

Tennessee State Technical Committee Meeting Minutes

August 8, 2023

9 a.m.

GARRETT MORRIS-ASSISTANT STATE CONSERVATIONIST (PROGRAMS)

- Introduction-
 - Thank you for joining into our fourth quarter State Technical Advisory Committee meeting.
 - Both State Conservationist, Sheldon Hightower, and Acting State Conservationist, Karri Honaker are out of town this week.
 - I am the Assistant State Conservationist for Programs serving NRCS Tennessee. I recently accepted this position within the past couple of months after serving the past eight years working with NRCS Georgia. I am a Tennessee native, so I am excited to be closer to home. I am more excited about working with the folks within NRCS Tennessee, and even more excited about working alongside our partners.
 - We definitely have some great partners lined up on the agenda today to cover some updates, but I want to take some time and extend my gratitude to both Mr. Hightower and Ms. Honaker for allowing me the opportunity to meet with you all today and share some of the great things that are going on across the state of Tennessee with NRCS, as well as our partners, as it relates to agriculture and conservation in general.

- We have some great partners on today to cover some updates all the way from Brandy Broughton with Farm Service Agency, and John McClurkan with the Tennessee Department of Agriculture. We have Dustin Bowles with the US Fish and Wildlife Service, Mike Butler representing the Tennessee Wildlife Federation, as well as some NRCS folks. We have Chase Coakley, one of our Biologists, as well as Mr. Adam Daughtery, one of our district conservationists who will be covering soil health updates out of Area 3.
- Looking over the past few months since I've joined our team here at NRCS Tennessee, I think we've done a great job. We have a few things to do with closing out fiscal year 23 and looking forward to fiscal year 2024, but we've done a great job up to this point.
- We've obligated greater than 95% of our initial allocation in terms of EQIP funds. We are looking to do the same with Conservation Stewardship Program. We're bringing on or moving forward with quite a few new applications with our ACEP program with easements. We've made a significant amount of Farm Bill Program payments this year and looking to make some more before the year ends.
- I would definitely be at a loss if I didn't extend my gratitude to the Programs Planning Staff that works out of Nashville Tennessee. We have a few of them on our call today. We have a Mr. Robert Boettcher. He'll be addressing our EQIP and RCPP updates. We have Bill Norfleet. He will be taking care of our Conservation Stewardship Program updates. We have Mrs. Pam Hoskins, who collaborated with David Brasher, on her updates for ACEP and easements.

ROBERT BOETTCHER-EQIP Program Manager

- **Introduction**

- My name is Robert Boettcher, and I primarily work with EQIP. I also worked a little bit with RCPP, and I will be running the slides here for the Tennessee NRCS programs. We will start off with the EQIP report, and I should note that all these slides will be shared with everyone or distributed through the website through the notes.

- **EQIP FY23 Funding**

- EQIP Report-starting in \$42,145,084 funding, in a nutshell everything that is done with EQIP.
 - EQIP General-\$33,135,471
 - EQIP CIC (Conservation Incentives Contracts)-\$1,498,881
 - NWQI (National Water Quality Initiatives)-\$668,967
 - MRBI (Mississippi River Basin Initiative)-\$2,495,192
 - Golden Winged Warbler (Working Lands for Wildlife)-\$43,625.
 - Joint Chief (Joint Restoration Watershed Project, Forest Service)-\$879,667
 - EQIP IRA (Inflation Reduction Act)-\$3,423,281 (40% obligated)
- Applications-
 - 3,777- This is a high number of applications and shows that everyone is doing their part. We're doing our part for outreach and producers are interested in getting not only financial assistance, but technical assistance as well. It is good to have a little bit of backlog going into future years, so

that we can ensure that we're able to utilize that funding and pick the best projects.

- Contracts/Approved Applications-1,065 (28%)
- Eligible Applications not funded-2,011 (53%)
- Cancelled/Deferred/In-eligible-701 (19%). These are the ones that we were either offered funding to or they dropped out of the running.
- \$42 million is a record year for the amount of EQIP dollars spent.
- Goals-
 - Each year, National Headquarters sets a programmatic goal that we must hit for wildlife and livestock, that goal being 10% and 50%. We were able to utilize our funds this year to hit those goals to this point.
 - Wildlife 16% (10%)
 - Livestock 52% (50%)
- 51% of \$40mil was able to go to historically unserved.
- IRA- will be working its way through for the next few years. What is the best way for us to utilize those climate smart resources?

BILL NORFLEET-CSP Program Manager

- **CSP Obligations-**
 - We are currently in the middle of obligations, but we should have an update by our next meeting for CSP obligations across the state.
- **Important Deadlines:**
 - June 30, 2023-CSP Classic Ranking Deadline
 - July 5, 2023-CSP Classic Preapprovals

- July 21, 2023-30% Obligation
- August 4, 2023-60% Obligation
- August 25, 2023-80% Obligation
- September 8, 2023-FY23 CSP Classic Obligation deadline (NHQ Deadline)
- **Classic and IRA Contracts-**
 - We had about 512 applicants for CSP within the state combined with IRA.
- **Initial Allocations-**
 - CSP Classic: \$11,800,000.00
 - CSP IRA: \$5,359,004.00
 - CSP MRBI: \$1,429,247.00
 - CSP Classic Organic: \$200,000.00
 - Total FY23 CSP Allocation: \$18,788,251.00
- **FY23 CSP Classic Obligation Status-**
 - 8/7/2023 Obligations:
 - 142 contracts
 - \$5,086,990.00
 - 49,156.60 acres contracted.
 - IRA Obligations:
 - 62 contracts
 - \$1,663,883.00
 - 16,083.8 acres contracted.

ROBERT BOETTCHER-EQIP Program Manager

- **RCPP Report-**
 - 1684-Reversing Declines in Grassland Biodiversity
 - Expires this year.
 - FY23-5 contracts, 514.9ac, \$39,000
 - 1789-Advanced Precision Ag for Sustainable Conservation
 - Expires this year.
 - FY23-21 contracts, 9,297ac, \$860,000.
 - 2265-Upper Clinch Powell Watershed Program
 - Expires June 2026.
 - FY23- 2 Contracts, 514.9aac, \$100,000.
 - All project funding utilized.
 - 2753-Ridges to Rivers Protecting the Cumberland Plateau and Sequatchie Valley for Aquatic resources Management
 - Pending project finalization.
 - We are taking applications right now for new RCPP projects, so closing the door on several projects that have been around for several years and we've been able to implement a great amount of conservation through and opening the doors for some possible new projects coming in here soon.

PAMELA HOSKINS-Easement Program Manager

- **ACEP FY23 Program Applications**
 - The ACEP FY23 initial sign-up period had a cutoff date of November 3, 2022.
Second ACEP sign-up cutoff date was February 10, 2023.

- The ACEP FY24 announcement should be out September 2023 with an expected cutoff date to be the first part of November 2023.
- Tennessee is currently moving towards obligation on 10 WRE applications which will cover approximately 1,203 acres.
- Additionally, we have one application to convert an existing 30-yr WRP easement (174.4) into a permanent WRE easement.
- **Tennessee Regions FY23 ACEP-WRE AWMA GARC Map**
 - The GARC Map is used to create a basis for the purchase of conservation easements through the ACEP-WRE by placing a value per acre in different geographical areas of the state.
 - An Area Wide Market Analysis (AWMA) is conducted by a private certified appraiser. The appraiser gathers data from property sales over the last 12 months on properties that fit the categories listed on the map. Once the data is collected, the appraiser summarizes the data to calculate an average value for each geographical area. Tennessee has decided to provide compensation based on 95 percent of the average value, then round to the nearest \$50.00.
 - Preparation has begun for the FY24 GARC and there will be some slight changes for the per acre rates. Plans are to have the new GARC ready for the committee review at the next State Technical Committee meeting.

BRANDI BROUGHTON-Farm Service Agency

- **Conservation Reserve Program (CRP)**
 - CRP is a voluntary, land conservation program.
 - Goal is to re-establish valuable land cover to:

- Protect the nations soil, water, and wildlife resources.
- Improves and preserves water quality.
- Enhances fish and wildlife habitat.
- Address conservation initiatives for local, State, Regional, and National objectives.
- 3 Options: General CRP, Continuous CRP, Grassland CRP
- 10–15-year contracts.
- Annual Rental Payments
- CRP Authority ends on September 29, 2023
- FY2023 Soil Rental Rates can be found on the following website.

<https://www.fsa.usda.gov/programs-and-services/conservation-programs/reports-and-statistics/conservation-reserve-program-statistics/index>

- **Cost Share Assistance**

- FSA provides cost share assistance to participants who establish approved cover on eligible cropland. The cost-share assistance cannot exceed 50 percent of the participant’s costs to establish approved practices.
- Cost Share + Cost Share from other funding sources + Payment Incentive Payment (PIP) cannot exceed 100% of total installation cost.

- **General CRP**

- Annual signup with deadline.
- Subject to competitive bidding (EBI score)
- In addition to the eligible land requirements for the CRP general enrollment period, cropland must meet one of the following criteria:

- Have a weighted average erosion index of eight or higher.
 - Be expiring CRP acres.
 - Be located in a national or state CRP conservation priority area.
- **Continuous CRP Signup**
 - Ongoing signup except re-enrollment offers.
 - Includes Regular, HELI, SAFE, and CLEAR30.
 - Not subject to competitive bidding.
 - Land devoted to certain conservation practices such as grass, waterways, filter strips, and riparian buffers.
 - If the offered acres are not currently enrolled in CRP, then the producer may choose to defer the effective start date of the new CRP contract for up to six months after the offer is approved.
- **CRP Signup Enrollment Options**
 - General CRP Signup 60
 - Current signup ended April 7, 2023. Over 2.0 million acres offered. The Secretary has determined that 1,065,409 of the 1,185,888 million acres will be accepted and enrolled beginning on October 1, 2023, for program year 2024. The National average annual rental rate per acre for enrolling this acreage is \$65 per acre. Offers with an EBI score of 184 or greater were determined basically acceptable. Tennessee has an acceptance rate of 100% of total offers submitted in 25 counties. Great job everyone!
 - CRP Grasslands Signup 205
 - Current signup ended May 26, 2023.

- Forest Management Incentive
 - The authority for FMI ends with the expiration of the 2018 Farm Bill on September 29,2023, or until funds are depleted.
- Continuous CRP Signup 59 (Regular, HELI, SAFE, CLEAR30)
 - New land offers and Re-enrollments signup for expiring contracts ended on July 31, 2023. TN had over 700 offers submitted in FY23.
- Transition Incentive Program
 - Signup is ongoing until September 15, 2023.
- **Continuous Signup 59 Deadlines**
 - July 31, 2023
 - Deadline for producers to submit an offer for re-enrolled land or combination new and new-enrolled land or continuous CRP signup 59.
 - August 7, 2023
 - Deadline for producers to request a conservation plan from NRCS. County Office deadline to enter the status in COLS as “Submit for Plan” continuous CRP signup 59. *Note: FSA must provide offers to NRCS within 5 workdays of receiving the submitted offer from the producer*
 - September 8, 2023
 - Deadline for NRCS/TSP to complete the conservation plan, sign, and obtain signatures of all signatories on CRP-1, and return the conservation plan to FSA.
 - September 29, 2023

- Deadline for COC or CED to approve CRP-1's and load CRP-1 approvals in COLS. *Note: There is no authority to approve CRP-1 after September 29, 2023, for offers that include re-enrolled land for continuous CRP signup 59*

- **General Signup 60 Deadlines**

- Key dates in processing general CRP signup 60 offers are identified in the following table.

Action	Completion Date
County Offices must review offers on the ranking reports and conduct eligibility and data reviews according to subparagraph 3 B and 2-CRP, paragraph 341, to detect any erroneous and omitted records.	Immediately upon receipt of this notice and not later than June 20, 2023.
County Offices must begin notifying producers with acceptable and rejected offers.	Immediately upon completing actions required in subparagraph 8 A. No later than noon on June 20, 2023.
County Offices provide documents necessary to complete conservation plans, according to 2-CRP, subparagraph 341 D, to NRCS or TSP.	Within 5 business days of notification by producer that the producer wants to continue with the offer.
Conservation plans must be completed and approved by NRCS and returned to FSA.	No later than August 11, 2023.
CRP-1's must be approved by CED or COC and entered in COLS.	No later than COB September 29, 2023. There is no statutory authority to approve contracts after COB September 29, 2023.

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- **Forest Management Incentive (FMI)**

- Authorized until funds are exhausted.
- CRP FMI eligibility is limited forest cover established under the certain practices. (CP3, CP3A, CP4D, CP11, CP22, CP22, CP22B, CP22S, CP31, CP36, CP38-A-22, CP38C-3, CP38-3A, CP38C-31, CP38D-36, CP38E-4D)
- Not Eligible: CRP Contracts in years 9 & 10 of a 10-year contract and years 14 & 15 of a 15-year contract.

- NRCS Technical Practice codes and NRCS National Payment Scenarios will be used.
- FMI payments will be based on the lesser of the actual cost or 85% of the NRCS National Payment Scenarios.
- CRP FMI payments ARE NOT authorized in addition to cost-share payments for practices eligible for both payments.
- Important: All CRP FMI obligations and revisions to existing FSA-848A's must be completed by September 29, 2023. No revisions to FSA-848A's will be made after this date.
- **CRP Transition Incentive Program (TIP)**
 - TIP provides landowners and operators with an incentive to return land to production on an expiring CRP Contract in a way that preserves established conservation practices.
 - TIP enrollment is on a continuous basis and may occur up to two years before a contract is set to expire.
 - To qualify for TIP, the landowner or operator must either sell this land, or lease it to a beginning or socially disadvantaged farmer or rancher.
- **CSP Grasslands**
 - Working lands programs that emphasize support for grazing operations, plant and animal biodiversity and grassland and land containing shrubs and forbs under the greatest threat of conversion.

- The minimum rental rate is \$13 per acre. Grasslands CRP Offers located in the Grasslands CRP National Priority Zone will receive an additional 15 ranking points.
- Beginning, Socially Disadvantaged, or Veteran farmers or rancher participants will receive an additional 10 ranking points.

- **CRP Grasslands Signup 205 Deadlines**

- The following table provides guidance on actions and key completion dates.

Action	Completion Date
County Offices must review offers on the ranking reports and conduct eligibility and data reviews according to subparagraph 3 B and 2-CRP, paragraph 341, to detect any erroneous and omitted records.	Immediately upon receipt of this notice and not later than July 26, 2023.
County Offices must begin notifying producers with acceptable and rejected offers.	Immediately upon completing actions required in paragraph 3, no later than noon ET on July 26, 2023.
County Offices provide documents necessary to complete conservation plans according to 2-CRP, subparagraph 341 D, to NRCS or TSP.	Within 5 business days of notification by producer that the producer wants to continue with the offer.
Interim conservation plans must be completed and approved by NRCS and returned to FSA.	No later than September 15, 2023.
CRP-1's and FSA-848's must be approved by CED or COC and entered in COLS.	No later than COB September 29, 2023. There is no statutory authority to approve contracts after COB September 29, 2023.
Final conservation plans must be completed and approved by NRCS and returned to FSA.	No later than December 15, 2023.
Final conservation plans must be approved and final FSA-848A's completed and approved.	No later than January 19, 2023.

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- **Emergency Conservation Program-Emergency Forest Restoration Program**

- Provides emergency funding to farmers and ranchers to rehabilitate farmland damaged by natural disasters.
- Eligible lands include commercial farming, ranching, nursery, livestock, waterways, terraces.

- Cost-share payments up to 75% of cost or 90% for limited resource farmers and socially disadvantaged producers.
- Participants may rehabilitate farmlands by:
 - Debris removal
 - Restoring fences
 - Restoring conservation structures
 - Grading shaping, or leveling land
- EFRP is a cost share program that provides emergency funding and technical assistance to owners of Non-Industrial Private Forestland (NIPF) to carry out emergency measure to restore forest health and forest resources on NIPF damaged by natural disasters.
- Nonindustrial private forest land means rural commercial forest lands with existing tree cover, or which are suitable for growing trees, that are owned by a private non-industrial forest landowner as defined in this section.
- All the following must be true or Land Eligibility:
 - Land must be physically located in the county affected by the natural disaster.
 - Land must have or had existing tree cover before disaster event.
 - Damage that, if not treated, would impair, or endanger natural resources or affect future use of NIPF.
- The following activities may be covered under the EFRP practices:
 - Debris removal
 - Site prep
 - Planting

- Fence
- Conservation Structures

JOHN MCCLURKAN-Tennessee Department of Agriculture

- **Section 319 Nonpoint Source Grant Program**

- The notice for applications for 2024 funding will go out at the end of September, and the deadline for applications will be December 1st. If you or your organization have an interest in this grant program, please look on to the Tennessee Department of Ag's website and contact Doctor Sam Marshall. Sam is the manager of that program and will be happy to answer any question that you may have.

- **Tennessee Riparian Incentives Program (TRIP)**

- The Department of Agriculture was given some funding through the Tennessee Valley Authority to provide additional incentive payments to landowners who install riparian forest buffers. Any landowner interested in a continuous sign-up CRP contract on their land if they're eligible for that and they work with FSA NRCS to get that plan implemented. Once it's all completed there will be a notice given to us and we will provide the landowner with a one-time additional incentive payment above all the other incentives that come from the Farm Service Agency through the continuous signup CRP program. We're working on putting the finishing touches on the informational fact sheet that we will widely distribute to everyone. It will be on social media. We will go through the Soil and Water Conservation districts. All the FSA offices and NRCS staff will get a fact sheet

and we will work with our NRCS team to distribute this out to all the State Technical Advisory Committee members as well, just to get the word out about this.

- **Survey Results**

- The results of the survey from our producers about nutrients and nutrient management will be published soon. This past winter, we worked with the UT extension in Knoxville to produce the first of, what we hope are annual surveys of Tennessee producers asking them questions that don't really get asked a lot about conservation practices.
 - We had almost 500 responses to this survey. We hope in the next few months that we're going to do a better job up front getting the word out up front and early that the survey is coming up and get at least 1,000 or maybe more producers to fill out this very short survey.
 - In this survey, we found that 86% of all row crop survey respondents stated that they did soil testing.
 - 76% of respondents said that they determined how much fertilizer to apply based on soil tests, which is incredibly good news, and we hope that percentage will hold.
 - The larger the sample size we get in future surveys, we also note to no surprise 90% of all the survey crop producers use no till. 60% of all survey crop producers use cover crops and some of the most encouraging answers were that in the last five years the survey creators were very clear in my opinion is they ask the producers who filled this out to kind of look back

at the last five years. The respondents indicated that in the last five years they have increased no till cover crops, soil testing, use of nitrogen stabilizers, and the total fertilizer applied had decreased. In the next five years they expect to continue to increase cover crops, no till testing, and use of nitrogen stabilizers. From a water quality perspective and an economic perspective, this is very encouraging to us, and we hope to continue to do these surveys and more will be coming about that in the days to come.

- Most of the states across the Midwest do surveys. They have done producer surveys annually, and it's something that we need to do because some of these questions are very important information to know where our producers are headed and what they're doing with respect to conservation programs. If you have any ideas about questions or subjects that should be covered on this survey, please feel free to share those as this is not as closed set of questions. There are some good reasons to ask the same questions every year, but we can certainly add questions to it too.

DUSTIN BOLES- US FISH AND WILDLIFE SERVICE PFW PROGRAM-Acting State Coordinator

- **Partner Program**

- TWR hired a private Wetlands coordinator to run that side of the house for them, and we're excited about that position here at the service, Brad Miller, and I look forward to working with him.

- **Goals**

- Wildlife Sub-Committee

- Provides recommendations top State Conservationist regarding programs and initiatives that involve the establishment or enhancement of wildlife habitat.
 - Provide consolidated recommendations on Conservation Practice Standards, considering their effectiveness concerning wildlife conservation.
 - Work to identify priority areas for State Conservationist consideration in developing NRCS programming.
 - Provide assistance to NRCS in developing initiatives, such as WLFW.
 - Recommendations will be presented during general sessions of STC.
 - Special assignments as requested by State Conservationist.
 - Expect to meet quarterly, at a minimum.
 - Next meeting tentatively scheduled for Nov 14.
 - Will be facilitated by Dustin Boles (USFWS) and Brad Miller (TWRA)
 - We will be working closely with Robin Mayberry (NRCS)
 - How do I participate?
 - Please send an email to Dustin Boles with your name and contact information.
 - Multiple representatives from your agency/organization are invited to participate.
 -

CHASE COAKLEY- NRCS Area Biologist, Cookeville TN

- **Cumberland Plateau Strategic Planning**

- What is it?
 - An overview of opportunities and initiatives with common goals that strengthen collaboration between partners while identifying opportunities to leverage resources that strategically deliver conservation.
- Partnership Meeting
 - It will be tomorrow in Crossville, Tn. This meeting is called the Cumberland Plateau PFW (Partners for Fish and Wildlife) focal area meeting. That's a program through Fish and Wildlife Service that acts a lot like EQIP, or TDA ARCF where they can leverage conservation dollars to help with voluntary conservation on private lands to focus on species conservation and address a lot of resource concerns.
- Mission Alignment
 - PFW- working with others to conserve protect, and enhance fish, wildlife, plants, and habitats.
 - TWRA- preserve, conserve, manage, protect, and enhance the fish and wildlife of the state and their habitats.
 - TACD- conserve, manage, protect, and enhance the fish and wildlife of the state and their habitats.
 - TACD- conserve and enhance the natural resources of Tennessee.
 - NRCS- delivery of conservation solutions so that agricultural producers can protect natural resources and feed a growing world.

- TDA-Serve, support, and promote agricultural.
- TNAQI-to inspire wonder, appreciation, and protection of water and all life that it sustains.
- PFW Strategic Planning-
 - 2022-2026 National, Regional, and State Priorities
 - Species Conservation
 - Habitat Conservation
 - Resilient Ecosystems
- Ridges to Rivers
 - It is a great opportunity to focus on aquatic improvement, species conservation, water quality, and a variety of things.
 - It is spearheaded by the Tennessee Aquarium in partnership with NRCS and many other partners to target some focal counties and reach some objectives to really benefit some in peril species.
 - Consider this as an up-and-coming element. Although this is an approved proposal, the final details of the agreement and how the program is going to roll out is still yet to come, but just something to be looking at on the horizon that may increase opportunities in various programs via EQIP, CSP, or even some easements.
 - Geographic Area of Ridges to Rivers:
 - Cumberland Plateau
 - Sequatchie River Valley:
 - Cumberland County

- Bledsoe County
 - Sequatchie County
 - Marion County
 - Rhea County
 - Hamilton County
- Critical Habitat-Threatened and Endangered Species:
 - Laurel Dace-Cumberland Plateau
 - Slab-side Pearly Mussel-Sequatchie River
- TN Aquatic Framework
 - Fourteen HUC 8 Watersheds
 - A strategy to guide restorations of rivers and wetlands to support habitat connectivity in watersheds with significant at-risk species.
 - Aquatic focused WLFW species will be reorganized into an Aquatic Framework and expanded into other priority watersheds.
 - Landscape Scale-provides an effective mechanism to target conservation actions across large geographies while supporting locally led conservation.
 - Enhanced Partnerships-elevates the importance of conservation planning and priorities added technical capacity through streamlined partnership opportunities at national/state/local levels.
 - ESA Predictability-credits voluntary conservation actions in Endangered Species Act regulatory decisions and provides

increased regulatory predictability for producers across USDA conservation programs that supports economic stability.

- Program Alignment-allows for better local and national alignment of USDA conservation programs that supports economic stability.
 - Program Alignment-allows for better local and national alignment of USDA conservation program participant opportunities locally to maximize opportunities to address multiple resource concerns.
- WLFW Golden Winged Warbler-
 - Potentially a New Framework
 - “Eastern Deciduous Forest”: A strategy to achieve forest health and habitat restoration that benefits declining wildlife dependent on young forests.
 - Northern Bobwhite, Grasslands, and Savannas
 - Major threats include:
 - Habitat loss and fragmentation
 - Climate change
 - Alterations to natural land disturbance regimes
 - Invasive species
 - Cumberland Plateau Stewardship Fund
 - Goals and Objectives
 - Restore and enhance shortleaf pine and oak savanna forests on public and private lands.
 - Restore and enhance riparian forests and freshwater habitat.

- Increase populations of forest and grassland birds, as well as fish, amphibians, and other aquatic species.
- Engage private landowners through outreach, training, and technical assistance activities that contribute to the restoration and enhancement of habitats and wildlife and supports working forests by demonstrating their environmental and socio-economic benefits.

ADAM DAUGHTERY- NRCS District Conservationist, Coffee County, TN

- 10 Years of Soil Health
 - Potential
 - Adjective-having or showing the capacity to become or develop into something in the future.
 - Noun-latent qualities or abilities to that may be developed and lead to future success or usefulness.
 - Latent-quality or state existing but not yet developed or manifest, hidden or concealed.
 - Recognizing “The Resource’s” Potential
 - Soil Degradation-tillage system
 - Soil Conservation-no-till system, soil loss “T”
 - Soil Rejuvenation-soil health system
 - So, we are talking about this resource that is just sitting there waiting to be restored, waiting to be rejuvenated to how it’s designed to naturally function. Over the last 10 years, I think we’ve been able to

show that this is not just a buzz word. It's not something that we just had high hopes for, we've got a pretty good track record going on where it has been successful for us and not only us for outside of this area.

- John McClurkan was talking about now that 90% of the producers surveyed or saying that they're using no till, and that is great. When we moved into no till systems we have moved out of state of degradation into a state of conservation, and conservation is a lot better than degradation.
- Conservation is just taking something at whatever state it is in. It's not getting any worse, but also not getting any better. We're going to conserve that resource, and we have the potential to go above and beyond conservative degraded resource. We do have the potential to move into a soil health system where we can actually rejuvenate this resource to where it's functioning at a much higher level than what it was previously from just a standalone, no-till system.
- Once we started working with long term no-till fields and working with producers, we didn't have to wait around too long even without the test and without seeing a lot of the analytics we could just take anecdotal observations in these fields. When you can start seeing a field transform just in two years when we start pumping sunshine through it as many days out of the year as we can and starting see changes, we know we're on to something.

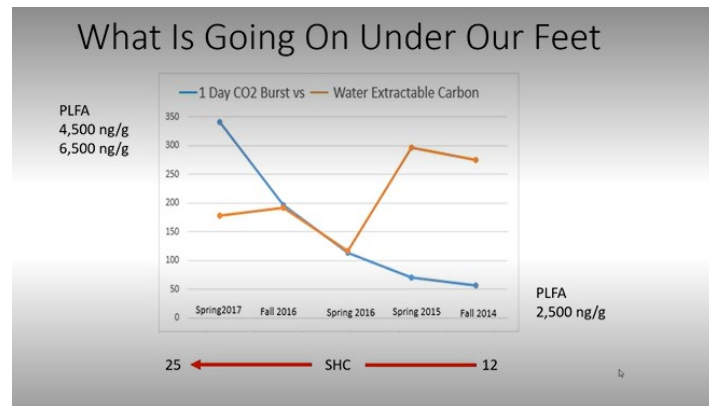
- Those results kept us pushing, and it's been highly successful going down this road, and the thing about it is that we're not just seeing these results in Coffee County or in Area 3, we're seeing similar successes no matter where these principles are being applied.
- Ten years ago, we started with fields that had been no tilled for 20-30 years. People had committed to the no-till way of farming, and so we started out with a pretty good, conserved slate. We started with what I like to call enhanced no-till, and that's where we came in following our cash crop rotations, planting a diverse mixture of cool season cobra crops, and then just like most folks, we got scared of them and terminated them before they got too big. The good thing is that we were still seeing good results on this, and erosion was decreased significantly.
- Our infiltration rates were doubling, our long term no-till fields were infiltrating in and inch and a half-two inches per hours, and right off the bat when we started taking the energy out of the raindrop, increasing soil aggregation, we started seeing the infiltration rates double and the three-four inches per hour is huge when we're looking at only solar erosion. When we're looking at runoff and the top business, it's making big strides quickly.
- So, when you're starting to make changes, you're seeing that you're seeing positive strides and all the cards are lining up, we just keep pushing on, and human nature will just kind of lead you into a little bit,

and then a whole lot, and then some more. After a couple of years, we started rolling into managing more biomass. This is where we really started learning these systems seeing how the potential, we really have from going from conserving resources to actually starting to rejuvenate the resource, tapping into some of these things that we were hearing about.

- As far as the organic nutrient cycle increasing, increasing the habitat biodiversity, what effects will you have on that? So, we moved into that in years three and four. Then as it turns out, we just kept pushing the envelope and getting to manage more and more biomass. We started to see the number one challenge in this, and started seeing what changes we were going to have to have as producers as technical advisors if we were going to preach the gospel in these systems.
- We also had to help folks start managing these systems and it's not just about planting cover crops, letting them grow big and crimping them down. This is where we got started actually learning how to manage these systems, learning how we had to start changing our nutrient management, how we started making adjustments to our pest management, incorporating this whole ecological farming system, and basically doing a high level of rejuvenation on these farmlands. Also, the bottom line is these folks got to stay productive. So, when we can manage these systems and make all the cool pictures and slideshows that we want, but when it comes time to run the combines ad the end

of growing season, we have to be filling the bins. Luckily, we were able to keep doing this, not taking any decreases in any of our yields or certainly not in our profitability.

- So, we've done this for a while, and we were seeing a lot of anecdotal stuff that was looking good to us. The creeks were running clean, and folks were seeing reduced weed pressure, but we wanted to dive into it just a bit deeper. We wanted to know more about what's going on underneath our feet. What is happening that we can't see with our eyes? We've done a lot of testing; I think we had about three years of data collection that went on. We had a lot of partners involved in the Tennessee Department of Agriculture helped the Soil Conservation District financially, we've been able to do these tests. We covered 18 producers and 58 fields covering about 1800 acres that we were spending a lot of time collecting analytical data just to show some of these folks. One of the main things that we were looking was a CO2 burst from where we started out initially in the fall of '14 to where we stopped taking these tests this round in the spring.



- The blue line is substantially increasing and that's a sign that as we had started capturing sunlight and feeding the biology. Our population was increasing and working for us. You can see where Water Extractable Carbon is the orange line, which started on the right. We had a big time decrease in that, and then it started increasing again before it stabilized. This gave us problems. When you're doing these systems, you want to see everything increasing. What we were doing is increasing the biological population and diversity so quickly in the no till soils that we were having a hard time pumping enough carbon into the system to feed them. Now as we've started diversifying that biology and getting everything back in tune, we started to see a more stable trend. The systems are really cranking and the academic soil health calculation that's attributed to some of these tests, we have doubled it over the three-year period. Looking at the phospholipid fatty acids, we were doubling nearly tripling those.
- That PLFA is a measure of the total biomass of the biology and nanograms per gram of soil. The left-hand side where you will see figures 4500 and 6500, we found that there were very clear outliers. Some of the fields had livestock integration back onto the crop land. We found in the fields that we were integrating the livestock on were on the fast track to increasing the productivities fields and it played true for us in our area.

- One thing that we did start noticing, when you start hearing folks talk about increases in organic matter, you find out very quickly that's not a metric that we're concerned with. I would love to have extremely high organic matter soils that are extremely high and in biological activity, but I'm more concerned with how much energy I have flowing through the system and in our geographical region here in the Southeast. We're not going to be building label laws, ignition organic matter. I am not anti-organic matter by any means, but it's not the metric in our area that we need to be looking at for success. If we get it as a byproduct, that's fine. If we're making big strides in organic matter, we're probably having low strides and biological activity. It's a slow road to be looking at that for a metric. To reach this potential no matter if you're talking from the NRCS side, or any of the other partners that're on this call today, we all have the same ingredients that we're going to be working with and it's going to be the sun, the soil, and the plants. The missing ingredient that I've found whether it be from a technical side, a producer side, or partner side all involved have a key role to play in this. We have the same ingredients to bake up this masterpiece. We've become the chefs, and we're the ones that when the rubber meets the road on whether we're going to degrade a resource, conserve a resource, or if we're going to work with that resource to make it reach its full potential.

- I think we can shift our mindsets a little bit as the rejuvenation of this resource does not start with the implementation of these principles, but rather we have to commit understanding ecological functions. We have to know the why before the how and the simple parts. We have to know why we need to keep soil covered. We need to know why it's important that we have biological diversity out there. We have to know why it's important that we are photosynthesizing and feeding the soil as many days as possible. Once we start having an account of these whys and why they're important no matter what we're looking at whether it be wildlife, endangered species, or crop production. They all share a similar why and we're not using when we can use a lot of the same how's.
- We have to know why before we start worrying about how to fix something, and one thing that I am pretty confident in saying is when we put these ingredients together, they're going to work for the resource. When we combine sunlight, a plant, and soil it's going to do its thing. Now, it might not do its thing at the speed we want. We may not get the exact results that we want, but the soil is doing what it wants and mimic it instead of trying to shove a square peg into a round hole with some of the way we do things, when we're talking about this soil the better off we are all going to be.
- When I talk about these potentials, what are the potentials that we have in Coffee County and Area 3 or across anywhere that the sun shines.

We try to grow something, and we'll be looking at the resiliency. That is the main thing we're looking at with moisture, temperature, paths, structure, the organic nutrient pool, and these potentials are going to be the best under any climatic conditions.

- There's going to be times when we're wet. There are going to be times when we're dry. However, a function resource that's resilient is going to shine under any of these conditions.



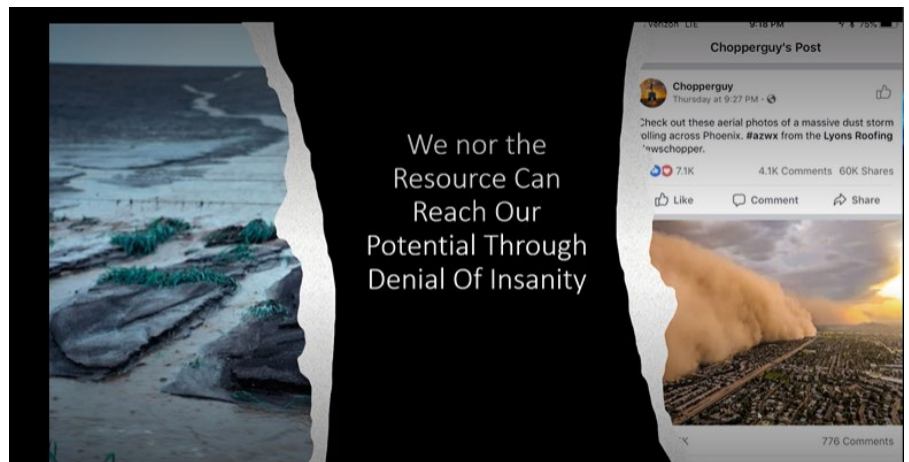
- We have two fields a green bean field on the left, and the Holy Grail field on the right. The Holy Grail field has not seen tillage since 1940 and has had a living plant growing on it since 1940. Our cropping systems worked. It was tilled early on, went into a no till, and then it went into these cover systems that we've talked about. That 1940 versus we've had 60 something years or going on 80 years now without any tillage, and it's all been sunlight. It keeps on shining and it does it in good years.

Year	Crop	Green Bean	Holy Grail
2014 Ideal	Corn	230	283 315 NCGA
2015 Dry	Soybeans	51	64
2016 (D4 Drought)	Corn	105	192
2017 Wet	Soybeans	56	76
2018 Real Wet	Corn	204	229

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- This gives us the potential to fill the bins to keep the creeks clean to keep going because we're increasing resiliency every year.
- We have these principles to reach the resources potential:
 - We have to keep the soil covered no matter what partnership we're dealing with if we don't take the energy of the raindrop then the fight is lost right then and there.
 - We have to keep the living plant because the energy system on all of this is the sun, and we are just fooling ourselves if we think we can capture energy without a living plant diversity.
 - We have to understand all of these synergistic collaborations, but what we as humans have the ability to pump diversity, and we need to take advantage of that. When we look at anything that's occurring fully, self-sufficient, functioning in nature, and it will not be monoculture. It will be highly diverse.
 - We as planners, technical advisors, producers, and citizens of the community have to understand what tillage does and

restore its effects. Anytime that we can integrate livestock or mimic that integration, that's going to produce those positive results.

- One thing that we have to look at from a partnership standpoint, from a technical agency, NRCS, TDA, as everybody involved in this stuff is that we are not going to get positive results in reaching this potential through denial.



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- Soil Conservation Service on April 27, 1935- For 88 years we've been working at addressing some of these resource concerns. This stuff is not rocket-science, but we've got to deny insanity on things such as this Facebook post. I don't think we had Facebook around when the Dust Bowl was going on, but that looks like the dust pictures from the Dust Bowl. To me, that is just human nature practicing insanity, and at some point, in time through our decision making, we have to look back and ask if we are making changes in fixing a problem or are we applying insanity expecting different results.

- By looking at Coffee County pushing around \$14 million with a lot of acres covered and a lot of partnerships involved, I think that shows that not only in Coffee County but other counties and states around the nation have centered their efforts and delivering conservation and soil restoration through soil conservation health programs.
- There is potential with these systems. There's potential with partnerships to show success as there's a lot of potential for producers to make money. There is potential for increases and positive trends in human health through these systems. When we can start providing feedstocks for us to consume in our body that are more nutritional and that are healthier for us that has big time implications. There is a big-time implication on the restoration of a family when you farm this way.
- If we want clean water, we start addressing the rain drop, and anything that we do that doesn't address the energy at the raindrop. When we started 10 years ago with just a general cookbook, we didn't know how to bake these systems. We hit some of the highlights and started following a recipe. Then over those ten years everybody that's working on these systems has their own recipe. They've tinkered with what works best for them and those recipes just keep getting better and better as we keep implementing these systems. And we kind of went from that, folks have been able to look at Tennessee, look at Area 3 specific counties and seeing the successes that we've had in these.

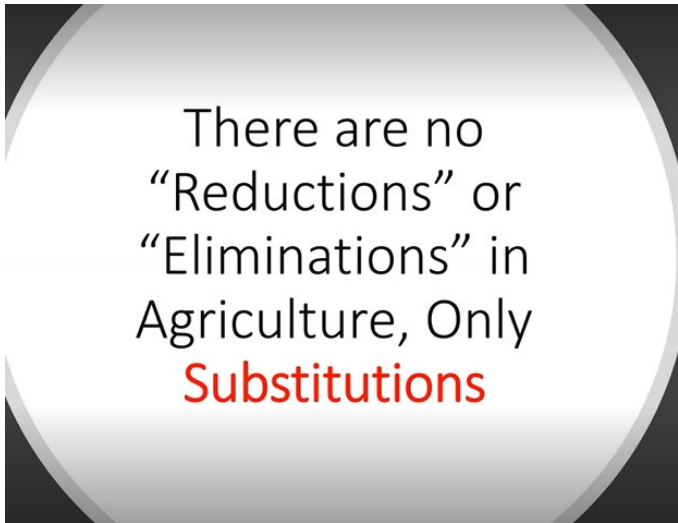
They don't want our cookbook, but they want to dive into our recipes and let us help them tweak what they're doing to find more success.

It's not just right around here, this is going national.



- Folks are wanting to learn about this, and we've been blessed here in this area that we've been highly successful, and it's been an honor for us to be able to share the success of our producers, our partnerships, and being able to spread this out across the land both domestically and internationally.
- AJ wanted me to highlight some of this because it doesn't just stay within our walls. We need to take the opportunity to share our story, our successes, and to be able to help others because we're all in this together. 10 years down, and where do we go in the next 10 years.
- I think as we move forward in production, agriculture, and these partnerships we need to keep in mind that we will continue to defy what nature wants. Nature does not want corn on 30-inch rows or soybeans planted 150,000 plants per acre. Nature wants to turn back into a highly diverse functioning ecosystem. However, it's going to be

the demands of what we need for feedstock for fiber. We're going to be planting stuff in straight rows. We have to look at what we can do when we work well. We're restoring the functions and increasing the potential everyday that we take a plan out to a field, or we take a spray rig to a field or anything that we're working with whether it be operations or rotating cattle. We have the potential to increase the function every day, and I think that's what we need to look at as we start moving forward in the next 10 years.



There are no
“Reductions” or
“Eliminations” in
Agriculture, Only
Substitutions

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- I put this slide on here as a way for us to think about the way we view some of this stuff, and I am not trying to take away from the words of reductions or eliminations in agriculture because it is really not that simple. There really are not reductions or eliminations. We're not just going to quit spraying as many pesticides. We're not just going to quit putting down as many nutrients, fertilizer. There's going to be substitutions and everything we do if we're wanting to increase pest management and we're wanting to start tapping into beneficial insects.

We can't just think about it, there's things that we have to act on. We have to start providing the habitat for these pollinators, providing the habitat for beneficial insects. We've got to find ways that we tap into this organic nutrient pool, and we can say that we're going to reduce nitrogen fertility and we can reduce it from that. We've got to be replacing it if we're going to be tapping into these other pools for us to be able to reach the yield potential economic potential. What's it going to take to sustain these farms and that type of business. Let's think about that as we're working and providing partnerships and providing education and working with farms and landowners and even discussing these things as internal partners.

MIKE BUTLER- TENNESSEE WILDLIFE FEDERATION

- I just wanted to give an update on our relationship with NRCS and the Farm Bill programs that we've been working with, but most of all y'all are probably aware that one of the ways we engage on Farm Bill programmatic work is really in Washington to help make sure that when we go through Farm Bill Reiterations like we are this year, the funding is there with a coalition of states that we've produced that can help push forwards and make sure that when we go through Farm Bill Reiterations like we are this year. The funding is going to stay, and the conservation titles are protected, and so we do quite a bit of work in that area. That's not very visible, but we're also pleased that we've been growing our stewardship and habitat restoration programs over the last 10 years. Most of you may be aware that we do a lot of wetland and stream

restoration, and we also have been doing a considerable amount of forest restoration, especially shortleaf pine work along with a lot of other partners over on the plateau that have received Farm Bill funding as well. Right now we are under a General Conservation partnership and I want to recognize Chase Hulan who is on our staff, as our forester, and I would like for him to be able to give an update to the committee as he's been in the saddle about eight months now.

CHASE HULAN-TENNESSEE WILDLIFE FEDERATION

- To date as of October since our GCP came through, we've completed 7 forest management plans totaling in approximately 2000 acres of land under management. We've also completed two grassland restoration plans with multiple landowners also on that waitlist so that we can get to them and develop these plans for them. We're defined geographically by the Western Highland Rim and Cumberland Plateau for this partnership for this grant. We're just looking to engage as many private landowners as possible in those two regions across the state.

MIKE BUTLER- TENNESSEE WILDLIFE FEDERATION

- We are also working on a project that we will be submitting to the NRCS around cover crop implementation and forest management in West Tennessee in partnership with UT extension and Agri Center. You'll be hearing more about that as it starts to come together here in the next week or so. I've been around for years, and I remember for a long time the concern was do we have

enough funding? Then we had other concerns, and the stars seem to be aligning for the next two or three years to do some really big stuff. I know that a lot of you have been doing big stuff, but we see even the kind of exponentially more opportunity moving forward.

GARRETT MORRIS- ASSISTANT STATE CONSERVATIONIST (PROGRAMS)

- The speakers today all have spoken from a technical and programmatic standpoint, and I just kind of wanted to stand on, even taking into consideration the position that I am in now, being the Assistant State Conservationist for Programs in the state of Tennessee, I think that it is important that we continue to echo and acknowledge NRCS as a technical agency. Both are important, the technical standpoint and the programmatic standpoint, and them feeding into each other continuously is what's going to keep us pushing towards success.
- I am thankful for the chance to meet and speak with all the partners today, and along with all the NRCS across the state, and thankful to all the members of the State Technical Committee as well.
- Our next meeting is scheduled for November 7, 2023. We'll be getting in to the first quarter and looking at some of the program matters and technical matters we need to address and looking to see what kind of successes we can get going in FY24.

Meeting Adjourned: 10:49 am

Meeting Minutes Prepared By: Hiliary Morrow, Local and Programmatic Support Services Contractor