

## **NRCS SC STATE TECHNICAL COMMITTEE MEETING MINUTES**

*October 29, 2015, 9:30 a.m.  
South Carolina Forestry Commission  
Columbia, SC*

**Present:** Ann English, (STC NRCS), Evelyn Whitesides (SRC, NRCS); Sabrenna Bryant (SC NRCS); Sylvia Rainford, Acting State PAS, SC NRCS; Kellee Melton (SC NRCS); Reginald Hall (SC NRCS), Eric Fleming (SC NRCS); Hezekiah Gibson (United Farmers, USA – Landowner); Frances Gibson (United Farmers, USA - Landowner); Yvonne Kling (ASWCD); Patricia Leach (Catawba Indian); Scott Hagins (DHEC); Jared Canty (Catawba Nation); Guy Sabin (SCFA); Deiam Ortiz (APHIS); Keith Baldwin (CFSA); Natalie Wendling (APHIS); Sierra Burrell (APHIS); Ellie Berstein (Coastal Cons League); James Kilgo (SCRNA); Phillip Elliott (FSA); Carolyn Hefner (SWCD); Marc Cribb (DNR); Chris Workman; Phil Bauer; Stan Polinsky; Joe Welch; Michael Hook (DNR); Dennis Mobley (SC NRCS); Patrice Moses (NRCS); Angela Snell (NRCS); Kamara Holmes (NRCS); Breck Carmichael (DNR); Drew Williams (DNR); Robert Chambers (NRCS); Walt McPhail; Rafael Mendez (NRCS); Kathy Hensley; Tawana Guinyard (APHIS); Herb Nicholson (SCFC); Tom Patton; Marie Stallworth, Gordon Mikell (NRCS), Dick Yetter (NRCS)

### **Opening remarks from Ann English, State Tech Committee Chair/SC NRCS - State**

- Welcomed all meeting attendees and thanked them for participating
- Thanked Forestry Commission for allowing NRCS to use meeting location
- Conducted roundtable introduction
- Your feedback is very important; ensures that we are providing the best technical support we can to everyone
- Will take all recommendations back and take a look at them all
- We will do as much as we can as long as it is within NRCS policy and regulation; if it is NRCS policy we can possibly work with National Headquarters to change, if it is within statute, then it is law and it cannot be changed very easily.
- Update
  - Flood event still ongoing
  - FSA has a grassland component to the Conservation Reserve Program that has just started
  - Avian Flu update to be given by Dr. Guinyard
  - Joe Welch will discuss Aquaponic and Hydroponic Agriculture System
  - Brent Carmichael will go over SC's Northern Bobwhite Conservation Initiative
- Additional questions will be taken at the end

### **Comments from Tom Patton, Deputy State Forester, SC Forestry Commission**

- Welcomed all to Forestry Commission
- Joaquin Flood Update
  - South Carolina Forestry Commission (SCFC) Response
  - Damage Assessment
  - Assistance

- SCFC Forest Management
  - Technical Assistance
  - Services
- CTA Agreement Update
  - Went into effect on October 1, 2014
  - Originally a 2-year agreement, but has been extended through September 30, 2017
  - Purpose is to provide reimbursement to SCFC for technical assistance in writing forest management plans and performing certification checks for EQIP contracts
  - Accomplishments so far: 10 certifications for 725 acres, 205 plan for 8,445 acres
  - Much of this work has been concentrated in Chesterfield and nearby counties, but the agreement can be used statewide.

**Comments from Kellee Melton, SC NRCS - Assistant State Conservationist for Programs:**

- NRCS Programs Update

FY15 Program Year-End Obligations

- Environment Quality Incentives Program  
Environmental Quality Incentives Program (EQIP) - \$13,052,451  
(Initial allocation was \$11,911,274)  
There were 562 contracts obligated totaling 54,359 acres  
StrikeForce- \$7,085,828 (total across all EQIP funding pools)
  - ▶ New/Beginning Farmer –\$616,337 (\$2,975,178 total across all funding pools)
  - ▶ Limited Resource Producer –\$77,457
  - ▶ Socially Disadvantaged Farmer –\$579,823 (\$1,578,780 total across all funding pools)
  - ▶ Organic (Certified and Transitioning) – \$113,253
  - ▶ Seasonal High Tunnel – \$271,689
  - ▶ Longleaf Initiative – \$1,030,857
  - ▶ On-Farm Energy – \$1,460,376
  - ▶ Animal Waste – \$3,367,488
  - ▶ Specialty Crops – \$212,443
  - ▶ Watershed Accounts for Crop, Pasture and Wildlife/Forestry Areas – \$3,502,033
  - ▶ National Water Quality Initiative (NWQI) –\$559,450
  - ▶ Planning –\$427,092 (this account is for Conservation Activity Plans (CAPs))
  - ▶ Sustainable Forestry Project - \$349,071
  - ▶ Indian Creek Project - \$191,894
  - ▶ CIG – \$293,188

- Conservation Stewardship Program (CStP) FY2015
  - Conservation Stewardship Program (CStP) - \$1,281,042
  - There were 163 contracts signed totaling \$6,405,210 for 5 years (\$1,281,042/year) on 100,329 acres.

- Conservation Stewardship Program (CStP) Renewals - \$1,909,935
  - There were 249 contracts from 2010 that were renewed for another 5 years on 174,835 acres.
  - Agricultural Conservation Easement Program (ACEP) - \$1,833,400
    - ❖ ALE – Enrolled 3 easements in Oconee, Beaufort and Orangeburg counties totaling \$519,450 and 760 Ac.
    - ❖ WRE – Enrolled 1 easement in Richland County totaling \$900,000 and 535 Ac.
- Restoration contracts on previously enrolled easements totaled \$577,750
- Regional Conservation Partnership Program (RCPP) – FY2015
    - Regional Conservation Partnership Program (RCPP) - \$0
      - ❖ There were no RCPP proposals funded at the state level.
      - ❖ There are currently 3 (2 national and 1 CCA) pre-proposals that have been invited back to submit full proposals by November 10<sup>th</sup>. All have been submitted by U.S. Endowment and list SC as the lead state.
  - FY16 Programs Announcement  
**Initial Allocations:**
    - EQIP - \$12,865,072
      - ❖ StrikeForce - \$2,063,645
      - ❖ NWQI - \$201,988
      - ❖ LLPI - \$1,110,181
      - ❖ Indian Creek - \$159,352
    - CStP - \$5,764,000 (for payments, renewals and new enrollments)
    - ACEP - \$2,279,476
      - ❖ ALE - \$1,000,000
      - ❖ WRE - \$1,279,476
    - WRP - \$972,000 (to cover restoration costs of prior year enrolled WRP easements)
  - Environmental Quality Incentives Program (EQIP)
    - Batching Period:  
November 20, 2015 (all funding pools)
    - NWQI – no change in watersheds:
      1. Big Swamp - Florence
      2. Polk Swamp - Dorchester
      3. Upper Little Saluda River - Saluda
      4. Chinquapin Creek – Aiken and Lexington
    - Requested additional EQIP funds for flood disaster recovery on agricultural land. If funding is approved, there will be a sign up announced specifically for the federally declared counties.
- Reminder: EQIP is a continuous sign up. Applications can be accepted at any time.*
- Conservation Stewardship Program (CStP)
    - General sign up will be announced at the national level.

- Changes expected in the CStP this fiscal year before the general sign up begins.
- There are approximately (96) 2011 contracts that will be renewed before December 31, 2015.
- Agricultural Conservation Easement Program (ACEP)
  - National sign up deadline is January 15, 2016; South Carolina will use this deadline
  - SC will use appraisals again this fiscal year to determine easements values for Wetland Reserve Easements (WRE).
- FY2016 Program Announcements

*Many new agreements were signed at the end of FY2015. Some of those include:*

- ❖ Black Family Land Trust – Easement Outreach
- ❖ University of South Carolina – Soil Health
- ❖ Center for Heirs Property Preservation – CStP Outreach and Technical Support
- ❖ Federation of Southern Cooperatives – High Tunnels
- ❖ SC Department of Natural Resources – Conservation Districts Division – Easement Monitoring
- ❖ SC Department of Natural Resources – Wildlife Division – Conservation Technical Assistance (Biologists)
- ❖ Clemson University – Edge of Field Monitoring
- ❖ State Veterinarian's Office – Biosecurity

**Question:** *What percentage of the 249 contracts from 2010 were renewed*

**Answer:** *About 10 or 12 not renewed*

**Question:** *Was I not approved due to domestic livestock?*

**Answer:** *Will discuss in detail after meeting with Kellee Melton*

Any additional questions or thoughts regarding programs can be directed to Kellee Melton, Assistant State Conservationist for Programs, [Kellee.melton@sc.usda.gov](mailto:Kellee.melton@sc.usda.gov).

### **Comments from Eric Fleming, SC NRCS – State Engineer**

- Provided National Weather Service Observation Precipitation map
- Discussed EWP fact sheet for South Carolina
- EWP - South Carolina - Emergency Watershed Protection (EWP) Program
  - The Emergency Watershed Protection Program (EWP) is a program administered through the USDA – Natural Resources Conservation Service to provide assistance to local sponsors (units of government) to restore impaired watershed(s) to a stable hydrologic function (only an engineer will understand this language) following a natural disaster. We certainly have impaired watersheds that needs to be repaired. NRCS would like to assist Lexington County to asses and repair sites that are

- determined to be program eligible if the county desires. We would like the opportunity to discuss the program with county representatives.
- EWP is used to protect the eligible sites from a subsequent natural occurrence of the same intensity or less to cause significant damage to property and/or threaten human life. The term “property” applies to significant infrastructures such as dwellings, office buildings, utilities, bridges, and roads. Land is not defined as property for the EWP Program.
  - Federal funds can provide up to 75 percent of the actual eligible construction costs of emergency recovery measures.
  - Cost share for EWP program measures is divided into two activities:
    - ❖ Construction Services (Financial Assistance – FA) and
    - ❖ Technical Services (Technical Assistance – TA)
  - Construction services are those items related to actual physical repair of the damaged site and include such items as mobilization/demobilization, materials, earthwork, and revegetation. The federal share is 75 percent and the sponsor share is 25 percent.
  - Depending on the contracting method used by the sponsors, the sponsors may elect to perform some of the construction services with their own labor, materials, and equipment. In general, this “in-kind” construction work may be used toward their share of the project construction services cost. NRCS and the sponsor must agree on the amount, method, etc., of “in-kind” construction services prior to commencement of the works of improvement. All contracting will be through the local sponsor.
  - Technical services are items such as surveys, design, geotechnical services, contracting, contract administration, and construction inspection. Under locally-led contracts, NRCS will reimburse the Sponsor for “in-kind” technical services costs subject to an agreed-to-amount. Permitting fees, legal and other expenses associated with land rights, and legal opinions of locally-led contracting activities do not qualify as in-kind technical services.
  - For a site to be eligible for EWP program assistance, all of the following questions must be answered YES:
    - Damage was the result of a natural disaster (e.g., damage to structures residential or commercial, infrastructure, etc.)?
    - Recovery measures would be for runoff retardation or soil erosion prevention (e.g., erosion damage to canal banks, roads, sediment blocking drainage, etc.; potential for increased erosion damages due to lack of groundcover)?
    - Threat to life and/or property?
    - Event caused a sudden impairment to the watershed?
    - For structural repairs, the site has not been repaired twice within the last ten years?
    - Economic, environmental, and social documentation adequate to warrant action?
    - Proposed action technically sound?

**Question:** *Is there a timeline on submitting for assistance?*

**Answer:** Yes, you have 60 days from the date of the event to request assistance.

**Question:** Once the request is made up the ladder, what is the process?

**Answer:** EWP is a program that is not funded through normal congressional appropriations. EWP is an emergency program that is only funded through supplemental appropriations bills through Congress. The bills are event specific; agency makes a request; hopefully supplemental appropriations passes through Congress; locally: hope to receive around \$2M or more; once money received in our account; will enter into an cooperative agreements with private sponsors; written agreement; process to take 1-2 weeks; final damage assessment reports for eligible sites; assemble list of priorities for funding levels we have available; repair & recovery work will then commence.

**Question:** How can the partners move this along to ensure we still get what is needed or try to get what you requested?

**Answer:** Districts can have a good understanding of what the process is.

Also, the link to NRCS's EWP information

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/sc/programs/financial/ewp/>

Any additional questions or thoughts regarding EWP can be directed to Eric Fleming, State Engineer, [eric.fleming@sc.usda.gov](mailto:eric.fleming@sc.usda.gov) or (803) 765-5683 cell: (803) 360-2694 or Stephen Henry, [stephen.henry@sc.usda.gov](mailto:stephen.henry@sc.usda.gov) (803) 765-5350

### **Comments from Evelyn Whitesides, NRCS, State Resource Conservationist**

- SC Conservation Innovation Grant (CIG)
  - CIG is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and new technologies while leveraging Federal investment in environmental enhancement and protection, in conjunction with agricultural production.
  - Under CIG, EQIP funds are used to award competitive grants to:
    - State or local unit of government
    - Non-governmental organizations
    - Federally-recognized Indian tribes
    - Private Business
    - Individuals
- National Component
  - Applications are accepted from all 50 States, the Caribbean Area (Puerto Rico and the Virgin Islands), and the Pacific Basin Area (Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands).

#### National Component CIG Topics:

- Drought

- Energy
- Forestry
- Grazing
- Green House Gas/Climate Change
- Market Based/Economics
- Outreach
- Partnerships
- Soil
- Plants
  - ❖ (includes Invasive Species)
- Soil
- Water Quality
  - ❖ Nutrients, Pesticides, Animal Waste, Herbicides
- Water Quantity
  - ❖ Irrigation, Drainage Water Management
- Wildlife

#### National Component

- Maximum award amount not to exceed \$1 million
- Set aside 10% applications from beginning farmers or ranchers, socially disadvantaged farmers or ranchers, or community-based organizations consisting of or representing these entities.
- Two-phased proposal process: Usually announced in Fall
- Projects 1-3 years in duration
- EQIP eligibility component
- Selected applicants may receive CIG grants of up to 50 percent of the total project cost. Applicants must provide non-Federal funding (matching funds) for at least 50 percent of the project cost.
  - Match can be any ratio combination of cash and/or in-kind*
- CIG enables NRCS to work with other public and private entities to accelerate technology transfer and adoption of promising technologies and approaches to address some of the Nation's most pressing natural resource concerns.
- CIG will benefit agricultural producers by providing more options for environmental enhancement and compliance with Federal, State, and local regulations.

#### State Component

- The intent of the State Component is to provide flexibility to NRCS State Conservationists to target CIG funds to individual producers and smaller organizations that may possess promising innovations, but may not compete well on the larger scale of the national grants competition.

- State Conservationists will determine the funding level for state competitions, with individual grants not to exceed \$75,000.

#### 2015 Funded State Projects

- University of SC \$74,516-Demonstrating soil health conservation practices to reduce aflatoxins
- Clemson University -\$74,998 Using Real time on farm weather information site specific soil and crop info to make better irrigation decisions
- Longleaf Alliance \$69,192- Transfer the knowledge of burning
- Dillon Soil and Water Conservation District \$74,481 Soil Health tillage and cover crop demonstrations

#### Sidebar: Non-CIG State Projects

- United Farmers USA
  - ❖ Silvopasture/Farm bill Programs Outreach
- Carolina Farm Stewardship Association
  - ❖ Soil Health on Organic Operations
- Clemson University
  - ❖ Using listening devices to monitor avian communities on private lands
- SC Department of Natural Resources
  - ❖ Demonstrate site preparation and the establishment of native grasses
- ***Question for State Technical Committee***
  - ❖ Do we want to offer a SC component of CIG?
  - ❖ What type of proposal topics or areas should we focus?
    - Broad
    - Narrow/Specific
  - and/or*
    - Should certain topics rank higher?

#### Possible SC Proposal Topics

- Water Resources
- Soil Resources
- Air Quality
- Grazing Land
- Forest Health
- Wildlife Habitat
- Organics
- On-farm Energy Efficiency
- Nutrient Management
- Water Management
- Outreach
- Soil Health

Additional Information can be found at: <http://www.nrcs.usda.gov/technical/cig/index.html>

### CRP Grassland Practices

- CP87 Permanent Introduced Grasses and Legumes
  - CP88 Permanent Native Grasses and Legumes
  - CP42 Pollinator Habitat associated with CP87 and/or CP88
- State Technical Committee tasked with establishing the State Priority Grassland Zone:
    1. Must be Whole Counties
    2. Objective based on: Wildlife protection, water quality, development pressure
    3. Not exceed 25 % of NASS hay and pasture, CRP acresAugust 25, 2015 – Anderson, Greenville, Spartanburg, Laurens and Horry counties

- Ranking Points Assigned

<u>Practice 1/</u>	<u>Assigned Point Score</u>
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#### CP87 Permanent Introduced Grasses and Legumes (NOT Suitable for Wildlife Planning)

- |   |    |
|---|----|
| ▪ Monoculture stand.  | 0  |
| ▪ Existing stand of 2 or more species or for provisional offers<br>Planting new stand of 2 to 3 species of an introduced grass species.   | 5  |
| ▪ Existing stand or for provisional offers planting mixture (minimum<br>of 4 species) of at least 3 introduced grasses and at least 1 forb or<br>Legume species best suited for wildlife in the area. | 10 |

#### CP88 Permanent Native Grasses and Legumes (Suitable for Wildlife Plan)

- |   |    |
|---|----|
| ▪ Monoculture stand.  | 5  |
| ▪ Existing stand (minimum of 2 species) or for provisional<br>offers planting new mixed stand (minimum of 3 species)<br>of at least 2 native grass species. | 10 |
| ▪ Existing stand or for provisional offers planting mixed<br>stand (minimum of 5 species) of at least 3 native grasses.                                     | 20 |

#### Wildlife Focus Plan

- Producer agrees to work with NRCS to develop a wildlife focused plan
- Could include more restrictive mowing, grazing or harvesting for seed provisions depending upon the species focus as determined by NRCS. These parameters determined with your help.
- NRCS solicited input from State Technical Committee members:
  - SC DNR
  - USFWS
  - NWTF

- TNC
- USFS
- Clemson
- State Technical Committee suggestions:
  - Rotational grazing
  - Minimum acreage (20%) of Native species
  - Adjusting no action dates (April 1 – Aug 1)
  - Minimum mowing/grazing height (12")
  - Harvest pattern to maintain escape cover, mid- field outward, or from one end to the other
  - Use of a flush bar on mower to flush out wildlife
  - Only mow in daylight hours
- Highlighted draft - CRP Grasslands – SC Information sheet – final to be published.

*Question: Are there any Prescribed Burning classes or updates being offered?*

*Answer: Check with Forestry Commission, there are periodic classes available*

*Question to the Committee: Do we want to offer SC component of CIG this year?*

*Answer: Recommend keeping CIG grant*

*Question to the Committee: How much do we want to offer?*

*Answer: Would like to leave it broad*

Any additional questions or thoughts can be directed to Evelyn Whitesides,  
[evelyn.whitesides@sc.usda.gov](mailto:evelyn.whitesides@sc.usda.gov) or (803) 765-5685

### **Comments from Phillip Elliott, Agriculture Program Specialist, USDA-FSA**

- Emergency Conservation Program (ECP) CRP Grasslands
  - On October 2, 2015 and following, South Carolina was ravaged by flood waters resulting from a “1000-year” rain event.
  - ECP provides emergency funding and technical assistance for farmers and ranchers:
    - To rehabilitate farmland damaged by natural disasters
    - For carrying out emergency water conservation measures during periods of severe drought.
  - ECP participants receive cost-share assistance of up to 75% of the cost to implement approved practice
    - 75% of actual cost not to exceed 75% of established practice rate
    - Limited Resource Producers can receive up to 90% cost share (CCC-860)
  - Payment limitation of \$200,000 per person per disaster
  - Signup Process for ECP Flood:
  - ECP Signup: October 15 - December 14

- General Eligibility
  - AD-1026
  - CCC-902 (Direct Attribution applies)
  - AGI does not apply
  - CCC-860 if applying under Limited Resource provisions
- Applicant must sign the FSA-848
- An onsite inspections and environmental evaluation must be completed for each application by either FSA or NRCS

Practices:

- EC1 – Debris Removal
- EC2 – Land Leveling/Grading
- EC3 – Repair/Replace Damaged Fencing
- EC4 – Restore Damaged Conservation Structures (Dams, Grass Waterway, Drainage Systems...) (Note: NRCS provides technical assistance for EC-4)
- Conservation Reserve Program (CRP)
  - CRP Grasslands
    - The Conservation Reserve Program is 30 years old!!!
    - In 1986, SC enrolled 18,390 acres into CRP
    - Highest enrollment in 1996 (267,738 acres)
    - Began FY2015 with 95,000 acres enrolled (86% planted to trees)
    - New General Signup begins on December 1 and runs through February 26.

General Provisions

- No cropping history requirements
- Only land with existing grass cover is eligible
- Haying and/or grazing or harvesting for seed production is allowed subject to the CPO
- Annual rental payments are based on grazing rental values (\$15-\$30 in SC)

Provisional Offers

- Provisional offers may be submitted on acreage where the current cover is not grass –
- the participant must agree to establish an approved grass cover at their own expense
- the participant must meet all other eligibility requirements
- the grass cover must be established in one year

Grassland Practices

- CP87 Permanent Introduced Grasses and Legumes
- CP88 Permanent Native Grasses and Legumes
- CP42 Pollinator Habitat associated with CP87 and/or CP88

CRP Grasslands Practices CP87 & CP88

Grassland practices will allow for:

- Common grazing practices including maintenance and necessary cultural practices (Except CP42 acreage)
- Haying, mowing, or harvesting for seed production, subject to appropriate restrictions during the nesting season (Except CP42 acreage)

- Grazing-related activities, such as fencing and livestock watering (Except CP42 acreage)

CP42 – Pollinator Habitat

- Is not a stand-alone practice in most cases
- Will be combined with CP87 or CP88
- Mid-contract management will be required for CP42 portion of contract acreage

CRP Grassland National Ranking Factors

- F1 Current and future use (20 points)
- F2 Beginning Farmer/Rancher, Veteran or Underserved Producer (20 points)
- F3 Maximizing grassland preservation (20 points)
- F4 Vegetative cover (20 points)
- F5 Environmental factors (20 points)
- F6 Pollinator Habitat (20 points)

F5 – Environmental Factors (0-20 points)

- F5A Location is within CRP State Wildlife Priority Zones (0 or 5)
- F5B Offer is within the State Priority Grassland Zone (0 or 5)
- F5C producer agrees to a Wildlife Focus Plan within the CRP Grasslands CPO (0 or 10)

F5C – Wildlife Focus Plan – 10 Points

- Producer agrees to work with NRCS to develop a wildlife-focused plan as a part of the CRP Grasslands Conservation plan
- Could include more restrictive mowing, grazing or harvesting for seed provisions depending upon the species focus as determined by NRCS  
***CRP Grassland Offers are being accepted now!!***

***Question:*** *What is the timeline to sign up for ECP?*

***Answer:*** *The application timeline is October 15 – December 14, 2015*

***Question:*** *Where does the funding come from? Is it pulled from another program?*

***Answer:*** *It is National funding, currently there are no funding for our particular disaster event, we are hoping for supplemental appropriations from Congress. It is the intent of the program to fund every eligible application. We cannot guarantee funding. Have requested initially for \$10 million.*

***Question:*** *Where are you in the process of asking for appropriations?*

***Answer:*** *The process is ongoing; our Washington office continues to try to get appropriations.*

***Question:*** *The \$10 million is not agency money? It would have to come from a supplemental?*

***Answer:*** *There is some funds for this particular program through the Stafford Act & there are also additional funds that have to be appropriated for specific disaster event for supplemental appropriations funding.*

**Question:** *Is there a supplemental bill being worked on right now?*

**Answer:** *Would have to look into that.*

**Question:** *Is land with existing grass eligible? You state you will not pay for grassland planting?*

**Answer:** *“Provisional Offer” – If you have open cropland that you want to plant into grass you offer it for CRP and we will accept offer based on what you intend to plant & once planted and established we will approve offer and you can begin your contract.*

**Question:** *Is the plan written after the provisional offer is accepted?*

**Answer:** *We will take the offers, we will grant the offers, we will accept some if the offers & once accepted and the participant agrees to accept provisions it is then sent for a plan & then they can start.*

Address questions or comments to Phillip Elliott, Agriculture Program Specialist, USDA-FSA at [phillip.elliott@usda.gov](mailto:phillip.elliott@usda.gov)

#### **Comments from Gordon Mikell, Conservation Agronomist**

- Introduced some new information on Soil Health in the Coastal plain that we have gathered from a few CIG's (*slides available upon request*)
- Highlighted a report from a SH CIG with Clemson that indicated that covers have had an impact on reducing compaction.

Address questions or comments to Gordon Mikell, [Gordon.mikell@sc.usda.gov](mailto:Gordon.mikell@sc.usda.gov)

#### **Comments from Dr. Towana Guinyard, Veterinary Medical Officer, USDA-APHIS, SC**

Update on Highly Pathogenic Avian Influenza (HPAI)

- There are many strains of avian influenza (AI) virus that can cause varying degrees of clinical illness in poultry. AI viruses can infect chickens, turkeys, pheasants, quail, ducks, geese and guinea fowl, as well as a wide variety of other birds. Migratory waterfowl have proved to be a natural reservoir for the virus. Dabbling ducks have often been involved in the 2014-15 outbreak, i.e. mallards, shovelers, pintail, as well as geese.
- AI viruses can be classified as highly pathogenic (HPAI) or low pathogenic (LPAI) strains based on the severity of the illness they cause. HPAI is an extremely infectious and fatal form of the disease that, once established, can spread rapidly from flock to flock

and has also been known to affect humans. LPAI typically causes only minor illness, and sometimes manifests no clinical signs. However, some LPAI virus strains are capable of mutating under field conditions into HPAI viruses. During the 2014-15 outbreak, the disease issues were caused by two strains— H5N5 and H5N2. The H and N are surface proteins that bind with cell membranes in the body to create the environment for infection. The H5N5 was an Asian strain, the H5N2 was a strain that indicated there was a mixing of Asian strain and the North American strain. There are 4 flyways in the U.S.— Pacific, Central, Mississippi and Atlantic; no infections have occurred in the Atlantic flyway to date. A summary of activities during 2014-15 include the following:

- First detection was Dec. 14, 2014 in Washington State
- Last detection was in June 17, 2015 in Iowa
- 219 detections of disease occurred
- Minnesota had the most detections at 101
- Iowa had the next highest number of detections at 75
- 700 USDA employees were deployed to the response
  
- 3,000 contractors were deployed to the response
- 50 million birds were depopulated, including 10% of the egg-laying hens in the U.S.
- Use of the Incident Command System (ICS)---incident management teams were employed to manage the outbreak
- \$950 million has been spent to date

Aside from the cost of the response, economic costs include the following:

- \$1.6 billion in direct losses (\$1.06 billion for egg-laying hens and \$530 million for turkeys)
- \$3.3 billion in economy-wide impacts for things such as feed, trucking and the cost of people leaving a disease-affected area to look for work elsewhere
- Trade impact—17 trading partners have suspended trade of all U.S. poultry and poultry products, for instance the “BIG Three” countries are China with a \$391 million losses; Russia with \$153 million losses and South Korea with losses of \$123 million
- An important note: Once a particular market is lost, it is very hard to get that market back because when you are unable to provide the product, others will see that as an opportunity to take that market

How will we plan for the fall of 2015? The USDA and our state and industry partners participated in workshops on a review of how to respond in a worst case scenario. That scenario involved 500 cases of AI in commercial operations in the top 20 poultry-producing states. To that end, several things were done to facilitate a stronger response:

- A national survey of federal, state and industry was conducted of what resources could be brought to bear to respond to the anticipated outbreak. That survey included items such as
  1. laboratory surge capacity (how to manage a tremendous increase in the number of samples to be tested)
  2. Equipment availability such as foamers
  3. Location of landfill facilities
  4. Human resources available to respond to the outbreak
  5. Increased emphasis on biosecurity—all the measures you need to do to decrease spread of the disease , i.e. footbaths, not sharing equipment among barns or among farms
- Training of industry sectors
- Outreach to producers and public
- Federal hiring of human resources---more than federal personnel are being hired to facilitate response
- Moving to a target of depopulation within 24 hours—this will have an impact of decreasing the virus in the environment and also preventing the lateral spread of the virus
- Cleaning and disinfection will include dry cleaning followed by closing the house(s) and turning up the heat for 7 days, three of which will be consecutive.

So, what is the impact on the SC economy? The South Carolina poultry industry represents 40% of all agriculture in the state and is 80% of animal agriculture. Sales represent \$1.5 billion per year.

Rankings:

**Broiler Production\*\***

GA is #1 in the nation

SC is #13 in the nation

**Egg Production**

Iowa is #1 in the nation

SC is #17 in the nation

**Turkey Production**

MN is #1 in the nation

SC is #8 in the nation

**NOTE:** The production statistics were taken from the SC Poultry Federation website and the U.S. Poultry and Egg Association

Any additional questions or thoughts regarding programs can be directed to Dr. Delorias M. Lenard, Assistant Director – SC & USVI, [Delorias.m.lenard@aphis.usda.gov](mailto:Delorias.m.lenard@aphis.usda.gov)

### **Comments from Kenny Mullis, Chairman, Richland SWCD**

#### South Carolina (SC) Grazing Land Coalition (GLC)

- Purpose of SC GLC is to promote the health and sustainability of SC Grazing Lands through voluntary actions, respect for private property rights and education on the values and multiple benefits of well-managed grazing lands and grasslands.
- Structure – voting members – organizations and individuals
  - ▶ Organizational members
  - ▶ Ex-office members
- Need for education throughout SC
- Programs
  - ▶ Pasture Field Day in Richland/Blythewood
  - ▶ Rainfall simulator
  - ▶ DNR, SC GLC, NRCS Agreement to provide education and outreach demos in SC

### **Comments from James Kilgo, SC Rural Water Association/SC Forestry Association/SC Forestry Commission**

Request to the USDA NRCS State Technical Committee to modify EQIP evaluation criteria to support Collaborative Forestry & Drinking Water Resource Projects under RCPP.

- Request the State Technical Committee consider changes to the evaluation criteria for EQIP to support collaborative forestry and drinking water resource projects under RCPP. Changes should support connections between South Carolina forest and drinking water resources. Work completed during the past three years in South Carolina by the Southeastern Partnership illustrates the need for increased support for forestry and drinking water resource projects.
- USDA Forest Service and the U.S Endowment for Forestry and Communities currently collaborates with five states—Arkansas, Georgia, Kentucky, South Carolina and Texas—on an initiative known as, the Southeastern Partnership for Forest and Water. In 2012, the USDA Forest Services, U.S Endowment, and the South Carolina Rural Water Association conducted a forum in Greenville. Stakeholders from around the state participated including water utilities, forestry sectors, state and local agencies, and conservation groups. This forum generated information regarding the important connections between drinking water resources and forested land protection as well as creative financing tools for drinking water protection (commonly referred to as source water protection) in forested watersheds. The Greenville forum served as a template for the four other states. The goals are the same for each state. That is, use the template created at the Greenville meeting to generate excitement and momentum with specific objectives, like facilitating new conservation among forestry, drinking water and conservation sectors regarding ways to collaborate on watershed protection projects.

- A second South Carolina forum, scheduled for January 2016, will bring together senior-level forestry, drinking water, and conservation leaders to identify priority watersheds and discuss possible funding mechanisms. After this forum, we will be positioned to seek funding for on-the-ground watershed protection projects in the state's forested drinking water watershed.
- Goals of the Southeastern Partnership:
  - ❖ Maintain and/or expand healthy forests in drinking water watersheds
  - ❖ Maintain and/or improve water quality and quantity through working forest retention
  - ❖ Develop relationships among water utilities, forestry sector, state and local agencies, Rural Water Associations, and conservation groups
  - ❖ Identify watershed with high potential for viable forest conservation, management and restoration
  - ❖ Develop pilot projects to implement creative watershed protection plans that demonstrate the interdependence of healthy forests and drinking water resources...i.e. Payment for water services

#### Connections between Forests and Drinking Water Resources & Opportunities for Funding

- There are a number of important links connecting the forestry sector to drinking water resources. Some important fact to consider:
  - ❖ 67% of fresh water in the US comes from forested watershed
  - ❖ Forests act as filters that intercept and absorb sediments, storing and transforming excess nutrients and pollutants from runoff. They can reduce nitrogen concentration in water runoff and floodwater by up to 90%, and can reduce phosphorous by as much as 50%
  - ❖ According to the USDA Forest Service Southern Forest Futures Project (2013), forestry in the South will be defined by population growth, timber markets, and invasive species. Urbanization will gradually decrease water availability and degrade water quality
  - ❖ An EPA study reveals that for every \$1 spent on watershed protection saves an average of \$27 on drinking water treatment costs
  - ❖ A 2002 study by the Trust for Public Land and the American Water Works Association identified that for every 10% increase in forest cover in the source watershed, treatment and chemical costs decreased by approximately 20%
  - ❖ WE recognized that NRCS's RCPP and EQIP programs offer opportunities to engage forest landowners and drinking water utilities, support collaborative watershed protection projects, and provide incentives to create long-term, sustainable local funding sources to ensure ongoing watershed protection.
- South Carolina Priority Forest and Drinking Water Watershed
  - ❖ South Carolina Hydrologic Unit Code (HUC) 12 Watersheds – merged for 15 mile upstream denotation
  - ❖ Wildlife Urban Interface (WUI) – South Carolina Forestry Commission
  - ❖ Conserve Working Forests – inputs from Development Level, Timber Supply, Distance to PORT, Priority to Public Lands, Site Productivity, Economically Distressed Areas, Decrease in Forestation, Longleaf Range and T&E Species

- ❖ South Carolina Public Surface Water Intakes
- Source Water/Watershed Protection Projects
  - Two projects focusing on conservation practices for forestry and drinking water resource
  - 1. Conservation Trust for North Carolina: Upper Neuse Clean Water Initiative
    - Estimated 600,000 customers use water from Upper Neuse River Basin, North Carolina
    - Healthy forests identified as high priority lands to protect
    - Watershed Protection Fee (2012) - 1% per 100 gallon fee on all municipal water users, which cost the average household about .40 cents per month and generate around \$1.5 million per year for land acquisition and other water quality protection
  - 2. Central Arkansas Water; Watershed Protection Project
    - Estimated 400,000 customers use drinking water resources
    - Established partnership with local, state, federal and corporate partners
    - Preserving forested land in this plan is an integral component for success
    - Payment for Watershed Services or Beneficiary Pay Fee – 45 cents per month per household generates about \$1 million annually
- Request consideration for the following:
  - ❖ Add evaluation criteria and/or questions to the EQIP guidance, giving priority to proposals intended to benefit both forest lands and drinking water resource.
    - ✓ When making decisions on project proposals, incorporate aspects of our (i.e. forestry and drinking water) GIS work into the existing GIS-based decision analysis tools
    - ✓ Consult with SC Rural Water Association, SC Forestry Commission, and SC Forestry Association when making funding and program guidance decisions, ensuring funded projects maximize the relationship between forest and drinking water resources
    - ✓ Add a representative to the STC and evaluation committee(s) from the Southeastern Partnership for Forest & Water

*Question: To give consideration to add a ranking question to EQIP for 2016 that would allow some point value if your application was within colored areas described on map (was given as a handout)*

### **Comments from Brent Carmichael, SC Department of Natural Resources**

- SC Northern Bobwhite Conservation Initiative (NBCI)
  - ❖ 25 States have united for bobwhites: Midwest, Southeast, Northeast & many others; 2011 plan revised 25 states active participants
  - ❖ Backbone came from series of 23 workshops
  - ❖ SC is contributing to national plan by trying to achieve certain habitat goals in SC; we have state-level plan now called South Carolina Wildlife Initiative
  - ❖ SC Quail Council formed – 40 personnel, state, federal, private landowners etc.
  - ❖ Role of the SC Quail Council:

- Provide advocacy for quail/grassland habitat restoration
  - Coordination of agency and organization efforts
  - Increase technical and financial assistance to incentivize quail/grassland habitat restoration
  - Support federal policy for strong Farm Bill conservation programs
  - Coordinate training/cross-training opportunities
  - Promote the plan through outreach- newsletters, brochures, social media
  - Identify constituents/landowners/lands suitable for quail/grassland habitat focus areas
  - Coordinate monitoring and research efforts
  - Political support for additional state resources for implementation
- ❖ 4 focal areas: Indian Creek Restoration – Newberry County; Hampton County/Allendale County; Calhoun, Orangeburg & Clarendon Counties; Chesterfield, Darlington, Lee Counties
- *Request a little tweaking to the EQIP ranking for cropland and forest wildlife for all watersheds. Application must contain practices and support for wildlife quail and grassland birds habitat lands*

#### **Comments from Joe Welch, Landowner**

- Goal
  - Basic understanding of a re-circulating system
  - Aquaponics Vs Hydroponic
  - System capabilities (what grows well, what doesn't)
  - Advantages and disadvantages of recirculating systems
  - Why the NRCS should be interested, and how they can help
- Basics of a Recirculating System
  - Plants are grown with a nutrient-rich solution rather than soil
  - Root systems are supported by an inert medium, such as expanded clay, perlite, rock wool, etc.
  - Most are closed loop, relatively low maintenance, and usually climate-controlled
  - Easily created, commercially available, growing support network
- Six Types of Hydroponic Systems
  - Wick
  - Ebb & Flow
  - NFT
  - Water Culture
  - Drip
  - Aeroponic
- Hydroponics Operations
  - All systems operate on the same principles
  - Nutrient-rich solution and tank
  - Oxygenation (Aeration Zone or D/O)

- Grow medium for plant anchorage
- Light for photosynthesis
- What about Aquaponics?
  - System basics remain the same
  - Nutrients provided by effluent (Koi/Tilapia/Prawns)
  - Essentially a micro-ecosystem
  - Can sustain itself without extra fertilizers if properly operated
  - Allows for meat production from the same system
- What Can I Grow?
  - Most leafy green vegetables can be grown hydroponically
  - Green beans, most peppers
  - Tomatoes, tomatoes, tomatoes
  - Lettuces do exceptionally well
  - Herbs and ornamentals also grow well
  - Root vegetables and vinyl plants can be grown, but require special attention
- What Doesn't Grow As Well?
  - Most squash varieties
  - Zucchini
  - Melon
  - Corn
  - Potatoes
  - Carrots
  - \*\*\*\*space, anchorage, other support systems present the challenge
- Hydroponic Advantages
  - Estimated 30% increase in yield per plant
  - Plants reach maturity 25% faster
  - System can be built to fit the site (urban farming)
  - Systems easily expanded
  - Climate-controlled systems can produce all year
  - New crops can be place quickly (manage failure)
  - Little experience required
- Hydroponic Disadvantages
  - System must be monitored
  - Power loss can be catastrophic
  - Electricity consumption
  - Initial cost can be high
  - Plants can die very quickly if the solution stops moving
- Why Does it Matter
  - Water conservation
  - Fewer pesticides and runoff
  - Chemical use is maximized (fertilizers)
  - Less food miles, lower emissions
  - Soil conservation, reduced erosion
  - Frees up land for other uses, can reduce the need to create more farmland
  - Allows farmers without arable land to be producers
  - Less chance of product loss from environment

- How Can You Help
  - Fund education about hydroponics for the general public
  - Consider providing financial assistance to hydroponic producers through cost share etc.
  - Present hydroponics as an alternative to conventional farming for potential producers
  - Provide education, support, and technical expertise for urban producers
- We are facing a potential food crisis
- We are running out of arable land
- Agricultural runoff is affecting ecosystems
- Resource conservation will only become more important
- Hydroponics will never replace conventional agriculture, but can be part of the solution.

*Address questions or comments to Joe Welch, Producer at [rooster1554@gmail.com](mailto:rooster1554@gmail.com)*

**Closing Comments from Ann English, State Conservationist:**

- Full agenda; lots of recommendations that resulted from our discussion during the meeting
- ***Question to the Committee:** Do we want to offer SC component of CIG this year?*
- ***Recommendation:** Recommend keeping CIG grant*
- ***Question to the Committee:** How much do we want to offer?*
- ***Recommendation:** Would like to leave it broad*
- Thanked all participants for their participation and recommendations; will ensure that we have all the necessary input to make good decisions.
- Thanked SC Forestry Commission for use of the facility and also thanked all for taking time out of your schedules to be here.
- Lots of information covered – feel free to contact NRCS with any questions you may have via phone or email.
- Thanked all partners, speakers and everyone for attending.
- Have great week!

The meeting was adjourned at 12:10 p.m.

The next SC State Technical Committee meeting date, time and location to be determined.