Plan writers are encouraged to address all required resource elements in a forest stewardship plan. There are 16 resource elements that must be addressed if they are present on the property and identified as important by the landowner. Tree Farm plan writers must also protect special sites to satisfy one of the standards of sustainability for forest certification. Special sites should be managed in ways that recognize their unique, historical, archeological, cultural, geological, biological or ecological characteristics or significance.

These unique sites generally warrant protection and special considerations when implementing activities on your property. These sites should be identified through consultation and mapping during property reconnaissance before preparing the management plan. It is especially critical to understand where such sites are located before recommending or conducting ground disturbing projects or management activities on the property.

Cultural resources refer to landscapes, structures, archeological artifacts, and vegetations that represent a culture of society. These remains are pieces of history that can provide a glimpse into the technology, culture, and environment of earlier societies and reveal much about our country’s origins and development. Cultural resources can inform us about our evolving relationship with the natural world.

Old home sites are considered to be culturally significant and may warrant protection as a historically special site.

Continued on Page 3
Stewardship Coordinator’s Corner

By Les Hunter

A Message from The Forest Stewardship Coordinator

I’ll have to admit I haven’t been outdoors as much as I’d like to this fall, my favorite time of year. The season’s sights and smells are exhilarating. The crunch of leaves underfoot and the smell of fireplace smoke bring a nostalgia of my grandparents’ kitchen woodstove during the holiday season. The old family homeplace is gone. However, the memories return when I’m in the woods and run across an old home foundation of a time gone by, where people lived and loved during their season. Thus, the need to focus on cultural resources when we find them. Whether it be an old cemetery or foundation, these sites can be an indicator of land use before it was a forest. If you wish to know more about identifying or protecting cultural resources, go to the N.C. Department of Natural and Cultural Resources website.

In this issue of N.C. Forest Stewardship News, we have articles on Archeological and Cultural Resources, one of the 16 Resource elements addressed in all Forest Stewardship plans, tips on tree planting, and an introduction to our new Forest Stewardship Program Assistant, Amanda “Mandy” Tallman Marty, as well as native plants for birds.

Enjoy this issue, this fall and this holiday season!

In The News

By Les Hunter

Forest Stewardship Old North State Council:

BSA is North Carolina’s 2019 Tree Farmer of the Year

At its recent annual meeting, the North Carolina Tree Farm Program named the Cherokee Scout Reservation the 2019 North Carolina Outstanding Tree Farmer of the Year. The award recognizes the Reservation’s leadership in the conservation community and its commitment to practicing and promoting sustainable forest management on their woodlands in Caswell County, N.C. The Cherokee Scout Reservation is part of the Old North State Council, Boy Scouts of America (BSA).

Cherokee Boy Scout Reservation is a 1,600-acre Boy Scout Camp. For nearly 20 years, the council was focused on developing an overnight summer camp and a 26-acre swimming lake on about 200-acres. The council hired a consulting forester, David Halley of True North Forest Management Service, to prepare a comprehensive forest management plan and timeline of activities. When they

Photo, from left: Scout Executive/CEO Ed Martin, N.C. Tree Farm Program President Rett Davis and Camp Ranger Marvin Preslar

Continued on Page 3
Places, Front Page Continued...

Forest Stewardship Resource Elements (Cont’d...)

Information concerning Archeological, Cultural, and Historic sites in North Carolina can be found by visiting the N.C. Cultural Resources website at https://www.ncdcr.gov. A vast array of mapping resources are available at https://www.ncdcr.gov/resources/mapping to research or verify the location of special sites. Landowners may be able to identify the significance of the location of their property in proximity to historical occurrences or verify any local landmarks, study sites, or locations of historical resources on the National Register.

Federal law does not require protections of sites listed on the National Historic Register so long as no federal monies are attached to the property. However, there may be state or local preservation laws that could be in place to protect the site.

Landowners and designated representatives may wish to contact local historical societies and museums for additional information on sites of local significance and any preservation laws that may apply.

Old cemeteries are considered to be culturally significant and should be protected as a special site.

In The News, Continued...

BSA is N.C.’s 2019 Tree Farmer of the Year (Cont’d)

received their Forest Stewardship Plan in 2006, the Cherokee Scout Reservation began actively managing its woodlands. It was updated in 2018 after much of the plan was already accomplished.

When the camp took ownership of the property, the forest they inherited was a product of high grading, diameter-limit cutting or select cutting. This practice had reduced the forest health and value over time by taking the best trees and leaving the rest. A coordinated effort of forest improvement harvests and management activities began to enhance and restore the quality and vigor of the forest.

Today, the camp property serves as an excellent example of how to practice forest stewardship. Audubon North Carolina has recognized the BSA Reservation for its efforts in creating and enhancing songbird habitat, and the Forest Stewards Guild has designated it a Model Forest.

Congratulations!
In September 2019, Amanda “Mandy” Tallman Marty joined the N.C. Forest Service as the Forest Stewardship Assistant. Here is a brief interview with Mandy detailing her journey to become part of the Forest Stewardship Team.

**FSP News:** Mandy, what is your history with stewardship?

**ATM:** I grew up in a rural area in northeast Ohio and spent much of my childhood exploring the forests and streams near our home and my grandmother’s home. That time really fostered my love for the outdoors and my passion for conservation. As an adult, I found myself wanting to revisit that passion in a meaningful way. In 2017, I completed training held by the Ohio State University extension office to become an Ohio Certified Volunteer Naturalist. After completing this training, and in my spare time, I focused on volunteering for the Cleveland Metroparks and Cuyahoga Valley National Park. I mostly worked on projects involving stewardship, restoration, and citizen science. Through Cleveland Metroparks, I also became a Certified Watershed Steward by participating in some stream restoration courses and watershed restoration projects. These projects were incredibly rewarding to be a part of, and they increased my desire to become even more involved with conservation efforts.

**FSP News:** How about your work experience?

**ATM:** I came to the N.C. Forest Service after working in the private sector for my entire career. I’ve spent the last 16 years working in the beer and wine industry. Most recently, I worked for a beer distributor in Ohio and Indiana that focused on American and imported craft beers, along with some ciders, meads and wine. My role as a Key Accounts Manager was to work with corporate beer buyers for large retail chains and grocery stores. I helped them manage their beer selections and programs, as well as work with our field team to help execute those programs. Before that, I worked as a Regional Beverage Coordinator for a national retail chain. In that role, I was a beer buyer and assistant wine buyer for a territory of four states. These roles have given me a lot of experience in managing and assisting with multiple types of programs, working with a large variety of people in service-focused roles, and managing a large workload in a fast-paced industry.

**FSP News:** Working in the public sector for the N.C. Forest Service must be a big change from the beer industry. What prompted the change?

**ATM:** While I loved working in the beer industry, I really wanted to find ways to incorporate

Continued on Page 5
People, Continued...

my passion for conservation, my drive to help others, and my desire to learn new skills along a new career path. We relocated to North Carolina from Cleveland, Ohio, this past spring. It was the perfect opportunity to take what I had learned through my volunteering and naturalist/stewardship training along with the skills I had developed in the private sector and use those to forge a new path for myself. I’m thrilled for this opportunity with the N.C. Forest Service and the Stewardship Program, and I am excited to help landowners in meaningful ways!

FSP News: Anything else the folks might want to know about you?

ATM: In addition to my outdoorsy interests like kayaking and hiking, I really love making things and being creative! Whether it is cooking, photography, woodburning, sewing or other crafty pursuits, I really enjoy the creative process and the satisfaction that comes from making something new. My husband and I also really enjoy playing tabletop games, both together and with friends. In my free time, I volunteer at the Duke Lemur Center as a technician assistant to continue giving back to the community and the world around me.

FSP News: Thanks Mandy! How can folks contact you?

ATM: I can be contacted with questions or comments at:

Mandy Tallman Marty
NCDA & CS, N.C. Forest Service
1616 Mail Service Center
Raleigh, NC 27699-1616
Office: 919-857-4823

Events: 2019 Annual Forest Stewardship Meeting

On Saturday, Aug. 3, 2019, the NCFS held its 2019 North Carolina Stewardship Forestry Recognitions Program and Annual Awards Meeting in Pittsboro. A landowner from each of the three regions in North Carolina, an NCFS forester and one partner organization were recognized as this year’s Outstanding Woodland Stewards (OWLS) for their stewardship efforts to enhance the forests they manage for wildlife, soil and water quality, timber production, recreational opportunities and natural beauty.

Meeting participants had the opportunity to speak with natural resources professionals about becoming good stewards of their land. Eighty-five forest landowners and natural resource professionals attended this meeting.

The North Carolina Forest Stewardship Program is a cooperative effort to help private landowners, through careful planning and plan implementation, realize their objectives of managing their forests for the benefits they desire.
Audubon Plantings for Birds

Native plants play an important role in providing the food that birds need to survive and thrive in a way that non-native plants do not. North Carolina, with its diverse geography, is home to thousands of native plant species! Our natural wildlife, including birds, have adapted to the resources provided by North Carolina’s native plant population. These plants and trees are home for our birds.

Did you know a pair of Carolina Chickadees needs nearly 10,000 caterpillars to raise a single nest full of babies? Almost all land birds require insects to feed their young. Even seed-eating birds often must feed their babies insects to ensure their survival. Insects cannot adapt to eating non-native plants. Fewer native plants means fewer insects, which in turn means fewer bird babies growing to adulthood.

Because of this, Audubon has developed valuable shareable resources about native plants. We know how busy life can be, so we’ve made it easy for you to learn more. Just go to the website, https://www.audubon.org/native-plants, and type in your ZIP code to see which native plants would thrive around you. In North Carolina, we have even developed a list of nurseries participating in Audubon North Carolina’s Bird-Friendly Native Plants programming. There are great places with knowledgeable staff to help answer all you native plant questions! Find a participating nursery near you by visiting https://nc.audubon.org/conservation/bird-friendly-communities/bird-friendly-native-plants.

North Carolina has shown a great commitment to communicating about the benefits that native plants provide from the mountains to the coast. Every October, North Carolinians celebrate Native Plants Week, and earlier this year, a new law was passed that will make native plants the standard choice for planting along North Carolina roadways.

Whether you live in the country or in the city... in the woods or on a farm, choosing native plants for your land is a simple step you can take to help sustain the plants intended to grow in our region and the wildlife that depend on them.

Find more information about Audubon plantings for birds at https://nc.audubon.org/sites/default/files/piedmont_plants_final.pdf
Planting tree seedlings is often thought of as a simple undertaking—dig a hole, insert the tree and watch it grow! For the most part, that is true, and survival of newly planted loblolly pine seedlings is usually high. However, the time after a seedling is planted is stressful. It may take over a week for the newly planted seedling to adapt to its new environment and to be able to establish contact between its roots and the soil. The better the conditions, the less the seedlings will struggle to adapt to that new environment. In the south, rainfall and soil moisture are typically adequate, but occasionally Mother Nature throws us a curve and a spring drought or severe freeze occurs, causing seedlings to die. Sometimes, in the handling and planting of seedlings, human error damages them. If a few simple planting tips are followed, survival problems can be avoided or at least reduced.

**Tip #1: Properly Prepare the Site**

Planting success begins by alleviating site conditions that reduce seedling survival. Site preparation treatments are implemented to improve seedling survival and early growth by controlling undesirable competitive vegetation or, in woody soil situations, by improving root zone conditions by forming a raised bed. Competition control of unwanted vegetation is the single most important activity you can do to ensure success! The effectiveness and lower costs of herbicide treatments make it the preferred site preparation choice for controlling competition. However, no matter what site preparation practice is needed for your forest, money spent on site preparation is money well spent.

**Tip #2: Order Seedlings with the Best Genetics**

One of the best ways to make the most of your forestry investment is to plant the best trees available. Forest nurseries have made a lot of headway to improve growth, disease resistance, and straightness for the seedlings they grow. The result is trees that grow fast and produce more wood. The improved seedlings available today may increase your wood production as much as 30%! Take advantage of these genetic gains by purchasing the best pine seedlings available.

**Tip #3: Hire Reputable Tree Planters**

Seedlings, especially their roots, are fragile after they are lifted from the nursery bed. They are easily damaged if mishandled by a tree planter. Some things a good tree planter does to help your seedlings survive are:

- **Provide good supervision during planting to catch and correct poor planting practices**
- **Handle seedlings with care during storage and shipping to protect them from getting too hot or too cold**
- **Plant seedlings as soon as they are picked up from the nursery**
- **Discard small, poor quality seedlings that are below acceptable standards** (Large, healthy looking seedlings with a fibrous root system and sizable root collar diameter generally survive better than small seedlings.)

A list of private Forestry Service Providers can be found at [https://www.ncforestservice.gov/Managing_your_forest/contract_services.htm](https://www.ncforestservice.gov/Managing_your_forest/contract_services.htm)

**Pictured: Tree planter planting pine seedlings**
### Tips to Ensure you Planting Job is Successful

**Tip #4: Plant Your Seedlings When Soil Moisture is High**

Seedling survival depends on it being able to take up moisture quickly after planting. Therefore, it is best not to plant seedlings when the soil is dry. Research suggests that tree planting should be delayed until at least 1 inch of rain has fallen in the past three days. In N.C., a good time to plant is from December through February when young trees are largely inactive and soil moisture is high.

**Tip #5: Plant Your Seedlings Early**

Landowners can take advantage of increased survival and early growth by planting their seedlings in the late fall. Numerous studies show that the root system of southern yellow pines grow significantly in the fall and early winter before soil temperatures get too low. This allows the roots to be established and ready to start shoot growth in the spring, ahead of the competition. Not only will the survival of the seedling be better, but the seedling will grow taller that first year and be better able to withstand possible adverse weather conditions. If planting bareroot seedlings, the seedlings must be planted within one to two days after lifting for best survival. If you decide to plant in late fall, containerized seedlings are the best choice because the potting medium helps protect root systems from damage as a result of poor handling and allows the newly planted seedling to take up moisture and nutrients quickly.

**Tip #6: Don’t Plant if Extreme Weather is Predicted**

Weather conditions and soil moisture must be in safe limits the day of planting. During planting, the roots of bareroot seedlings are unavoidably exposed. This brief exposure can cause moisture to be lost, especially on hot, windy days, with low humidity. Do not plant if the temperature is above 85 degrees F, the relative humidity is below 30%, and winds are greater than 15 miles per hour. Do not plant if extremely cold temperatures that may freeze the ground for several days are forecast. Prolonged and extreme cold conditions cause foliage winter burn and can cause freeze damage to the stems. Extended days of freezing temperatures or hot dry conditions right after planting are conditions that kill seedlings.

- Stop planting when severe weather conditions (extreme heat or cold) are forecast
- Do not plant late in the season. Planting in March can be risky and should be minimized or avoided

**Tip #7: Plant Loblolly Pine Seedlings Deep**

Loblolly pine seedlings are more likely to survive if roots are planted 2-5 inches deeper than the seedlings were grown in the nursery bed. The top few inches of the soil can dry out quickly. By planting the seedlings deep, the roots are placed closer to the moisture found deeper in the soil profile. Planting deeper also reduces seedling exposure and water loss due to transpiration. Seedling stems and sensitive root tissue are damaged from extreme cold snaps. Deep planting protects seedlings from injury during the
sudden hard freezes that commonly occur in January. Sites with standing water are good examples where deep planting may not help survival. In poorly drained or wet sites, it is better if the roots are planted at the depth at which they were grown in the nursery. Regardless, never plant seedlings with their roots exposed.

So, What’s the Bottom Line?
A pine seedling is a living plant, and it can be easily damaged if not handled and planted properly. In addition, too much competition or too little soil moisture greatly affects seedling survival and growth. If the tree planter doesn’t do his job correctly, all your efforts to ensure everything is just right and ready for planting can be lost. There are several good practices landowners and tree planters must do in order to ensure a successful planting project. By following these practices, you will improve seedling survival, increase height and diameter growth, and get the most out of your reforestation investment.

Contact an NCFS Nursery for Purchasing Seedlings!
The NCFS has two tree nurseries that service all of North Carolina. The Claridge Nursery, located in Goldsboro, is home to the NCFS Tree Improvement Program and produces over 50 different species of conifers and hardwoods annually in both bareroot and containerized form. The Linville River Nursery specializes in Christmas tree seedlings, producing conifer species. Seedlings can be ordered directly from the nursery by calling 1-888-NCTREES (628-7337) or online from the online forestry store at www.buyntrees.com.

Seedlings for reforestation are also available from other private nurseries such as IFCO and Arbogen.

Outstanding Woodland Stewards (OWLS)
Landowners who are recognized as “Outstanding Woodland Stewards” (OWLS) are actively managing their woodlands and implementing management activities as outlined in their stewardship management plans. A completed certification request form is submitted to the N.C. Forest Service on behalf of the landowner. The completed form can be submitted by NCFS staff in your county. Landowner recognition includes a certificate, a forest stewardship sign (with a post), and a birdhouse to be erected on the property to show commitment to forest stewardship and to promote the N.C. Forest Stewardship Program within the landowner’s community. Thank you to all Outstanding Woodland Stewards! Congratulations to our most recent OWLS!

If you are interested in learning more about participating in the N.C. Forest Stewardship Program or becoming recognized as an OWLS, please contact your county ranger!
Outstanding Woodland Stewards (OWLS)
July 1, 2019 – November 6, 2019

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Upcoming Events:

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<td>Managing Your Land and Legacy: Opportunities and Options</td>
<td>Jan. 24, 2020</td>
<td>Swan Quarter, NC</td>
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<td>Environmental Education for K-8 Educators; Project Learning Tree</td>
<td>Jan. 25, 2020</td>
<td>Sanford, NC</td>
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<td>Webinar — Woodland Stewards Webinar Series: A Regional Extension Program for Landowners</td>
<td>Feb. 6, 13, 20, and 27, 2020</td>
<td>Forestrywebinars.net</td>
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<td>Investigating Your Environment Workshop</td>
<td>July 12-17, 2020</td>
<td>Crossnore, NC</td>
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From all of us at the N.C. Forest Service, we wish you and your families a safe and happy holiday season!

N.C. Forest Stewardship News prepared by Jason Wade, NCFS Forest Stewardship Technician