Agricultural Development and Farmland Preservation
Sentinel Landscape Meeting
Meeting Minutes

March 10, 2022

I. Call to order

David Smith called to order the regular meeting of the Sentinel Landscape Committee at 2:30 on March 10th in the Hall of Fame Room of the North Carolina Department of Agriculture and Consumer Service's Downtown Raleigh Building.

II. Roll call

Veronica Jamison conducted a roll call. The following committee members were present: David Smith (NC Department of Agriculture and Consumer Services), Rick Long (NC Department of Military and Veterans Affairs), Shannon Deaton (NC Wildlife Resources Commission), Dr. Myron Floyd (NCSU College of Natural Resources), Will Summer (NC Department of Natural and Cultural resources), Steve Woodson (Sentinel Landscape Partnership Liaison). Others present were Evan Davis, Laura Brookshire, Allison Rodriguez, Sabrina Shaffer, Jonathan Lanier, Dewitt Hardee, Scott Shoulars, Dr. Richard Reich, Rodney Woolard, Jeffrey Darnell, Mary Lou Addor, and Bill Ross.

III. Approval of minutes from last meeting

Veronica Jamison presented the minutes from the September 2, 2021 meeting. Dr. Myron Floyd moved to approve the minutes, and Will Summer seconded the motion. The minutes were approved unanimously.

IV. NC Department of Agriculture and Consumer Services Report – Evan Davis

a) Evan Davis reviewed the perpetual agricultural conversation easement closings in the Eastern NC Sentinel Landscape area since September 1, 2021. Seven easements were recorded with Working Lands Trust totaling 6,081.35 acres. The easements are in Pamlico, Washington, and Tyrrell Counties. The 6 easements recorded in Tyrrell and Washington Counties were in partnership with the US Air Force-Seymour Johnson Air Force Base. The easement in Pamlico County was in partnership with the US Navy/MCIEAST.

b) NCDA&CS is currently under contract with Working Lands Trust to record easements on three farms in partnership with the US Air Force. These easements will be in Hyde and Washington Counties. NCD&CS is under contract with

Working Lands Trust to record an easement in partnership with MCIEAST. All of the easements will be perpetual and will total approximately 1,771 acres.

c) Since 2016, NCDA&CS has placed 9,477.44 acres of farmland under easement with military partnership. Fifteen easements totaling 8,541.22 acres in Bertie, Hyde, Tyrrell, and Washington Counties have been in partnership with the US Air Force. One easement of 936.21 acres in Pamlico County has been in partnership with MCIEAST.

d) The MOU with the NC Military Affairs Commission (NC MAC) continues. NCDA&CS has expended $92,299.02 of the $300,000 award on outreach; NCSU has expended $75,427.08 of the $160,000 award; and the NC Foundation for Soil and Water Conservation has expended $78,665.85 of the $140,000 award.

e) David Smith spoke that Laura Brookshire had briefly left Farmland Preservation last year to go to the Pesticides Division. She is now back as the Assistant Director to Farmland Preservation.

f) Jonathan Lanier spoke on the USDA differed tax issue with present use values and conservation easements. Easement holders could potentially be required to back pay three years of differed taxes to the county. Issue came to the forefront because of language in the title policy. NCDA&CS working toward a legislative fix. Will Summer said he supports this.

V. NC Department of Military and Veterans Affairs Report – Rick Long

a) Rick Long updated on the ongoing training at Seymour Johnson and the hardship they are having with the five lagoons at the end of the runway with the AFB Lagoons/Bird Bash. Migratory birds are causing problems. They have reached out to possibly doing a study with NC State to develop something to help move these birds somewhere else.

b) Working with Camp Butner and MOTSU. Marine Corp Installation East future engagement with MCIE, MCASCP, MCBCL, MCASNR, & FRC East. SERPASS May 2nd -May 4th Seymour Johnson AFB. He also spoke on Fort Bragg and upcoming steps with NCDOT to try again to get funding to fix road conditions. He spoke on the North Carolina National Guard on the Camp Butner Project to get it added to the Sentinel Landscape area. He spoke on the Military buffer problems. He spoke on the Coast Guard and the new structure at Fort Macon.

VI. NC Department of Natural and Cultural Resources – Will Summer

a) The North Carolina Land and Water Fund board met in December and awarded funds to over $60 million in projects for our 2021 grant cycle, including 16 projects in the ENCSL counties totaling $20.4 million and 19,712 acres.

b) In February, we received 195 applications requesting over $180 million. This included 24 requests in the ENCSL counties totaling $19.8 million and 10,525 acres. These figures are just requests at this point and will be considered for funding by our board in September.

VII. NC Wildlife Resources Commission Report – Shannon Deaton

a) The Recovery and Sustainment Program (RASP) continues to work towards our habitat restoration goals and since September 2021 we have completed approximately 200 acres of site prep burning and approximately 1200 acres of longleaf pine and native understory plantings. Additionally, we have completed nearly 4 miles of timber harvests and road upgrades.

b) NCWRC continues to work on land conservation opportunities in the NCSL with the newly expanded Wildlife Conservation Lands Program to help landowners receive property tax benefits for conservation on their lands. From September through February 2022, we have added 4 new WCLP agreements in the Sentinel Landscape focal area. These agreements are in addition to 5 other private properties (2 in Pender & 3 in Moore) that were previously enrolled into this program within the NCSL. We continue to look for ways to engage these landowners so we can share program details with them.

c) As always, staff are working through the Green Growth Toolbox (GGT) to support communities in the NCSL with various planning efforts.

- **Virtual GGT opportunities** – Completing a 6 webinar series in March 2022 that trains land use and transportation planners on how to use the GGT and conservation mapping data in land use development planning.
    - Greenville and Spring Lake have requested assistance recently.
    - Preparing to meet with Hoke County and new planning director in coordination with the Fort Bragg Regional Land Use Advisory Commission.
- **Moore & Richmond County** – Recently worked with partners to secure a Landscape Restoration Collaborative grant to restore fire-managed pine habitat from Uwharries to the Sandhills on private and USFS land in Eastern Moore, Northwest Richmond, and Montgomery County. Funds will be used to increase the amount of prescribed burning possible in the region to restore fire-managed pine habitat with the goal of restoring longleaf-pine associated species to the Uwharries.

d) As previously mentioned, the Commission and The Nature Conservancy have partnered on an Emergency Coastal Resilience Fund grant from the National Fish and Wildlife Foundation to complete 7,500 acres of hydrologic restoration on Angola Bay Game Land in Pender County. This project will enhance pocosin wetland habitat and provide important community flood resilience benefits to downstream communities (Burgaw, Castle Hayne, and Wilmington).

- Nine months of baseline hydrological data has been collected toward establishing seasonal water table fluctuations and flow patterns within the project area.
- completed field surveying, generated a drainage flow model and produced concept plans.
- Identified any road raising needs to accommodate site hydration while preserving access opportunities.
- Tentative water control structure locations and types have been identified as well, with structure design underway.
- Approximately 1,200 acres of the forest cover type within the restoration unit are managed pine stands. They have been deemed to be not manageable under the hydrology restoration scenario, so commercial harvest of those stands has been initiated.

e) NCWRC is responsible for facilitating and implementing the NC Wildlife Action Plan, which is a comprehensive wildlife resource conservation blueprint. The last Plan was completed in 2015.

- Recently completed an Addendum 1 to the 2015 Plan which is a minor revision that updated the Species of Greatest Conservation Need (SGCN).
- Currently working on Addendum 2 which is a major revision to add plants to our SGCN list. This Addendum will have a 30-day public comment period, but the content was developed by staff at Dept of Ag and Consumer Services, Plant Conservation Program as well as NC Natural Heritage Program. Adding this Addendum allows for funds to be spent on plants if Recovering America's Wildlife Act (RAWA) passes in Congress.
- The next Plan revision is due to USFWS by October 1, 2025.
- All of this information is available for download on our website.

f) Recovering America's Wildlife Act is still being considered in Congress under two bills, HR2773 and S2372.

- provide annual federal funding to fully implement Wildlife Action Plans in NC and all other states with a Plan

- to keep "common species common" and off the federal Endangered Species list.
- could secure up to $26 million annually for North Carolina wildlife resource projects focused on species of greatest conservation need (SGCN) and their habitats.
- allow significant opportunities for the NC Sentinel Landscape region including funding for projects related to plant conservation and restoration.
- website with additional information about the Act (ncwildlife.org/RAWA).

VIII. NCSU College of Natural Resources Report – Dr. Myron Floyd

a) MCIEAST Project six areas, two research projects with the College of Natural Resources. He spoke on the flood damage issues and the maps and areas. He spoke on the items that were on going with the Department of Defense. SEEDS Hemp project on going with Shaw University. He spoke on the strong hemp textile program and working on a memorandum of understanding.

IX. Sentinel Landscape Partnership Report - Mary Lou Addor

Research Efforts within the Sentinel Landscape

1. College of Natural Resources and Forestry Extension - Resource Programming in Support of Military Readiness for Marine Corps Installations East (MCIEAST)
Development of an online virtual landowner outreach and engagement in a 5-county area (Craven, Onslow, Pamlico, Jones, Pender, and Carteret) is currently underway.

2. College of Natural Resources Forest Biomaterials
Co-hosted a symposium with DOD that included a focus on uses of industrial hemp as alternative fiber for packaging, in bioenergy and supporting economic development. The CNR-DOD Symposium:

- Hosted the SEEDS – Sustainable Education and Economic Development Solutions Supercluster Symposium on campus Feb 10.
- Brought together a network of academic institutions, startups, mature organizations, government and NGOs, industry reps from agriculture, agroforestry and aquaculture – focused on global supply chain solutions and advancing the US position in the bio-economy –food, textiles, bio-composite materials
- Attending University of South Carolina, SC State University, Northern Arizona, University of Minnesota, Shaw University, University of Hawaii as well as representatives DOD, the hemp industry and forest and timberlands management.

- Specific to DOD and CNR, strong interest in research on uses of hemp in textiles and protective packaging in logistics and special operations activities.
- Next steps: develop memorandum of agreement for coordination and future collaboration

3. College of Natural Resources Center for Geospatial Analytics

Study: Predicting flood damage probability across the conterminous United States: Elyssa L Collins et al 2022 Environ. Res. Lett. 17 034006. ***(reference source)***

New study **used artificial intelligence** to predict where flood damage is likely to happen in the continental United States. Study suggests that recent flood maps from the Federal Emergency Management Agency do not capture:

1. probability of flood damage outside the 100-year floodplain
2. full extent of flood risk/flood damage – including monetary damage, human injury and loss of life – for more than a million square miles of land across the United States across a 14-year period (or, 790,000 square miles greater than flood risk zones identified by FEMA's maps). **Areas susceptible to flooding outside the floodplain, do not have to abide by insurance, building code and land-use requirements that could help protect people and property.**

Model is based on AI (computer learning) of methods to create predictions. Model relates predictors – variables related to flood damage such as extreme precipitation, topography, the relation of a home to a river – to a data set of flood damage reports from the National Oceanic and Atmospheric Administration. The output of flood risk is readily available and offers a way of rapidly updating flood maps as conditions change or more information becomes available. The data used to train the models is publicly available reports from NOAA made between December 2006 and May of 2020. When comparing recent 2020 FEMA maps:

1. 84.5% of the damage reports evaluated were not within the agency's high-risk flood areas.
2. 68.3%, were located outside of the high-risk floodplain, while 16.2% were in locations unmapped by FEMA.

a) One of the **biggest drivers of flood damage risk was proximity to a stream, along with elevation and the average amount of extreme precipitation per year.** The three Census regions with the **highest probability were in the Southeast. Louisiana, Missouri, the District of Columbia, Florida and Mississippi had the highest risk of any U.S. state or district in the continental United States. Of the 30 most high-risk counties, North Carolina had three: Dare, Hyde and Tyrrell.**

Findings of the study will be publicly accessible. Recently, the findings were shared with the NC Department of Environment Quality and Secretary Biser, the department that led North Carolina's State Climate Assessment Plan. As a proof of concept, the method efficiently and in real-time updates flood maps and future modeling is expected to account for climate change. The model is expected to be used by policy makers involved in land-use planning, and identifying vulnerable and underserved communities across the landscape.

National Sentinel Landscape Partnership

1.Finalized Memorandum of Understanding between the Department of Defense, the Department of Interior, and the Department of Agriculture establishing governing principles for the Sentinel Landscapes Partnership.

2. Federal Coordinating Committee added three new Sentinel Landscapes (as of February 2022), providing a total of ten Sentinel Landscapes in the US.

a. Camp Bullis (San Antonio Hill Country) Sentinel Landscape
b. Northwest Florida Sentinel Landscape
c. Southern Indiana Sentinel Landscape

3. Federal Coordinating Committee is expected to review North Carolina's Sentinel Landscape boundary extension request to include MOTSU and Camp Butner, and Brunswick, New Hanover, Durham, and Granville counties, sometime April 2022. If further information is required by the FCC, a small committee has been established to assist with this effort.

Eastern NC Sentinel Landscape Partnership

1. **Presentations**

a. Jan 7, 2022 – presented about the Eastern NC Sentinel Landscape to the Cape Fear Council of Governments, MOTSU, and Col Arnold in partnership with the NC Department of Military and Veteran Affairs, NC Department of Natural and Cultural Resources, NC Department of Agriculture & Consumer Services, and the NC Wildlife Resources Commission.

b. Feb 2, 2022- presented to the City of Goldsboro about opportunities with the current REPI Challenge in partnership with Seymour Johnson AFB, Friends of the Mountains to Sea Trail, Conservation Fund, Environmental Defense Fund, and NC State University College of Natural Resources.

c. Feb 15, 2022- presented to the NC Commander's Council about status of the current REPI Challenge in partnership with Seymour AFB, Ft. Bragg and Camp Mackall, and Marine Corps Installations East

2. **2021-22 NC Sentinel Landscape Partnership Quarterly Meetings:**

a. Will determine potential in person meeting dates in partnership with NC Farm Bureau and/or other partners.

b. Explore scheduling a 1-day meeting/field trip at an installation: example - Camp Butner
c. Develop a 2022 webinar series beginning with Climate Resilience and Flood Management Studies

3. **2021-22 NC Sentinel Landscape Partnership Coordinating Committee Calls**
a. Purpose: share current highlights of programs in development, or implementation and monitoring, determine resources to aid programming, and new developments within the Sentinel Landscape. (Sept 10, Oct 8, Nov [individual meetings with partners], Dec 10, Mar 11 [email communication])

4. **2022 NC Sentinel Landscape Partnership Recognition and Celebration Event**
a. SERPASS's event will be held in May
b. Partnership expected to hold an event in Fall, 2022 or Spring 2023.

5. **2021 National Sentinel Landscape Partnership Accomplishment Report**
a. https://sentinellandscapes.org/media/pqqbzjmw/2021_sentinellandscapes_accomplishmentsreport.pdf

6. **2022 National Sentinel Landscape Partnership Accomplishment Effort**
a. Collect & submit FY 21 data to the REPI Program for development of the 2022 Annual Accomplishments Report based on the following criteria:

- **Committed Funds:** total amount of funding committed to projects within the ENCSL (FY21). Data is stratified by organization to capture organizational investment, as well as contributions of partners. Relevant projects include those that support military readiness, agricultural productivity, biodiversity, natural resources, water quality and quantity, access to outdoor recreation, or goals identified within a sentinel landscape's strategic plan.
- **Acres Enrolled:** list by organizational contribution, the total number of acres within each Sentinel Landscape enrolled in land-management programs administered by the organization. A property is recognized as enrolled if (1) its respective landowner voluntarily participates in a federal or state land-management program that provides financial or technical assistance to promote sustainable agricultural practices, restore imperiled species and their habitat, or preserve critical natural resources, or (2) if a landowner or an organization receives a federal or state grant to conduct a conservation project on said property.
- **Acres Protected:** land acquisitions (fee simple or easement) that have completed the due diligence and closing actions necessary to obtain a real estate-interest.
- **Success Stories:** capture success stories of various organizations, the outcomes and the processes that lend themselves to collaborative work. Submitted six success stories and currently drafting additional success stories.

7. **2022 REPI Challenge Grant**

a. Focus area is on advancing climate resilience in the Sentinel Landscape area. Since September 2021, a core team and several partners have coordinated development of the 2022 REPI Challenge with
projected actions and fiscal support of $8.4M. The team has been comprised of Ft. Bragg, MCIEAST, and Seymour Johnson AFB (recently SJAFB decided to step back from the current proposal and
reapply in 2023 following ongoing planning efforts). Other partners include: the Nature Conservancy, NC Wildlife Resources Commission, College of Natural Resources, NC State, the Coastal Federation,
and the NC Department of Agriculture and Consumer Services. The final proposal is due March 21, 2022 and will be submitted March 17, 2022. Resilience measures provided include:

1) establishing three living shorelines at MCIEAST in response to lessening the impacts from increasing storm surge, long-term damage, and erosion.

2) lessening fuel loads on public and private lands in the Sandhills region near Ft Bragg through strategic prescribed fire management.

3) strategically increasing pervious surfaces and open space that can mitigate flood drainage resulting from urbanization and impervious surfaces that are accelerating drainage and runoff near
installations and the communities that serve them.

4) conducting research that examines the role of climate change on RCW populations.

8. **Revise NC Sentinel Landscape MOU**

a. use former model and distribute for comment

b. include information from National MOU as appropriate

9. **Climate Adaptation and Resilience Coordinator** – REPI pilot demonstration project to operate for 3 years beginning March 15, 2022. Position will be housed with the NC Coastal Federation.
CAR Coordinator will work in part (25-30%) on direct NC Coastal Federation projects and (70-75%) to develop a Sentinel Landscape Climate and Adaptation Plan, plus apply for project funding for various
resiliency measures. Project will be assessed for transferability across the other nine Sentinel Landscapes. CAR Coordinator - Chris Baille will work directly with Lou (and other partners).

* *Climate resilience generally defined as the adaptive capacity for a system to absorb stresses and maintain function in the face of external stresses imposed upon it by climate disruptions. ...*

Resiliency of Military Installations to Emerging Threats" hosted by the Subcommittee on Intelligence and Emerging Threats and Capabilities and Subcommittee on Readiness. Link to recording of the

hearing can be found: *https://armedservices.house.gov/2019/10/subcommittee-on-intelligence-and-emerging-threats-and-capabilities-and-subcommittee-on-readiness-joint-hearing-resiliency-of-military-installations-to-emerging-threats*.

X. Other Business

Bill Ross Spoke on the letter of interest with REPI; will get the letter to Evan Davis.

XI. Adjournment

David Smith adjourned the meeting at 3:40 pm.

Minutes submitted by: Veronica Jamison

Minutes approved by: