borders?

Answer: The answer is site specific. No answer fits all but will be a species suited to the more moisture-budgeted sites.

11:53 Cape May Plant Materials Center Update – Chris Miller, NRCS

NRCS as an agency operates 25 plant material centers throughout the country. The Cape May location is unique as they focus on coastal plants. The only other center that has its main program focusing on coastal plains is the Louisiana center in Galliano (just south of New Orleans). Unfortunately, the center is in the process of rebuilding after taking a direct hit by Hurricane Ida. One of the focal points for the Cape May Plant Materials Center (PMC) is selecting and evaluating plants for successful performance and coastal restoration projects, whether it is related to agriculture, dunes, barrier island systems, tidal marsh, or shorelines system. NRCS has worked through all those types of environments since 1965 and the focus now is looking at how saltwater intrusion is impacting agricultural lands. The focus is on the increase of salinity in the environment as sea levels rise, coastal flooding occurs more frequently, and more intense storms. A few years back the PMC embarked on a greenhouse salinity screening tolerance study as a test run to put quantitative values on salt tolerances of various plant species. The first focus is on the native warm-season grasses with good application for riparian buffers and coastal areas. Species on the study list include prairie cordgrass, Eastern Gama grass, Florida paspalum, Switchgrass, Coastal Panic grass, three species created by the PMC, and eventually Giant cane, Sugarcane plume grass, and Seashore mallow. Salt meadow cordgrass is being used as the standard of comparison since we know Salt meadow cordgrass occurs in tidal marshes, is a halophytic plant, and has a high tolerance to salt. Part of the study includes greenhouse ebb and flow tables, which are small square meter tables that have water reservoirs underneath where someone can adjust the salinity and simulate the tidal flow. After a two-month growing season in the greenhouse, the information we get looks at top growth or biomass production, and the root growth or root production biomass or below ground dry weight. Below is a chart on prairie cordgrass data within eight weeks.

Prairie Cordgrass (*Spartina pectinata*) Data- 8 weeks



The blue bar represents above ground dry weight while the orange bar represents below ground dry weight. The zero represents the control, which is no salt. The chart then goes on to show five parts per thousand, 15 parts per thousand, and 25 parts per thousand. The lower the number, the less brackish the water is, while the higher numbers get closer to the same concentration as seawater. You can see how the top growth and the blue bar declines as salinity increases and how the below ground biomass decreases as salinity increases. There are significant differences between 5 and 15 and even more differences between 15 and 25 parts per thousand. However, they did not get complete mortality from the prairie cordgrass, which is known to have a range of moderate salinity tolerance. This first step of the study is to give values to the salt tolerances where the rankings are listed as low, medium, and high. This study was taken to the field with the University of Maryland, George Washington University, and the University of Delaware on the lower Eastern Shore of Maryland on some farm fields that have been impacted by saltwater. After two growing seasons, there has been a good survival rate for all the species with the lowest survival rate being between 55-60%.

In the example shown, a lot of the areas that are low-lying close to the coast have an extensive network of ditching; farmers have not employed buffers. You could see where the producer has planted soybean and directly next to it is smooth cordgrass, which is their inner title, high salt-tolerant grass. This setup creates a potential problem when storms occur, backing up water and overflowing into the field. This will kill the crop. This situation calls for the encouragement of buffers.

Another item the PMC is working on is a project that the Cape Atlantic Conservation District came to them with Tuckahoe Turf Farms asking about growing in dredge material. The Tuckahoe Turf Farm is receiving dredge material and applying it to the land. The material is taken out of the water, trucked to the site, dewatered, and then spread on the land. Initially, this material has a very high salt content but as time goes by, if there are sulfides in that material, the sulfides will oxidize and will become extremely acidic. The PMC was able to offer options that would perform well in that type of setting: coastal panic, prairie cordgrass, beachgrass, and salt meadow cordgrass. Below are some pictures of the dredge material being applied to the land and the outcome. There was a period where the grasses went through stress, but they rebounded and survived remarkably well – 85 - 90%.



The PMC has been working on the commercial production of plants, specifically sea oats that have been adapted to the northern Mid-Atlantic. This has been in the works for a few years. They are at the point where field evaluations are complete and are writing up the findings and information including information about genetics, seed production, and survival on various sites. The goal is to have sea oats as a potential option for the dune restoration projects located in Southern New Jersey, Maryland, and Delaware (primarily where it does not occur naturally but is well adapted). Another product listed for future commercial plant release is the seashore mallow, which is an obligate wetland flowering wetland plant that is very salt tolerant. This is attractive to pollinators and has some value-added uses: the stems can be cut and ground for bio-absorbent material and the seeds themselves are oily which has prompted a look into working with ARS to use them for biodiesel production.

In addition to the plant work, the PMC also provides technical documents and support to the National Plants Database from the standpoint of writing plant guides (a very comprehensive guide on propagation and distribution information on plants). They completed a revised plant guide for smooth cordgrass and completed a new plant guide for coastal little blue stem.

Question from Kristin Adams: Do you (PMC) ever go out to site visits? She has a site in Waretown right along the marsh and they're looking to do wetland enhancements for wildlife, and they need plants with salinity tolerance.

Answer: Yes, but not as often as he would like but will link up with Kristen via email to set that up.

12:06 Partner Report – Environmental Protection Agency Updates – Michael Flood, EPA

The USDA received a lot of money from the IRA with the Environmental Protection Agency (EPA) receiving some for their air programs. However, about a year ago, \$50 billion dollars was dedicated to the EPA under the Bipartisan Infrastructure Law (BIL), which was the largest single investment the government has ever made into the water sector. This money was designed specifically for clean water, drinking water, wastewater, and stormwater projects. Over \$30 billion dollars was dedicated to the Drinking Water State Revolving Fund (with a subcategory of lead service line replacement) and another \$12 billion dollars was dedicated to the Clean Water State Revolving Fund (with a subcategory of Emerging Contaminants (PFAS/PFOA) getting \$1 billion dollars). These state revolving funds are federal and state partnerships that provide low-cost loans and financing options for a range of water quality projects and infrastructure

projects. Under the Clean Water State Revolving Fund falls some of non-point source pollution projects and nutrient reduction strategies. There are some stipulated funds available (approximately \$1 billion dollars) for emerging contaminants in the areas of research and assistance with PFOS and PFOA. New Jersey's allocations are roughly \$72 million dollars in the Clean Water State Revolving Fund. Some project areas that can be eligible include non-point source pollution management, water reuse in green infrastructure, and technical assistance in relation to nutrients.

One point Michael wanted to highlight was the most recent Nutrient Memo. Each administration issues a Nutrient Memo, which is a policy statement on EPA's priorities referring to nutrient management, nutrients in the water, and water quality. This memo recognizes that nutrient pollution is a growing challenge. The EPA has the Clean Water Act, which has done a great job at targeting the point sources. There are no new funding sources with these memos but there are existing pathways and existing funding sources where projects can be implemented. The primary strategies for this memo include partnerships, certain best management practices, science-based solutions, and technical assistance. One highlight is to deepen the partnership between EPA and USDA, and work on nutrient issues, nutrient planning, source water protection, national water body initiative, watershed planning, and integrating (seeing where we can collaborate with the two agencies). The memo also stipulates scaling up and investing in best management practices, conservation practices, and having data assessments to see the results and assist in data-driven decisions based on where financing has been targeted. In addition, the memo encourages providing technical assistance on effective nutrient loss reduction strategies.

Some collaborations that were highlighted between EPA and USDA include source water protection (reduce nutrient impacts on waterways and drinking water sources), water quality (evaluating the water quality impacts from USDA investments and helping target conservation investments), watershed plans (facilitating broader use of watershed assessments to increase the proportion of USDA resources tied to watershed plans or other prioritization mechanisms, such as the NWQI, drinking water and wastewater infrastructure (helping underserved communities and households improve capacity to secure funds comply with requirements, and sustainably operate and maintain their infrastructure), and conservation cropping systems (promoting conservation cropping systems that minimize soil disturbance and maximize plant cover as well as preserves soil organic matter content, enhance farm profitability, promote sustainability, and improve water quality).

The EPA has the Farm, Ranch, and Rural Communities Federal Advisory Committee (FRRRC). This committee advises the administration on important environmental issues and provides policy advice, information, and recommendations. In November 2021, the EPA announced the appointment of 20 new members to the FRRRC, with Dr. Beth Sauerhaft from American Farmland Trust in New York chairing the committee. The priority under this administration is to see how the EPA can best advance the agricultural sector's climate mitigation and adaptation goals by supporting farmers and ranchers in their efforts to reduce emissions and accelerate a more resilient food and agricultural system.

12:16 Partner Report – Rural Development Updates – Jan Rega and Maryann Tancredi, RD

Maryann Tancredi is the business programs director at USDA Rural Development (RD). She began her presentation by talking about IRA and the funding that is going to RD. RD will be receiving \$2 billion dollars through the Rural Energy for America program with approximately \$300 million allocated for underutilized technologies and technical assistance. Funds are expected to support renewable energy and energy efficiency projects for more than 41,000 farms and small businesses. There is an anticipated increase in the grant amount for the program as right now it is only 25%; they are expecting around 40% but there is nothing official about that number. In addition to the Rural Energy of America program, RD also has the Value-Added Producer grant. In 2022, RD received \$1 million in applications where three of the four projects/applications were funded for the full grant amount of \$250,000 in working capital.

Those awardees include Valley Shepherd Creamery, Long Valley, and Global Agricultural Productions (GAP). Valley Shepherd Creamery applied for the RD investment to be used for processing and marketing tasks to expand their sales of their Simply Sheep Yogurt and a glass jar. Some tasks included under the grant are sales, promotions, and intake of delivered materials such as sheep's milk. The project will create two new jobs on the production line and one new sales job. The GAP investment, located in Jersey City will be used to implement a direct-to-consumer strategy and complete the expansion of its packing and shipping facilities to open the door to new markets, such as restaurant farm markets and subscription plans. One project under GAP is their blueberries, called Full Blues. This variety is one of the largest and most superior-tasting blueberries on the market. They created syrup from the blueberries and demand exploded from 20 bottles to restaurants ordering cases.

Under the Value-Added Producer Grant, RD's investment was made to Grist Mills Grange in Pittstown, NJ. This grant will help offset their post-harvest labor, delivery labor, and marketing costs associated with growing their community and support agricultural membership with the anticipation of expansion. The plan is to add 2000 new members with 14 full-time jobs and seven additional full-time drivers to help with the increased demand as their delivery program services up to a 400-mile radius of the farm.

Jan Rega took over the presentation. She is the Area Director for the Field Office in Hackettstown, NJ. She supports business development throughout the state working closely with both rural businesses and rural communities involved in community and economic development. RD as an agency provides between 40 and 50 programs, grants, and loans that fulfill the requirements of supporting rural community prosperity. There is a housing division, a business division, and a rural utilities division. One focus area for FY23 for RD that is like the NRCS Strategic Plan is the work on obligations and new applications that support economic development and revitalization as a result of the COVID pandemic impact through the American Rescue Plan funds and Infrastructure Plan funds through IRA. A second area of focus is mitigating the impacts of climate change through a reduction in pollution through some of their projects, issues within a community trying to revitalize brownfields, and other stormwater runoff concerns. RD provides economic support to those communities. The third area of focus is making sure that all funds are going to the most underserved populations that do not have access to their capital.

RD, through outreach, is providing financing to public bodies, businesses, and nonprofits in rural areas. Another crossover, this time with EPA, is the statutory programs providing not just financial assistance for those rural communities but also improvements to the water and sewer systems. RD has been part of the PFAS mitigation arena for a couple of years. The last obligation was to handle an emergency quality water issue in Brooklawn using a 1-million-dollar grant that was awarded to them to correct the PFAS problem and to move forward. Other obligations include the Woodbine in 2021 to correct some of their PFAS and other water quality issues in those communities. In addition to those problems with water supply, they are also dealing with stormwater management issues. There has been an increased interest in community gardens. Morgan Devine was able to assist, combined with technical assistance and specialization from NRCS with the funding (and other facilities and grounds improvements that they might be doing with the construction projects). There has been a significant interest in trying to mitigate concerns with food deserts and invest in those underserved communities with the Community Facilities Program, which provides direct loans and guaranteed loans to public bodies and nonprofits for essential services. Recently, the Emergency Rural Healthcare grant (offered under the American Rescue Plan), was invested primarily in food banks as well as hospitals recovering from COVID. A major food bank in Northwest NJ received over \$1 million dollars for making improvements to the food bank facility and acquisition of equipment (as well as recovering costs).

12:27 Conservation Innovation Grants Review (CIG) and RCPP – Evan Madlinger, NRCS

Last fiscal year, NRCS NJ awarded three projects: NJA and NJ Department of Agriculture (NJDA) are doing a new project where they are testing out an olfactory deer barrier system. This is a type of “step-in” tape fence, and you apply a deterrent that deer can smell. It has shown promise on cropland, so they are now testing it out in forest land as an alternative to fencing, as fencing in the forest is problematic. Rutgers received \$75,000 for this project from NRCS.

The next project was for Rutgers with their work on the synergistic effects of multiple insectivorous taxa in pest suppression on farms. Rutgers is looking at how bats and barn swallows affect common agriculture pests on farmland. Before this project, Rutgers had previously studied bats, but this new project is looking at the differences to see if one is better than the other. The bats forage at night and the barn swallows forage during the day. This project is also a good way to bolster the barn swallow population as their numbers have been declining. They received \$131,676 of funding. The final of the three projects is the NJDA’s Manure Link. They received \$85,067 in funds from NRCS. Evan did not elaborate on this plan as the next presenter has this on their agenda.

RCPP was discussed earlier in the meeting by Gail Bartok. This program was overseen by the previous ASTC-FO Nicholas Saumweber but will now be taken over by Gail as ASTC-Programs for NRCS NJ. NRCS expects RCPP to become greatly infused with money from IRA and this program allows partners to approach us with ideas and dedicated funding for joint-conservation issues. There is a partner meeting planned for the second quarter of the year to discuss changes.

12:32 NJDA FY22 CIG Grant – Sandra Howland, NJDA

NJDA awarded a Conservation Innovation Grant (CIG) for the New Jersey Manure Link, Where to Find What Feeds Your Field. NJ’s unique landscape of small acreage farms presents a set of challenges and opportunities. Many smaller farms do not have the capacity to handle their manure, especially horse farms. The equine industry is unique as it typically does not maintain associated cropland and manure is considered a “waste”. There is a need for manure transportation to nutrient-deficient crop fields, composters, and urban farms. This project will connect farmers to compost as a growing media for older urban farms, as well as connect farms with a cost-effective nutrient source. On a state-wide scale, the DEP’s Global Warming Response Act, 80x50 Report, identifies the need to address agricultural organic waste materials, as well as increased education and adoption of composting practices. NJDA seeks to develop a new New Jersey Manure Link website, which will provide a forum for minor generators to connect with composters and producers, as well as develop and adapt educational materials for composting, manure stockpiling or storage, and nutrient management. NJDA will be hosting webinars, highlighting the website, introducing the annual field days, and highlighting community resources (such as records, ARCs, partner agencies, and the EQIP program). There will also be partnering on technical field days,

educating producers and composers, and showcasing conservation practices. The final piece of the puzzle will be assistance to HU communities within the annual cost-share pool. To complete this project, NJDA partnered with Rutgers University Office of Research Analytics for website development, the NJ Compost Council for education and outreach, and Honey Brook Organic Farm to host field days. The website will incorporate some features from Pennsylvania's Manure Match website where users can create a basic account and list before being able to access additional information for a degree of security. The listings will be moderated and comprised of details about either kind of walking foreman or compost or having manure compost available. These listings will generate green drop pins as well as a tabular listing and will include what type of manure or compost, location, testing available, what types of nutrients, how has it been composted, and how to facilitate pickup or contact the farmer. In addition, there will also be a listing of resources that are developed through this grant listed on the site. This project hopes to increase knowledge and adoption of manure export, composting, and compost use using innovative and on-the-ground BMPs and effective community engagement. They believe multiple sectors will benefit, such as livestock and equine producers gaining an outlet for excess manure, composters and producers will gain a source of raw feedstock and a linkage will be made between the rural and urban agricultural sections. This connection is a critical benefit of this project.

12:40 Conserve Wildlife – Impacts of Innovative Conservation Systems to Restore Degraded Habitat – Christine Healy, CWF

Christine is a wildlife biologist with CWF. CWF is a statewide nonprofit that works to protect rare and at-risk species that spend some portion of their life cycle here in New Jersey. Christine does a lot of work with reptiles and amphibian species, including the bog turtle. Within the realm of bog turtles, she performs outreach to landowners to educate them about NRCS and USFWS programs that they could be eligible to both benefit their land and benefit the turtles. She also performs habitat surveys to see where restoration might be required as well as helping USFWS with ground restoration efforts.

Bog turtles are a small species, with adults fitting comfortably within the palm of an adult human. They are North America's smallest turtle species, dark in color with their carapace typically brown or black to help blend into their environment but they do have a distinctive orange patch on either side of their necks. Bog turtles are identified as endangered; they are threatened at the federal level and the International Union for the Conservation of Naturalists has designated them as critically endangered. Threats to these turtles come from many sources, including illegal pet trade (poaching), diseases, and habitat loss and fragmentation (anthropogenic sources from development or disturbance that lead to the encouragement of invasive vegetation or naturally through vegetational succession). Bog turtles are habitat specialists; they require spring-fed wetlands or bogs that are characterized by having mucky, hydric soils, slow-flowing clean rivulets, and an open canopy. The canopy is very important to the bog turtles, particularly in their nesting behaviors (these turtles are lazy parents where the females will deposit their eggs on the tops of tussocks edges or soft sphagnum mosses, and then rely on the sun to incubate the eggs). As soon as that canopy starts to shade out this vegetation, temperatures don't get warm enough to keep those eggs viable. As a result, early successional habitat doesn't exist on its own. Bog turtles require a lot of management in their habitat, and the management techniques that are used are governed by a document called the Biological Opinion. NRCS has its own biological opinion, but it is currently being rewritten, so CWF has defaulted to the USFWS biologist for all of its work, including the conservation innovation grant. The Biological Opinion reviews several different practices, the most common being herbicide application and mechanical removal of the woody vegetation, but it also includes other techniques like prescribed grazing, installation of fencing, biological control of insects, and prescribed burning.

CWF recently implemented a CIG for innovative techniques for habitat restoration under the topic of possible prescribed grazing usage for managing bog turtle habitat in New Jersey. CWF wanted a better understanding of how livestock manages vegetation in comparison to herbicides or some of the more traditional methods that are used, and what impact they might be having on wetland communities beyond the bog turtle. They came up with three specific research questions:

- Is grazing by water buffalo (using the stocking rate approved by the Biological Opinion) comparably effective to herbicide application in managing invasive species in a wetland?
- Does grazing lead to the creation of new nesting habitats for bog turtles?
- Does grazing in a wetland lead to a measurable impairment of water quality.

The project was completed on attractive state land that was subdivided into three plots: acre grazing pasture, acre chemical treatment, and acre control. During the summers of 2020 and 2021, the partner farmer dropped off the water buffalo within the pasture at a stocking rate of 0.75 animal units per acre and they were allowed to graze for the duration of the summer for both years. After the animals were removed from the pasture, CWF performed herbicide application within the chemical treatment plot in both 2020 and 2021. They conducted three rounds of vegetation sampling done by CWF staff, two at the beginning of each year that they had grazing and one following the conclusion of the grazing. They also collected six rounds of water sampling prior to the release of the water buffalo in the past year, while the buffalo were in the pasture and then following the chemical treatments. Circling back around to answer the three questions: are water

buffalo effective at managing wetland invasives? Yes! They found the buffalo targeted primarily undesirable species that were located within the grazing pasture (phragmites, cattail, and reed canary grass). They also found that phragmites were reduced in 57% of the grazing plots, which was a better result than they got in both the chemical and control plots. A side note to the study: they compared phragmites to cattail in the two other plots as phragmites were not evenly distributed across the area.

In addition, CWF found the height of dominant vegetation remained low in the grazing plot (50%) compared to 33% in the control plot, and 0% in the chemical plot. This grazing yielded an increase in native gram monoids and a decrease in broadleaf plants, which is desirable in bog turtle habitats.

Next question: did the buffalo create new habitats for bog turtles? Yes! They found at the beginning of the study when they performed the vegetation survey, there was nesting habitat in 28% of the grazing area plots and this increased in locations that had previously been colonized by phragmites. They found that appropriate nesting habitat decreased in 50% of the control plots that had contained quality habitat at the start of the study. While no bog turtles were located, they did find spotted turtles basking in puddles that were opened by the grazing efforts. Spotted turtles have a substantial overlap in habitat requirements with bog turtles.

The final question: does grazing measurably impair water quality? No! The nitrate levels across the site were consistently within levels of safe drinking water; phosphate levels were below the tolerance limit of native amphibians, and nitrate and phosphate levels were generally the lowest in grazing plots (although this result could be a result of surrounding communities that may have used fertilizer on their lawns or the buffalo grazing before the plants had an opportunity to die and decompose). This CIG takeaway was that livestock was able to effectively reduce undesirable vegetation in wetland habitats without having a negative impact on water quality, thus supporting an increase in their use. Low stocking rate plus adequate monitoring plus livestock adapted to hard conditions will result in a net positive impact on wetlands.

12:53 Open Discussion – Evan Madlinger, NRCS

George Cassaday spoke up, representing farmers in Salem County. He is very happy working with the NRCS Woodstown Service Center and NJA. Farmers are happy about some of the initiatives rolled out, such as no-till, waterways, and CREP. However, there are some lingering issues from the springtime and irrigation practices. George brought up not knowing how the cost was being addressed with inflation (seed price hiked three times the amount since spring) nutrient management and drip irrigation. Fran DeFiccio brought up the opportunity to look at the dollar values and adjust with backup (bills, invoices, or documentation that can be supplied) as that would help make the determination and get those costs changed. Evan Madlinger said that they are allowing states to individually gather data and try to have some more influence on regional scenarios. Kaitlin Farbotnik brought up challenges we face when working on these, they need very itemized bills, quotes, receipts, equipment, seed, and labor. The more information and itemized the breakdown is, the better it will be when NRCS makes a case to the national office.

Kathy Hale had a late update – the recent round of DEP grants that were announced included money to continue their cost-share program in the Spruce Run Watershed. This announcement was just made so there is no start date yet, but the total brings approximately \$100,000 more of cost-share that will match the NRCS cost-share.

1:08 Adjourn, Evan Madlinger, NRCS