North Carolina Sentinel Landscape Committee



June 20, 2023

Agenda

1:30 pm	Welcome and Introduction ➢ Committee Member Roll Call ➢ Steve Troxler, Commissioner, NC Department of Agriculture & Consumer Services ➢ Rick Long, Installation Coordinator, NC Department of Military and Veterans Affairs ➢ Jeff Michael, Deputy Secretary, NC Department of Natural and Cultural Resources ➢ Cameron Ingram, Executive Director, NC Wildlife Resources Commission ➢ Dr. Myron F. Floyd, Dean, College of Natural Resources, NCSU ➢ Chester Lowder, Sentinel Landscape Partnership Liaison	Steve Troxler Commissioner of Agriculture Veronica Jamison Farmland Preservation Office Manager
1:35 pm	Reading of Ethics Reminder ➢ ETHICS REMINDER: Under the State Government Ethics Act, the chairman is required to remind all members of their duty to avoid conflicts of interest or appearances of conflicts of interest. If you have any conflict or appearance of conflict of interest with respect to any item on the agenda, please state this for the record and refrain from inappropriate participation on that item.	Steve Troxler Commissioner of Agriculture
1:36 pm	Approval of Minutes for February 14, 2023	Steve Troxler Commissioner of Agriculture
1:40 pm	Committee Member Reports Pertaining to NC Sentinel Landscape Activities ➢ NCDA&CS Report ➢ NC Department of Military and Veterans Affairs Report ➢ NC Department of Natural and Cultural Resources Report ➢ NC Wildlife Resources Commission Report ➢ College of Natural Resources - NCSU Report ➢ Sentinel Landscape Partnership Report	 Evan Davis Farmland Preservation Director Rick Long Installation Coordinator Jeff Michael Deputy Secretary Cameron Ingram Executive Director Dr. Myron F. Floyd Dean Chester Lowder Sentinel Landscape Partnership Liaison
2:40 pm	Eastern North Carolina Sentinel Landscape Combined Partners Map	Corey Hoilman Farmland Preservation Assistant Director Christian Vose NCDA&CS ISS Director
2:50 pm	Additional Sentinel Landscape Committee Business Items	Steve Troxler Commissioner of Agriculture
2:55 pm	Public Comments	Public Attendees
3:00 pm	Next Meeting, Assignments & Adjournment	Steve Troxler Commissioner of Agriculture

Committee Member Roll Call

- **Steve Troxler**, Commissioner, NC Department of Agriculture & Consumer Services
- **Rick Long**, Installation Coordinator, NC Department of Military and Veterans Affairs
- **Jeff Michael**, Deputy Secretary, NC Department of Natural and Cultural Resources
- **Cameron Ingram**, Executive Director, NC Wildlife Resources Commission
- **Dr. Myron F. Floyd**, Dean, College of Natural Resources-NCSU
- **Chester Lowder**, Sentinel Landscape Partnership Liaison

Ethics Reminder

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Approval of Minutes

- February 14, 2023

NCDA&CS ENCSL Program Updates

Current Contracts

Farm Name	Military Partner	County	Grantee	Length	Acres
G&H Properties	USAF-SJAFB	Hyde	Working Lands Trust	Perpetual	291.60
McCotter Farm Phase 1	Navy/MCIEAST	Pamlico	Working Lands Trust	Perpetual	1,217.87
Armstrong Farm Phase 1	USAF-SJAFB	Hyde	Working Lands Trust	Perpetual	314.00
Armstrong Farm Phase 2	USAF-SJAFB	Hyde	Working Lands Trust	Perpetual	337.00
Total Acres					2,160.47

New Military Contracts

Easement Name	Grantee	County	Acres	ADFP Grant	NAVY Match	Total Contract Amount
Futral Farm	Working Lands Trust	Onslow	485.01	$317,175.00	$298,375.00	$626,550.00
Jenkins Farm	Working Lands Trust	Jones	197.30	$231,982.98	$208,082.98	$451,065.95
Small Farm I	Working Lands Trust	Jones	138.68	$97,483.77	$73,583.77	$182,067.55
Small Farm II	Working Lands Trust	Jones	31.04	$45,244.81	$21,344.81	$77,589.62
			852.03	$691,886.56	$601,386.56	$1,337,273.12

Military Partnership Agricultural Conservation Easements Since July 2016

Military Partner	Acres Conserved	Easements Recorded	Counties
USAF-SJAFB	9,964.384	17	Bertie, Hyde, Tyrrell, Washington
Navy/MCIEAST	999.771	2	Jones, Pamlico
TOTAL	**10,964.155**	**19**	**6**

MOU with NC MAC

Project	Award	Expenses through May 2023	Balance
NCDA&CS Project	$375,000	$211,125.12	$163,874.88
NCSU Project	$200,000	$87,951.83	$112,048.17
NCFSWC Project	$175,000	$85,793.27	$89,206.73
TOTAL	$750,000	$384,870.22	$365,129.78

NC Department of Military and Veterans Affairs Report

NC Department of Natural and Cultural Resources Report

North Carolina Department of Natural and Cultural Resources

North Carolina Land and Water Fund (NCLWF) 2023 Grant Application Summary

NCLWF received $98.5 million in requests for 2023 grants:

- 143 applications
  - 102 land acquisition
  - 24 restoration
  - 2 innovative stormwater
  - 12 planning
- 15 acquisition applications in ENCSL counties*
  - Requesting $10.6 million
  - 6,400 acres
- 11 acquisition applications claiming military protection*
  - Requesting $12.6 million
  - 6,800 acres

*These groups overlap

<u>Funding decisions will be made in September.</u>

North Carolina Department of Natural and Cultural Resources

NCLWF 2023 applications in ENCSL counties and other military protection projects

Project	County	ENCSL County?	Request	Total Budget	Acres	Base Name (if military protection claimed)
2023-034 - NCCLT - Point Comfort Tract - Chowan River	Bertie	Yes	$189,290	$464,090	18	
2023-033 - NCCF - Trail Extension Tract - North River Wetlands Preserve	Carteret	Yes	$965,191	$1,965,191	787	MCAS Cherry Point
2023-036 - NCCLT - Weyerhaeuser Tract Phase 2 - Newport River	Carteret	Yes	$1,088,931	$1,742,431	587	MCAS Cherry Point
2023-066 - TCF - North River Tract - Carteret County Game Land	Carteret	Yes	$250,000	$557,100	165	
2023-035 - NCCLT - Smith-Sugg Pocosin	Craven	Yes	$559,590	$1,183,090	1,400	MCAS Cherry Point
2023-019 - Currituck County - Bennett Wells Tract - Albemarle Sound	Currituck	Yes	$602,600	$1,228,676	226	
2023-095 - TRLT - Linderman Tract - Cape Fear River	Harnett	Yes	$311,930	$570,930	86	
2023-026 - Johnston County - Kat Property - Neuse River	Johnston	Yes	$1,109,250	$1,743,550	72	USAF Seymour Johnson
2023-082 - TLC - Rogerson Tract - Little River Galax Bluffs NA	Johnston	Yes	$637,640	$1,042,640	99	USAF Seymour Johnson
2023-083 - TLC - Selma Town Park - Neuse River	Johnston	Yes	$1,200,000	$2,400,000	89	USAF Seymour Johnson
2023-085 - TNC - Beasley Tract - Holly Shelter Game Land NA	Pender	Yes	$1,662,335	$2,776,735	462	USMC Camp Lejeune
2023-088 - TNC - Smith Jackson Tracts - Sandhills Game Land	Richmond	Yes	$192,989	$389,878	118	US Army Fort Bragg
2023-097 - TRLT - Sharpe Tract - Grassy Island	Richmond	Yes	$565,100	$1,226,100	205	
2023-098 - TRLT - Sharpe Tract - Toms Branch	Richmond	Yes	$297,240	$648,240	85	
2023-047 - NCWRC - Jordan Timber Tracts - Sandhills Game Land	Scotland	Yes	$1,000,000	$2,804,000	2,021	US Army Camp Mackall
2023-102 - UPTS - Orton Creek - Boiling Spring Lakes Wetland Complex NA	Brunswick		$3,692,705	$5,798,705	1,041	Military Ocean Terminal Sunny Point
2023-080 - TLC - Newsom Tract - Camp Butner	Durham		$530,000	$1,550,000	177	NCNG Camp Butner
*All data based on applications as submitted and has not been confirmed		**Total**	**$14,854,791**	**$28,091,356**	**7,636**	

North Carolina Department of Natural and Cultural Resources

North Carolina Land and Water Fund (NCLWF) Flood Risk Reduction Grants

- **NCLWF funded 17 Flood Risk Reduction Projects in February totaling $15 million.**
- **7 projects totaling $5.3 million were located in ENCSL counties**

Project	Award	County	ENCSL County?
2022-FRR01 - DSWC - Automated Water Management to Reduce Flooding and Restore Wetland Hydrology in the Cape Fear	$110,000	Bladen	
2022-FRR48 - TNC - Restoring Former Ag Land in the Cape Fear River Basin	$495,000	Bladen	
2022-FRR07 - Buncombe County - Buncombe County Flood Prevention and Conservation Plan	$1,008,500	Buncombe	
2022-FRR35 - NCCF - Newport River Restoration Initiative Phase II	$1,600,000	Carteret	Yes
2022-FRR61 - Whiteville - Whiteville Stormwater Park	$628,786	Columbus	
2022-FRR12 - Durham - South Ellerbe Restoration Project	$1,000,000	Durham	
2022-FRR20 - HWA - Upper Pigeon River Flood Mitigation Planning	$2,000,000	Haywood	
2022-FRR24 - Hendersonville - Mud Creek Flood Risk Reduction	$1,120,929	Henderson	
2022-FRR29 - Maysville - Maple Street Green Stormwater Improvement Project	$236,000	Jones	Yes
2022-FRR03 - NCSU - Caswell Farm Water Farming Demonstration and Research Project	$571,633	Lenoir	Yes
2022-FRR26 - Kinston - Adkin Branch Flood Mitigation Phase I Construction	$2,000,000	Lenoir	Yes
2022-FRR30 - CMSWS - Barlowe Road Flood Mitigation and Water Quality Improvement Project	$500,000	Mecklenburg	
2022-FRR16 - NCSU DFER - Hofmann Forest Water Farming Demonstration and Research Project	$383,191	Onslow	Yes
2022-FRR28 - Lumberton - Lumberton Loop Five Mile Branch and Saddletree Swamp Confluence	$2,000,000	Robeson	
2022-FRR34 - NRC - Boone Creek Peacock Lot	$789,960	Watauga	
2022-FRR42 - Seven Springs - Town of Seven Springs Restoration	$380,001	Wayne	Yes
2022-FRR44 - TCF - Cherry Hospital Floodprint	$176,000	Wayne	Yes
Total	**$15,000,000**		

NORTH CAROLINA DEPARTMENT OF NATURAL & CULTURAL RESOURCES

NORTH CAROLINA LAND & WATER FUND

NC Wildlife Resources Commission Report

College of Natural Resources-NCSU Report

Research of Interest

Projecting U.S. Forest Management, Market, and Carbon Sequestration Responses to a High-Impact Climate Scenario. Dec. 28, 2022, *Forest Policy and Economics. Authors*: **Justin S. Baker,** George Van Houtven, Jennifer Phelan, Gregory Latta, Christopher M. Clark, Kemen Austin, Olakunle Sodiya, Sara B. Ohrel, John Buckley, Lauren E. Gentile and Jeremy Martinich.

Under more severe climate warming scenarios, the inventory of trees used for timber in the continental United States could decline by as much as 23% by 2100. The largest inventory losses would occur in two of the leading timber regions in the U.S., which are both in the South. The impact of climate change on forest ecosystems remains uncertain, with wide variation in potential climate impacts across different radiative forcing scenarios and global circulation models, as well as potential variation in forest productivity impacts across species and regions. This study uses an empirical forest composition model to estimate the impact of climate factors (temperature and precipitation) and other environmental parameters on forest productivity for 94 forest species across the conterminous United States. The composition model is linked to a dynamic optimization model of the U.S. forestry sector to quantify economic impacts of a high warming scenario (Representative Concentration Pathway 8.5) under six alternative climate projections and two socioeconomic scenarios. Results suggest that forest market impacts and consumer impacts could range from relatively large losses (−$2.6 billion) to moderate gain ($0.2 billion) per year across climate scenarios. [*Continue next slide]*

NC STATE UNIVERSITY College of Natural Resources

Temperature-induced higher mortality and lower productivity for some forest types and scenarios, coupled with increasing economic demands for forest products, result in forest inventory losses by end of century relative to the current climate baseline (3%–23%). Lower inventories and reduced carbon sequestration capacity result in additional economic losses of up to approximately $4.1 billion per year. However, our results also highlight important adaptation mechanisms, such forest type changes and shifts in regional mill capacity that could reduce the impact of high impact climate scenarios.

The Internet of Animals: what it is, what it could be. May 30, 2023. Trends in Ecology & Evolution. **Roland Kays** and Martin Wikelski.

Linking the internet of animals with Artificial Intelligence could help animals. The Internet of Animals (IoA) is a new model for understanding and managing life on Earth through digital knowledge and infrastructure. The internet has revolutionized global communication between humans. The IoA now extends information sharing beyond humans, to include animal life. The combined data sets on animals around the world enable a novel, emergent understanding of the needs and requirements of animals. At the same time, this IoA knowledge provides important guidance for humans to sustainably coexist with wild animals.

Current IoA systems include ecology and conservation applications and agricultural applications and could be linked together for analysis and predictions. The next generation of IoA could forecast ecological living conditions on the planet, an important aim for the future, in which IoA can contribute a novel source of previously untapped information, or the next generation of disease analytics (e.g., CDC Center for Forecasting and Outbreak Analytics) to establish more linkages between human and animal data sets. *[Continue next slide]*

Further, the next generation of IoA,has the potential to improve the lives of domestic animals as well as reduce their impact on natural systems. Commercial smart products can collect sensor data linking animal data from those sensors into the IoA framework for utilization in science, monitoring, conservation, and societal applications.

Forecasting systems will become better as more and different sources of information are included. Even though the IoA information is far from complete and fully understood, it will provide a framework for life forecasting.

Publications of Interest

The College of Natural Resources believes in sharing knowledge, ensuring the sustainability of North Carolina's unique natural resources, and supporting the economic prosperity of NC communities. The faculty, staff, students and alumni are discovering and sharing real solutions to the world's grand challenges every day. Major topics are and can be accessed at: https://cnr.ncsu.edu/extension-outreach/publications

- **Natural Resources General Information**
- **Forest Biomaterials Resources**
- **Forestry and Environmental Resources**
- **Parks, Recreation and Tourism Management Resources**

Workshops of Interest Related to Natural Resources

- **June 21- 8:30am-12:00pm.** Timber Income and Expenses: Business or Investor Income Tax Reporting? What a Tax Professional Needs to Know.
  Location: N.C. Cooperative Extension Wake County Center, 4001-E Carya Drive, Agriculture Building, Suite E, Raleigh NC 27610
  Half-day workshop will address timber tax issues, including:
- What is timber for income tax purposes?
- Reporting of income: business versus investor
- Expense deduction: business versus investor
- Form T
- Like-kind exchange
- Conservation easements
- Carbon credits
- Property tax considerations

June 20th, 2023 (T), 6 - 8 PM ET, Cumberland County Landowner Resource Workshop. Join this free landowner resource workshop in Fayetteville, NC focused on topics: Prescribed Burn Associations, Taxes, NRCS Farm Bill (EQIP & CSP), Partners for Fish and Wildlife, Cooperative Extension, and the Forest Development Program. Dinner is provided. Register by June 13th by calling or emailing Benjy.Strope@ncwildlife.org

Sentinel Landscape Partnership Report



Eastern NC Sentinel Landscape Partnership

National Sentinel Landscape Partnership

The ENCSL Partnership Coordinator and the ENCSL Coastal Climate Adaptation and Resilience Coordinator attended a week-long workshop near Baxter, MN. Visiting the Camp Ripley Sentinel Landscape, the event was attended by other Sentinel Landscape Coordinators, members of the Federal Coordinating Committee, representatives from various federal and state agencies, including military partners.

Camp Ripley, Minnesota Army National Guard, was once again, the recipient of the **Secretary of Defense Environmental Awards for its achievements in** Natural Resources Conservation.

Eastern NC Sentinel Landscape Partnership

This quarter's highlight for the Eastern NC Sentinel Landscape (ENCSL) was the review and finalization of the Memorandum of Understanding (MOU) that helped to establish and continues to support the advancement of the ENCSL. The purpose of the MOU is to establish a mutually beneficial partnership between the Principals (state agencies, federal agencies, military compatible land use supporting agencies, private and non-governmental organizations) and the broader network of the Partnership that is anchored at our five installations. [continue next slide]



Eastern NC Sentinel Landscape Partnership

The Principals help coordinate the delivery of the Partnership objectives, aiming to optimize the benefits of federal, state, local and other assistance to private landowners whose working and natural lands, including lands managed for wildlife and habitat conservation, serve to protect the military mission and natural infrastructure areas of the North Carolina.

The second highlight of this quarter is the development of the new Strategic Plan (draft) being reviewed by the Principals, eventually the broader Partnership, and our Legacy Partners. The Principals are tasked with development of the vision statement that will allow each subsequent 5-year plan to contribute overall to the long-term vision and objectives of the ENCSL.

ENCSL Progress Summary:

In addition to the program highlight, efforts this quarter focused on the development or completion of new projects while enhancing current efforts and deliverables to produce organizational or cross-sector results and outcomes.

This quarter included the following:

1. *continued designed and implementation of the new ENCSL Partnership website* that will improve coordination, communication, and provide access to archival Partnership information.

2. *ongoing administration and facilitation support of the* current landscape Partnership network and infrastructure which included two in-person as well as two virtual meetings to ensure discussion and engagement between the members about specific topics and to support collaborative decision-making.



Eastern NC Sentinel Landscape Partnership

3. efforts to strengthen military readiness evident in continuing ability to secure options and/or easements in long-term support of military readiness and discuss/determine approaches to secure resiliency across the landscape.

4. working with installation points of contact navigating internal processes to secure steps to develop a MIR or off-base climate resilient plan.

5. revision of the ENCSL Partnership Memorandum of Understanding (MOU) operational through 2026.

6. draft of the 2023-2028 ENCSL Strategic Plan (in preparation for Legacy and Partnership review)

7. draft of the FY24 REPI Challenge Pre-Proposal (in preparation for early June submittal)

*8. draft of the FY24 RCPP proposal (*in preparation for August submittal)

9. continued exploration of proposal for the FY24 Land and Water Conservation Fund in Partnership with REPI.

10. continued development of the Neuse Urban and Rural Partnership for Seymour Johnson AFB (Johnston County) and the development of resilience projects for Wayne County.

Eastern North Carolina Sentinel Landscape Combined Partners Map

Additional Business Items



Public Comments



Next Meeting, Assignments, & Adjournment

