



Prescribed Burn Success at the Wildland Urban Interface in Athens, Georgia

The National Cohesive Wildland Fire Management Strategy is a national collaborative effort to bring a broad cross-section of stakeholders together to address wildland fire management challenges. The Strategy directs wildland fire planning activities and has three primary goals: restore and maintain landscapes, develop Fire-Adapted Communities, and improve wildfire response.

Activity	Impact
# acres prescribed burned	30
Cost of burn (direct expenses)	\$1000
Value in-kind services and "stand-by" personnel	\$30,000

Managed Forest Project

Sandy Creek Nature Center, located 2 miles from downtown Athens, Georgia, has been a popular environmental education center and natural destination since the 1970s. The Center's 225 acre property contains 4 miles of hiking trails through Piedmont forests and wetlands, providing a welcome reprieve to urban life. Additionally, an education & visitor center onsite contains interactive natural history exhibits (focused on the Piedmont landscape), a resource library, and native animals for educational purposes. Sandy Creek's primary objectives are to educate the public on the natural environment, manage the health of the property's landscape, and use the landscape as a living laboratory.

In the 1980s, Sandy Creek Nature Center began to collaborate with forestry, ecology, and natural resource experts to explore how best to manage the forest and fields on the Nature Center property. Over the decades, management ideas expanded to include both traditional forestry treatments (ex., clearcut) and ecological management. Combining these ideas into a

comprehensive land management plan would achieve several environmental education objectives, including:

- enhancement of wildlife habitat and biodiversity
- minimization or eradication of invasive species
- income generation from timber harvest while promoting multiple land uses
- use of the project as an "outdoor classroom" component to the Nature Center's interpretive program

As an environmental education center, Sandy Creek is well-positioned to teach the public about the ecological and economic benefits of forest management. For example, "saving the forests" is not always achieved by "leaving it alone", but instead it is about well-planned and researched management choices that can benefit forest health and emulate natural processes. Sandy Creek uses the on-site demonstration forest to teach the public that several traditional forestry practices actually benefit wildlife and habitat.

Success stories highlight regional wildland fire accomplishments that support implementation of the National Cohesive Wildland Fire Management Strategy in the Southeast. The stories demonstrate how the Southeast is improving its "fire resiliency" through technology, education and outreach, forest management, collaboration, and more. Success stories also serve as a model for other communities to follow.

With partner input, a “managed forest project” was conceived and a detailed proposal was developed. The proposal was submitted to the Athens-Clarke County Mayor and County Commissioners and was overwhelmingly supported by elected officials. The long-term project entails developing one hardwood and 4 pine tracts to demonstrate various stages of natural forest succession, biodiversity, and wildlife habitat. Timber on the proposed tracts will be harvested, the tracts will then be planted or allowed to naturally regenerate, and prescribed fire will be used through all stages (site preparation and understory management). Fundraising efforts for the project by Sandy Creek Nature Center, Inc. exceeded \$67,000, enabling the project to be self-funded and not dependent on city-county funds. In addition to forest management and educational objectives, the project will demonstrate:

- sustainable forest management practices to small landowners.
- the value of forestry techniques in urban land management and their potential use on other city-county properties.
- the importance of prescribed fire in forest health.
- the importance of Firewise Principles in land management.
- wildland fire training to local safety organizations (fire and police departments-unified command concept).

Prescribed Fire at Sandy Creek

One of the first steps of the managed forest project was a prescribed burn on 30 acres, encompassing all 5 tracts. Knowing that a prescribed fire at a popular destination for environmental awareness and also one so close to the city center could be problematic, Sandy Creek carried out a thorough outreach and educational campaign preceding the burn. Outreach activities included several news articles and radio announcements, mention in the Center’s newsletter and on the Athens-Clarke County website, a public forum, a “Forest Fun Day” open house, presentations to elected officials and public safety officials, and use of social media. Also, numerous signs were placed along trails describing the importance and purpose of the managed forest project.

After waiting 4 months for correct weather conditions, the burn finally occurred mid-February 2016. The property had not been burned in over 50 years, so a primary objective was to generate a cool burn that reduced fire fuel and re-introduced fire into the system. In addition, the combustion of understory vegetation generated ash that provides valuable plant nutrients, promoting a rapid “greening” of the burned area. Seeing a site re-green after a fire provides a powerful demonstration to the public concerning the ecological benefits of fire.

On the day of the burn, social media and news articles were used to educate the public about the event; road signs were placed outside the park alerting drivers to smoke; and a drone was used to film the prescribed fire. During the summer and fall of 2015, the UGA Center for Geospatial Research worked with Sandy Creek Nature Center and Athens-Clarke County to obtain permission to use a drone for aerial footage of the prescribed fire. On the day of the burn, a live video feed



Sandy Creek Nature Center. Credit: Laura Costa, SREF



Trail sign explaining how and why prescribed burning is used at the center. Credit: J. Michael Wharton



Day of the prescribed burn. Credit: Laura Costa, SREF



Prescribed fire reducing fuels. Credit: Laura Costa, SREF

from the drone was projected into the A-CC Police Mobile Command Center which permitted emergency personnel to view the fire in real time from above and demonstrated the utility of such technology in emergency services. The drone also monitored the fire line, tracked the fire team on the ground, and was able to monitor whether Sandy Creek burn objectives were being met. The only challenge reported in using the drone was that smoke at times obscured visibility of the aircraft by the operator. Having additional support staff, however, enabled the location of the drone to be constantly monitored while in use even under these unusual conditions. Drone footage of the prescribed fire was made by the UGA Center for Geospatial Research, Southeast Drone Services, and FlyWorx.



Aerial drone footage of the burn. Credit: Kelsey Norris

In the months following the burn, kiosks will be placed at primary trail heads and throughout the park detailing how the prescribed fire will have positive influences on the forest ecosystem by increasing biodiversity and abundance of many plant and animal species. In subsequent years, one to two tracts will be burned every year. Though the entire project is currently only funded for 2 years, the Center's non-profit partner, Sandy Creek Nature Center, Inc. continues to support the project. The managed forest project is projected to be a long-term management effort. The Sandy Creek prescribed burn is an excellent example of a wildland urban interface project that with sufficient outreach and education, achieves forest management objectives while educating the public on the importance of forest management.



Prescribed fire burning a meadow at the center. Credit: Scott Collins

Additional Resources:

Sandy Creek Nature Center: <https://www.athensclarkecounty.com/Facilities/Facility/Details/16>

Press releases: <http://onlineathens.com/breaking-news/2016-02-19/controlled-burn-taking-place-sandy-creek-nature-center>
http://onlineathens.com/mobile/2015-09-29/burn-planned-sandy-creek-nature-center-forest-management-project-gets-underway?utm_source=Recommendation_Widget&utm_medium=desktop&utm_campaign=qrec&utm_content=image

Firewise Communities: <http://www.firewise.org/>

Link to drone video footage: <https://www.youtube.com/watch?v=MziUswu-5Vk&feature=youtu.be>

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Partners: Sandy Creek Nature Center-Athens-Clarke County Department of Leisure Services, Sandy Creek Nature Center, Inc., USDA Forest Service, Georgia Forestry Commission, Department of Natural Resources, Georgia Department of Transportation, ACC Transportation and Public Works Department, ACC Police Department, ACC Fire Department, and ACC Emergency Management Office, The University of Georgia Warnell School of Forestry and Natural Resources, UGA Center for Geospatial Research, Southeast Drone Services, FlyWorx



Southern Regional
Extension Forestry

