

# N. C. Department of Agriculture & Consumer Services

## 2023 Resilience Strategy Report

The North Carolina Department of Agriculture & Consumer Services (NCDA&CS) is pleased to provide this Resilience Strategy Report to describe the work the Department has completed since the release of the state's 2020 Climate Risk Assessment and Resilience Plan. We look forward to working with other agencies in dealing with resiliency and climate change issues.

### Climate Vulnerabilities and Risks

The paragraphs below describe the latest climate vulnerabilities identified by divisions within NCDA&CS, as well as a brief overview of the Department's response and preparedness efforts.

#### **Preserving Farmland**

Farmland preservation is one of the, if not the highest, priority for the department. The Farmland Preservation Division works with counties and nonprofits to record conservation easements on privately-owned farms and forests throughout North Carolina. These agricultural conservation easements restrict the residential, commercial, and industrial development of land to maintain its agricultural and forestry production capability. Agricultural conservation easements are key components in the department's climate resilience strategy because working lands are actively managed by farmers, providing essential benefits such as erosion control, carbon sequestration, rainwater percolation, waterway buffer protection, and permeable surfaces.

The ADFP Trust Fund recorded 2,946 acres of conservation easements between October 1, 2022, and September 30, 2023.

Since establishing the Eastern North Carolina Sentinel Landscape in July 2016, the ADFP Trust Fund has partnered with the U.S. Air Force, U.S. Marine Corps, and U.S. Navy to record conservation easements. NCDA&CS and the military services provided funds for easement purchases and transactional costs to permanently protect working farms and forests in military training priority zones. In some projects, the U.S. Department of Agriculture provided additional funds for easement purchases. Over 12,772 acres of conservation easements have been recorded through these military partnerships.

In May 2023, the Farmland Preservation Division of NCDA&CS announced the NC Forever Farms program, a new initiative to celebrate farmland preservation efforts across the state. This program recognizes family farms that have taken the ultimate step in protecting precious working lands that are vital to the future of agriculture in North Carolina. Through permanent agricultural conservation easements, these NC Forever Farms will always be protected from development and the threat of conversion.

## **Agricultural Research Stations**

The Research Stations Division (RSD) feels the effects climate change intimately. Just like a private farmer, RSD deals with weather extremes that impact planting, growing seasons, harvesting, crop yields, quality, etc. Learning to mitigate the adverse effects of weather extremes comes in the form of Precision Agriculture. With the use of satellite guidance technology, RSD can make precise applications of fertilizers and chemicals, reducing the overapplication of these crop inputs as well as the number of trips across a field in a tractor. This technology enables the reduction of inputs because there is less overlap. Precise GPS guided application translates into optimum yields with less input costs, potential runoff, and gallons of fuel.

## **North Carolina Forest Service**

The NC Forest Service has been dedicated to the protection, conservation, and stewardship of North Carolina's forests for over a century. It offers a wide variety of forest management programs and services that help landowners become more knowledgeable about their woods as well as their options. NC Forest Service Foresters and Rangers work one-on-one with landowners to prepare woodland plans tailored to the landowner's unique management goals and the features of the property. In 2023, 5,098 Woodland Management Plans were prepared, providing landowners with sound forest management recommendations on 343,338 acres. A total of 1,833 of these plans were prepared under the Agricultural Disaster Recovery Program (ADRP) providing \$1.3 million in planning assistance funding. Through the Forest Development Program, Florence Restoration Fund, and other forestry cost share programs, the N.C. Forest Service allocated \$3.05 million in funding and over 56,033 practice acres received treatment. A total of 47,959 acres of forest tree planting on private lands were completed resulting in approximately 26.1 million seedlings being planted. The Southern Pine Beetle Prevention Program (SPBPP) completed 68 projects statewide on 3,232 acres providing \$245,255 to landowners for implementing forest health improvement treatments.

Agency staff continued to work with forest stakeholders to ensure the protection of the State's water resources, with 5,953 water quality inspections occurring statewide on 145,018 acres. Through the Foresters for Healthy Waters partnership project with U.S. Fish and Wildlife Service, natural resource professionals completed 30 projects on 3,142 acres providing \$71,250 to landowners for pre-harvest forest plan preparation to protect critical habitat for aquatic species within the pilot program area.

## **Wildfires**

For the NC Forest Service, fiscal year 2022-2023 will go down as a slightly above normal occurrence year for North Carolina with 4,671 wildfires (10-year average 4,316). However, the acres burned during this period is well above average at 69,690 acres (10-year average 25,606).

Most of these acres can be attributed to 3 large wildfires that occurred in the eastern portion of the state. The Last Resort Fire (Tyrrell County) burned 5,280 acres, Great Lakes Fire (Craven/Jones Counties) burned 32,156 acres and Pulp Road Fire (Brunswick County) burned 15,670 acres.

One of the most effective tools to mitigate wildfire risk is to conduct prescribed fires that remove excessive fuels and maintain healthy ecosystems. Prescribed fire is also an important habitat management tool at many of the Plant Conservation Preserves, used for the benefit of endangered and threatened plant species. However, at a time when more prescribed burns are needed for habitat restoration and to mitigate increasing wildfire risks, fewer burns are possible in part due to challenging weather patterns with wet winters moving quickly into dry and droughty springs. These weather patterns have effectively shortened the traditional prescribed burning season on both ends and are negatively impacting wildfire mitigation efforts across North Carolina. Despite these challenges, it was a good year for prescribed burning with 919 projects completed for 75,510 acres. The Grindstone Fire (1/27/2021) on Pilot Mountain was a great example of the benefits of prescribed burning. Fuel loading in the area was lower due to previous burning and fire breaks were already in place. This made suppression of the wildfire timelier and more cost effective. Even though it was categorized as a wildfire, the impacts on the landscape are minimal and more in line with the results normally seen on a prescribed burn.

### **Plant Conservation**

The Plant Conservation Program continues to view flood damage at the Plant Conservation Preserves and risk of wildfire as its two biggest climate change hazards throughout the state. In 2022, mitigation efforts were undertaken to repair damage caused by flooding from heavy rain events on Plant Conservation Preserves. The Plant Conservation Program maintains a partnership with the Division of Water Resources within North Carolina's Department of Environmental Quality at a Plant Conservation Preserve in Sampson County where wells are monitored to measure ground water salinity as part of a state-wide program to track saltwater intrusion related to climate change. This information will help inform management of this preserve as well as provide important data for a state-wide analysis. Another potential climate resiliency challenge identified by the Plant Conservation Program is that changing weather patterns may have notable negative impacts on the already severely limited ranges of many of North Carolina's rare plant species. This threat could have significant future implications on land management and endangered species conservation needs.

### **Soil and Water Conservation**

The Division of Soil and Water Conservation through its Stream Debris Removal program works with 103 local sponsors to remove debris that is blocking stream flow and potentially

contributing to flooding of adjacent and/or upstream cropland and communities. FY2023, local sponsors have completed greater than 4,000 miles of stream debris removal and repair. Local sponsors have been reimbursed over \$50,000,000 including over \$10,000,000 in Streamflow Rehabilitation Assistance Program (StRAP) reimbursement. Continued efforts of debris removal and streambank restoration activities further protect farm land, forest land and communities. The newly authorized Streamflow Rehabilitation Assistance Program will accelerate work to restore streamflow and drainage across the state.

A continuing goal is increasing on-farm water storage through the Agricultural Water Resources Assistance Program (AgWRAP) to assist agricultural producers and landowners in constructing and enhancing ponds and water collection. On-farm storage of water flattens the runoff hydrograph to reduce peak runoff, which lessens downstream flood potential. On-farm storage also increases water available for irrigation when needed.

The Division continues to assist agricultural producers in upgrading existing irrigation systems and to assist producers in the implementation of conservation irrigation conversion. Upgrading existing irrigation systems improves the efficiency of irrigation methods, thereby reducing the demand on water resources for agricultural production.

The Division oversees education and implementation of cover crop, conservation tillage and cropland conversion programs. These practices result in many climate resiliency benefits, including:

- Improved water quality from increased nutrient scavenging and cycling leading to a reduction in sedimentation and agricultural chemical inputs.
- Stormwater management leading to increased rainfall infiltration and decreased soil erosion and runoff.
- Drought resilience from improved efficiency in soil moisture use and increased soil water holding capacity.
- Increasing plant biomass and soil carbon storage leads to an improved means for carbon sequestration.

It is noted that through the Agriculture Cost Share Program (ACSP), the Division has and continues to assist producers in implementing these beneficial climate conservation practices.

## **Food Distribution**

The Division of Food Distribution along with the support of the Division of Marketing have worked in collaboration with support from the Agri-Services and Finance and Business office to coordinate applications of grants from United States Department of Agriculture (USDA) focusing on local food production in agriculture. These efforts extend additional opportunities to small farmers for marketing agricultural commodities along with providing food through Farm to School, Food Hubs, and the Food Banks across North Carolina. These grants total over \$24 million dollars of impact to farmer resilience along with providing nourishment to many of our state's citizens of all ages. Partnerships with agencies of similar vision for food

procurement and distribution has allowed NCDA&CS to reach greater audiences while minimizing the need to add additional personnel resources.

### Activity Chart

The chart and paragraphs below detail the specific climate resilience initiatives completed, underway, or planned by the NCDA&CS.

Activity	Status	Expected Completion Date
<b>1.0. Research Station Division</b>		
1.1. Inland Flooding Control	Complete	N/A
1.2. Developing Climate Adaptive Technologies for Food Production	Ongoing	N/A
1.3. Protecting Endemic Species	Ongoing	N/A
<b>2.0. NC Forest Service</b>		
2.1. Firewise USA Program	Ongoing	N/A
2.2. NC Fuels Removal Program	Ongoing	N/A
2.3. Community Wildfire Protection Plans	Ongoing	N/A
2.4. Community Fire Protection Program	Ongoing	N/A
2.5. Resist Wildfire NC & Prescribed Fire Websites	Ongoing	N/A
2.6. Forest Development Program (FDP)	Ongoing	N/A
2.7. Florence Restoration Fund (FRF)	Ongoing	N/A
<b>3.0. Farmland Preservation Division</b>		
3.1. Preserving Upriver Farms to Reduce Flooding in NC	Ongoing	2025
3.2. Preserving Upriver Farms to Reduce Flooding in NC	Planned	2027
3.3. 2023 REPI Challenge	Underway	2025
3.4. WNC Farm Resilience Project with NC Foundation for Soil and Water Conservation	Ongoing	N/A
3.5. Pasture Management Project with NC Foundation for Soil and Water Conservation	Ongoing	N/A
3.6. Improving Soil Health: Cover Crops Project with NC Foundation for Soil and Water Conservation	Ongoing	N/A
<b>4.0. Soil and Water Conservation</b>		
4.1. Stream Debris Removal	Ongoing	N/A
4.2. Swine Buyout Program	Ongoing	N/A
4.3. On-Farm Water Storage	Ongoing	N/A
4.4. Conservation Irrigation Conversion	Ongoing	N/A
4.5. Cover Crops, Conservation Tillage, and Cropland Conversion	Ongoing	N/A
<b>5.0. Marketing Division – Aquaculture</b>		

5.1. Adaptive Practices for Controlling Excessive Rain Water Overflow, Turbidity and Settleable Solids in Aquaculture	Ongoing	N/A
5.2. Educational Producer Meetings for Resource Assistance and Economic Recovery Following Weather Disasters	Ongoing	N/A
<b>6.0. Agronomic Services Division</b>		
6.1. Soil Health and Nutrient Management	Ongoing	N/A
<b>7.0. Plant Industry Division and Plant Conservation Program</b>		
7.1. Inland Flooding Control	Ongoing	N/A
7.2. Protecting Endemic Species	Ongoing	N/A
7.3. Regenerative Practices That Sequester Carbon	Ongoing	N/A
7.4. Protecting Ground Water Quality	Ongoing	N/A
7.5. Protecting NC from Invasive Pests	Ongoing	N/A
<b>8.0. Food Distribution Division</b>		
8.1. Local Food for Schools (LFS)	Underway	2024
8.2. Local Food Procurement Agreement (LFPA)	Underway	2025
8.3. Local Food Procurement Agreement Plus (LFPA+)	Underway	2026

## Activity Progress

### 1.0. Research Station Division

#### 1.1 Inland Flooding Control

**COMPLETE**

The Cherry Research Station in Goldsboro completed berm repairs. The work repaired damage that occurred during Hurricane Matthew in 2016. This effort will help protect the station from flood waters.

#### 1.2. Developing Climate Adaptive Technologies for Food Production

**ONGOING**

Research Stations across the state hosted research trials to continue improving crop and animal production. These trials include heat mitigation and tolerance in livestock, feed efficiency, crop breeding, disease/insect management, food safety, soil health and water management in cropping systems.

#### 1.3. Protecting Endemic Species

**ONGOING**

The Division continued research on, and implementation of, best practices on forestry tracts to protect plant and animal species unique to North Carolina.

### 2.0. NC Forest Service

#### 2.1. Firewise USA Program

**ONGOING**

The Firewise USA program is a nationwide voluntary program that helps homeowners improve the ignition resistance of homes and communities. Homeowners learn about the “Home Ignition Zone” and ways to reduce and/or mitigate ignition sources in this area. Currently, North Carolina has 37 communities actively participating in this program.

**2.2. NC Fuels Removal Program****ONGOING**

The intent of the Fuels Removal Program is to reduce the wildfire risk by providing a road-side debris pile removal service. This is a free service to communities and homeowners within North Carolina. This program is funded by the North Carolina Community Firewise Mitigation Grant.

**2.3. Community Wildfire Protection Plans****ONGOING**

Community Wildfire Protection Plans (CWPPs) are holistic fire management plans that evaluate wildfire hazards and provide preparedness, mitigation, and prevention recommendations at the fire district level. Currently, 899 CWPP's have been completed across N.C. and 94 are in various stages of development.

**2.4. Community Fire Protection Program****ONGOING**

The USDA Forest Service's Community Fire Protection Program was established to provide funding to states to prevent wildfires and mitigate fire hazards that threaten communities surrounding national forestland. Through this program, prescribed burning and mechanical treatments are completed to reduce forest fuel loading within 10 miles of USDA Forest Service lands. These services are performed at no cost to the landowner by the agency with funding assistance provided by the USDA Forest Service. On average, the North Carolina Forest Service (NCFS) has completed 4,698 acres of prescribed burning annually under this program.

**2.5. Resist Wildfire NC & Prescribed Fire Websites****ONGOING**

"Resist Wildfire NC" (<http://www.resistwildfirenc.org/index.htm>) and "Good Fires" (<https://www.ncforestservice.gov/goodfire/index.htm>) are both initiatives aimed at educating the public. Resist Wildfire NC focuses on things that homeowners can do on their own to improve their home's ability to survive a wildfire. The NCFS Good Fires website is an ongoing effort to educate the public about the benefits of prescribed fire and provide a repository of resources relating to the subject.

**2.6. Forest Development Program (FDP)****ONGOING**

The Forest Development Program (FDP) continues to be a successful program that assists North Carolina woodland owners who are interested in receiving financial cost-share assistance for site preparation, tree planting, prescribed burning, and forest stand improvements on their woodlands. This program directly and efficiently results in a wide range of economic and environmental benefits for landowners, North Carolina's citizens and the many natural resources that rely on our woodland habitats. The FDP Program is administered by the North Carolina Forest Service and is currently funded through assessments paid by the North Carolina forest industry. In FY 2019-20, the Forest Development Program (FDP) financially assisted landowners in completing 971 forest management projects statewide. Accomplishments included 3,426 acres of forest stand improvement, 14,489 acres of site preparation, and 21,286 acres of tree planting consisting of approximately 13 million tree seedlings. \$1,662,714.02 in FDP cost-share dollars were reimbursed to private landowners. North Carolina landowners paid the remaining \$4,382,608 of costs to implement these forestry practices. The FDP requires a 10-year forest stand maintenance agreement for landowners to remain eligible to retain the reimbursement payment from the program. Using a carbon growth and yield simulator with typical tree planting assumptions for southern yellow pine, it is projected that each acre planted in trees with FDP funding could result in approximately 23.1 tons of carbon/acre sequestered.

### **3.0. Farmland Preservation Division**

#### **3.1. Preserving Upriver Farms to Reduce Flooding in NC**

**ONGOING**

This phased project aims to reduce the negative impacts of soil erosion and runoff in the river basins in the Piedmont and Sandhills of North Carolina. In the past several years, hurricanes, tropical storms, and significant rain events in the state have caused catastrophic flooding events in Eastern North Carolina. There are several factors linked to these flooding events, including population growth, increased runoff from residential and commercial development, and a lack of debris removal from rivers and streams. Conservation easements will be placed on approximately 4,900 acres of farms and forests in the Upper Cape Fear River Basin. The working lands that are preserved are actively managed by farmers, providing essential benefits like erosion control, carbon sequestration, rainwater percolation, waterway buffer protection, and permeable surfaces. When conservation practices are enacted, they will help in managing animal waste, enhancing wildlife habitat, improving irrigation water management, creating stream bank protection, and complying with environmental regulatory requirements. Preservation of these working lands will protect existing pervious surfaces and reduce the impact of runoff downriver while supporting North Carolina's top industry and providing fresh, local foods to the state's residents and quality products to the agriculture, forestry, and fiber industries domestically and globally. To date, the department has committed \$1M in funding for conservation easements to 372 acres of farmland for this project.

#### **3.2. Preserving Upriver Farms to Reduce Flooding in NC**

**ONGOING**

The department will apply for funding for the second phase of the Preserving Upriver Farms to Reduce Flooding in NC project through the USDA Regional Conservation Partnership Program (RCPP). Phase II will focus on farmland in the Upper Neuse River Basin located in portions of Orange, Person, Durham, Granville, Wake, Franklin, Nash, Wilson, and Johnston counties. The proposed funding request from USDA will be approximately \$8.5 million.

#### **3.3. 2023 REPI Challenge**

**UNDERWAY**

In conjunction with the North Carolina Sentinel Landscape Partnership, the department is applying for working lands conservation easement funding through the 2023 Readiness and Environmental Protection Integration (REPI) Challenge. This project will reduce the negative impacts of soil erosion and runoff in areas identified by the military as critical to base sustainability and training viability. The proposed funding request from the Department of Defense will be approximately \$4.9 million for 4,915 acres of proposed conservation easements.

#### **3.4. WNC Farm Resilience Project with NC Foundation for Soil and Water Conservation**

**ONGOING**

This project is a regional effort in promoting agricultural climate resiliency at the farm level by introducing and refining USDA technical resources via five carbon sequestration demonstrations on local farms in WNC and in partnership with five local Soil and Water Conservation Districts (SWCDs).

#### **3.5. Pasture Management Project with NC Foundation for Soil and Water Conservation**

**ONGOING**

This statewide outreach program through local SWCDs improves pasture management and ensures farms are drought resilient. The project involves 25 pasture management demonstrations

throughout the state. Through the demonstrations, producers learn pasture management techniques that minimize overgrazing, decrease pasture sediment runoff, and increase soil moisture rates to allow pastures to optimize water use during drought conditions.

**3.6. Improving Soil Health: Cover Crops Project with NC Foundation for Soil and Water Conservation** **ONGOING**

In 2019, multi-species cover crop demonstrations were planted in Camden, Stanly, Duplin, and Nash counties. Heavy rye cover-crop demonstrations were planted in Halifax, Hoke, and Northampton counties. The demonstrations teach producers the benefits of cover cropping, including reduced soil erosion, improved water quality, conservation of soil moisture, increased organic matter, increased nitrogen fertility, weed suppression, disease suppression, and carbon sequestration.

**4.0. Soil and Water Conservation**

**4.1. Stream Debris Removal** **ONGOING**

The Stream Debris Removal program works with local sponsors to remove debris that is blocking stream flow and potentially contributing to flooding of adjacent and/or upstream cropland and communities. In 2022, local sponsors have completed nearly 4088 miles of debris removal and stream repair. Working with local contractors, debris removal and streambank restoration activities continue to further protect ag land, forest land and communities.

**4.2. Swine Buyout Program** **ONGOING**

NCDA&CS is progressing to buy out five swine operations that are currently operating within the 100-year floodplain. This is a joint project with USDA Natural Resources Conservation Service. The project will include placing a conservation easement on the property that will prohibit operation of any confined feeding operation within the easement area and also prohibit residential or commercial development of the property. Crop and pasture-based livestock production will be allowed.

**4.3. On-Farm Water Storage** **ONGOING**

The Division of Soil and Water Conservation is increasing on-farm water storage through the Agricultural Water Resources Assistance Program (AgWRAP) to assist agricultural producers and landowners in constructing and enhancing ponds and water collection. On-farm storage of water flattens the runoff hydrograph to reduce peak runoff, which lessens downstream flood potential. On-farm storage also increases the amount of water available for irrigation when needed.

**4.4. Conservation Irrigation Conversion** **ONGOING**

The Division of Soil and Water Conservation is upgrading existing irrigation systems to improve the efficiency of irrigation methods, thereby reducing the demand on water resources for agricultural production.

**4.5. Cover Crops, Conservation Tillage, and Cropland Conversion** **ONGOING**

NCDA&CS oversees education and implementation of cover crop, conservation tillage and cropland conversion programs. These practices result in many climate resiliency benefits, including:

- Improved water quality from increased nutrient scavenging and cycling leading to a reduction in sedimentation and agricultural chemical inputs.

- Stormwater management leading to increased rainfall infiltration and decreased soil erosion and runoff.
- Drought resilience from improved efficiency in soil moisture use and increased soil water holding capacity.
- Increasing plant biomass and soil carbon storage leads to an improved means for carbon sequestration.

## **5.0. Marketing Division – Aquaculture**

### **5.1. Adaptive Practices for Controlling Excessive Rain Water Overflow, Turbidity and Settleable Solids in Aquaculture** **ONGOING**

By utilizing a 12-18 inch freeboard to catch excess rainfall amounts, NC catfish farms created the best management practice to help limit pumping requirements and expenses and decrease excess rainwater overflow from farms. With assistance and coordinated meetings from NCDA&CS, North Carolina Farm Bureau (NCFB) and NC Cooperative Extension on behalf of the farms with the DEQ Division of Water Resources, the practice was reviewed and accepted as a best management practice to mitigate excess water overflow from ponds and reduce turbidity. Similar practices are in use for NC trout producers by utilizing settling ponds at raceway ends. The settling pond practice was proposed and accepted to offer cost share by NC Soil and Water Conservation through collaboration from NCDA&CS, NCFB and NC State University.

### **5.2. Educational Producer Meetings for Resource Assistance and Economic Recovery Following Weather Disasters** **ONGOING**

The NC Aquaculture Association, in partnership with NCDA&CS, continues to host regional meetings for producers to review assistance programs offered through USDA's Farm Service Agency. Meeting offerings reach producers of groups such as the NC Shellfish Growers Association and NC Aquaculture Association. Educational resources and examples are provided to farmers to utilize NAP Insurance programs, along with resources for cost share and disaster assistance programs to prepare and recover following weather disaster events.

## **6.0. Agronomic Services Division**

### **6.1. Soil Health and Nutrient Management** **ONGOING**

Regional agronomists provide daily on-site consulting services to help growers troubleshoot on-farm nutrient problems, establish appropriate agronomic sampling programs and promote responsible land management to help safeguard environmental quality. Cropland that is under a strong nutrient management program is more resilient to drought.

## **7.0. Plant Industry Division and Plant Conservation Program**

### **7.1. Inland Flooding Control** **ONGOING**

The Plant Conservation Program (PCP) has secured funding to address existing culvert and road wash-out concerns at coastal plain preserves. Additional culvert and road wash-out concerns have been identified at other preserves due to storm-related inland flooding. The Program is working collaboratively with the Soil and Water Resources Division to design long-term solutions and repairs.

**7.2.A Protecting Endemic Species**

**ONGOING**

Habitat management continues in regard to land management activities such as tree-thinning, prescribed burning (in close collaboration with NC Forest Service), and invasive species control where appropriate on Plant Conservation Preserves to rehabilitate and enhance endemic species' habitats. In 2021, the PCP initiated a five-year restoration and research project to study the interaction between three endangered plant species and prescribed fire, used to manage their habitats. The goal is the help understand the demographic responses in these species to adapt our fire prescriptions for best results.

**7.2.B Protecting Endemic Species**

**ONGOING**

Elongate Hemlock Scale has become a serious pest of Fraser Fir Christmas trees as well as other firs, pines, and spruces. In NC, hemlocks and true firs are the most common hosts. Control is concentrated on timely chemical and horticultural oil treatments, natural controls such as parasitic wasps and cultural controls so as not to plant young trees in infested areas. Total control is not achievable at this point due to lack of control measures, but researchers continue to find solutions.

**7.3. Regenerative Practices That Sequester Carbon**

**PLANNED**

The PCP is planning for tree replanting projects as appropriate within Plant Conservation Preserves. The intent was to plant longleaf pine in recently harvested areas; however, Covid-19 related delays and unseasonably wet conditions delayed this project until 2022.

**7.4. Protecting Ground Water Quality**

**ONGOING**

The PCP partnered with Division of Water Resources in DEQ to install permanent monitoring wells at the Pondberry Bay Plant Conservation Preserve in Sampson County. These wells are part of a state-wide program to monitor saltwater intrusion (a climate change hazard) and other factors in groundwater.

**7.5. Protecting NC from Invasive Pests**

**ONGOING**

The Plant Industry Division continues to work to prevent the establishment of new pests in the state, which would hurt or destroy our native forests and vegetation. The Division implements regular trapping programs for early detection and control measures to protect our state.

**8.0. Food Distribution Division**

**8.1. Local Food for School (LFS)**

**ONGOING**

Funding to help in supporting locally grown and processed foods in the school system. NCDA&CS secured USDA funding for the purchase of local foods to be purchased and distributed through collaboration with School Nutrition Services at NC Department of Public.

**8.2. Local Food Procurement Agreement (LFPA)**

**ONGOING**

Funding to help in supporting locally grown and processed foods through North Carolina Food Hubs. NCDA&CS secured USDA funding for the purchase of local foods. This USDA grant is being executed through a partnership with the non-profit organization Carolina Farm Stewardship Association (CFSA).

**8.3. Local Food Procurement Agreement Plus (LFPA+)**

**ONGOING**

Funding to help in supporting locally grown and processed foods through the North Carolina Food Banks. NCD&CS secured USDA funding for the purchase of local foods. This USDA grant is being executed through a partnership with the non-profit organization Feeding the Carolinas.

## Looking Ahead

The North Carolina Department of Agriculture and Consumer Services intends to continue executing programs and services for the citizens of the state of North Carolina that promote the resiliency of the agriculture industry and our environment. Building partnerships with other agencies across the state and nation will help to promote initiatives that will benefit the health and wellbeing of our citizens and environment for a more resilient North Carolina as a whole.