# NORTH CAROLINA PRESCRIBED FIRE COUNCIL 2013-2018 STRATEGIC PLAN



### **FOREWORD**

#### IMPORTANCE OF PRESCRIBED FIRE

Thousands of years of lightning strikes and burning by Native Americans have shaped North Carolina's natural ecosystems which require periodic fire for their survival. Today prescribed fire or controlled burning reduces the naturally occurring buildup of vegetative fuels, thereby reducing the risk and severity of wildfires and lessening the loss of life and property. Prescribed burning on forestlands helps to prepare sites for replanting and natural seeding, control insects and diseases, and increase productivity.

Prescribed burning is essential to the perpetuation, restoration, and management of many plant and animal communities. Fire consumes plant matter releasing nutrients which increase the growth and yield of plants that provide forage and cover. Prescribed burning benefits game, non-game, and endangered species by creating and enhancing habitat.

#### PRESCRIBED FIRE IN NORTH CAROLINA

Using factors such as topography, historical records, climate, plant communities, fire scars, and soils, scientists have mapped out presettlement fire regimes for the southeastern United States. They indicate that the majority of North Carolina burned every 4-6 years with the most frequent fires of 1-3 years occurring in the Sandhills and southeastern part of the state. There are areas in the northeast and in the mountains that were burned every 7-12 years or greater than 12 years. While the frequencies are variable, the fact is that most of our state's ecosystems evolved with fire and burned with some regularity until the mid 1900's.

The North Carolina Forest Service's 2010 Forest Assessment reports the annual acreage of prescribed burns conducted for hazard reduction, wildlife, or silviculture purposes to be 118,779 acres. Many believe that the number is actually much greater. Better communication and data tracking will produce more precise numbers in the near future.

The forest products industry is the largest business in the state, contributing approximately \$30 billion annually to the state's economy and providing over 100,000 jobs for North Carolinians. Over 60 percent of North Carolina's land is commercial forestland, capable of producing marketable timber for more than 300,000 landowners. Healthy and productive forests need fire.





Table Mountain Pines need fire to open their cones & disperse their seeds, making them a fire dependant species.

# CHALLENGES FOR PRESCRIBED FIRE IN NORTH CAROLINA

There are many challenges to conducting prescribed burns. The US Census Bureau projects that North Carolina will grow in population from over 9 million in 2010 to over 12 million in 2030. Given our current population and projected growth, many land management activities will become more difficult to implement. This is especially true of the ability to conduct prescribed burns due to air quality, smoke management concerns, and increased residential development. North Carolina ranks higher than any other state in areas where wildland vegetation and homes meet. This wildland urban interface totals



A drip torch is used to set prescribed burns.

more than 5.5 million acres. With greater road density and traffic comes greater risks to travelers from smoke. For private contractors, obtaining insurance and overcoming liability concerns has become increasingly difficult. Many public agencies are also limited, not by insurance, but rather by time, budgets, weather, and manpower.

# HISTORY & MISSION OF THE NORTH CAROLINA PRESCRIBED FIRE COUNCIL

The Council began with periodic meetings of representatives of a few natural resource agencies and organizations in 2002. The informal group named itself the Prescribed Fire Team and its original focus was to accomplish more burning on private lands. In 2006 The North Carolina Prescribed Fire Council, patterned after existing councils in other states, was more formally established with a charter, bylaws, mission statement, and an organizational structure. In 2010 the Council incorporated and became nonprofit exempt from federal income tax under section 501(c)(3) of the IRS code. The Council is qualified to receive tax deductible bequests, charitable contributions and gifts. The strength of the Council has always been in its diversity including leadership from multiple organizations, agencies, private consultants, and landowners.

The Council desires to promote and advocate for prescribed fire as well as to improve our professional expertise as prescribed burners. The Council has identified public education as the area of greatest need and most opportunity for improvement. Through education and outreach about the importance of prescribed fire, we hope to gain better public understanding and acceptance regarding the practice of prescribed burning. The Council has no regulatory authority, but as a group with conceptual and practical expertise, we can serve as liaisons and educators promoting prescribed fire.



# OUR VISION WHAT THIS DOCUMENT SHARES

Our vision for the next five years is one that protects the right to burn, encourages the safe use of prescribed fire, and promotes the public's understanding of prescribed fire.

This Strategic Plan provides a clear and concise direction for the Council and lays the foundation for our future. Each goal helps provide a focus for the executive board, committees, the Council membership, and the prescribed fire community as a whole. Specific objectives under each goal will help to focus limited funds on priority areas. Council members and the public can see what priority areas are being targeted.



#### GOALS & OBJECTIVES FOR ATTAINING THE VISION

Each goal represents a benchmark for which to strive by the year 2018. Objectives for each goal reflect more specific work to be accomplished in the next five years in order to make progress toward that goal. Each goal has an assigned committee, within the Council, that will take the lead toward achieving the objectives. Committees

will give periodic progress reports to the Council Executive Board. Adjustments or amendments to the plan can be made annually. The Council President will give an update to the membership at each annual meeting.



### SENSE OF URGENCY

Fire is a natural part of North Carolina's ecosystem. Low intensity fire historically occurred across the state. These periodic fires reduce forest fuels, reduce insect populations, open up areas for wildlife, and add nutrients to the soil. Some ecosystems, such as longleaf pine forests, could burn as frequently as every two to three years, while other places would burn less frequently. However, decades of fire suppression activities have allowed many areas in North Carolina to become overgrown or change composition, forest fuels to build up, invasive species to take hold, and created unhealthy conditions that can choke out natural ecosystems and increase the likelihood of large and potentially devastating wildfires.

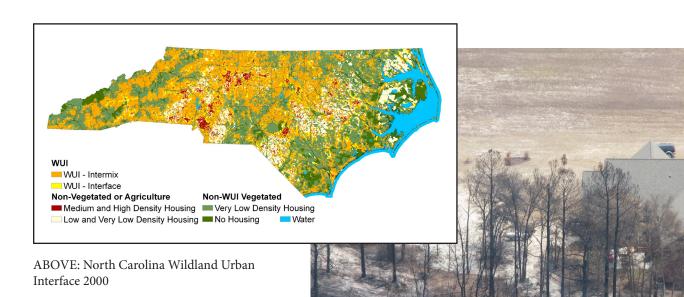
The effects of fire suppression are compounded by an increase in population across the state since 2000. According the U.S. Census Bureau, the population of North Carolina increased by 18.5 percent between 2000 and 2010, and is expected

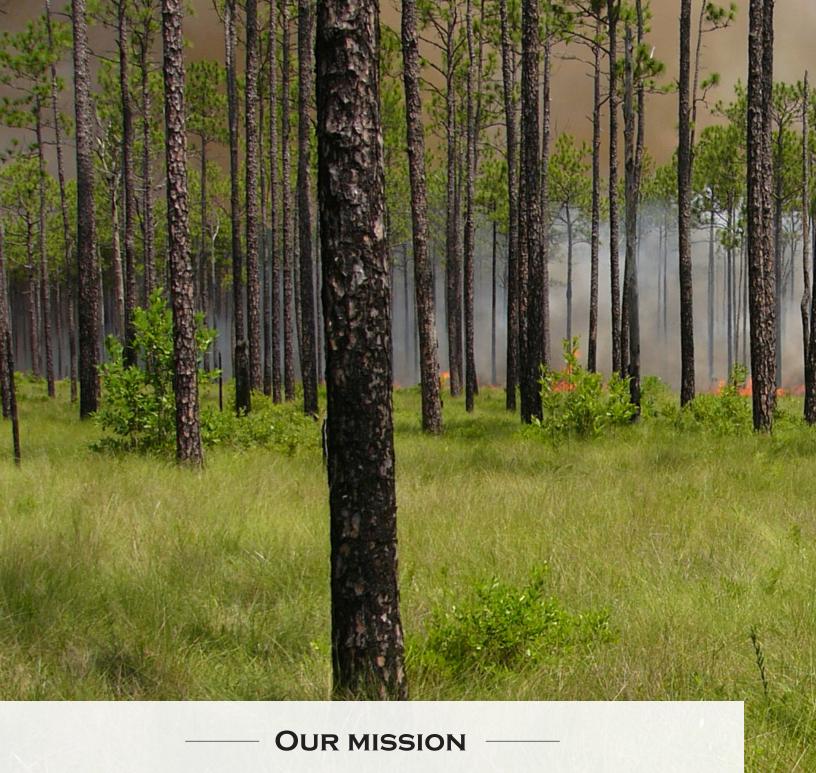
RIGHT: The 2011 Simmons Road fire, which was ignited by lightning, destroyed 3 homes

and threatened dozens more.

to rise as we move into the future. This increase in population has led to a higher number of people moving into the wildland urban interface (WUI). In fact, according to a 2000 study North Carolina has the largest amount of land area that falls inside WUI zones, and is 5th in the nation for the number of homes (41%) in the WUI. It's unlikely these statistics have changed much in 12 years or will change in the future.

With the increase in population in the WUI and the likelihood of catastrophic fires that will destroy homes, property, and possibly lives, prescribed fire has become an increasingly important tool in managing the forested areas. The use of prescribed fire mimics the natural low intensity fire that was once prevalent across the state and the importance of its use in WUI areas has also increased. These low intensity controlled burns help to protect homes and lives by reducing the buildup of forest fuels while simultaneously improving the health of the forest.





OUR MISSION

IS TO FOSTER COOPERATION AMONG ALL
PARTIES IN NORTH CAROLINA WITH AN
INTEREST OR STAKE IN PRESCRIBED FIRE.



# GOALS & OBJECTIVES FOR ACHIEVING OUR VISION



INCREASE TRAINING AND EMPHASIZE SAFETY TO PROMOTE BEST MANAGEMENT PRACTICES AND MAINTAIN THE CREDIBILITY AND PROFESSIONALISM OF OUR FIRE PRACTITIONERS.

(Training & Safety / Implementation committees)

#### A. OBJECTIVE:

Build relationships with organizations such as North Carolina State University Continuing Forest Educations program to deliver annual programs targeted at foresters and other burners to provide training in best management practices, lessons learned, and refreshers to reach about 100 fire practitioners a year. Provide information on lessons learned via a web link to Lessons Learned Center, Southern Fire Exchange, and Consortium for Appalachian Fire Managers and Scientists. Share lessons learned by North Carolina burners through articles in Council newsletter reaching 150 or more practitioners and landowners quarterly.

#### B. OBJECTIVE:

Develop and implement a standard code of ethics for all prescribed fire practitioners

#### C. OBJECTIVE:

Initiate a standard prescribed fire planning and execution process, and contingency planning (to include BMPs for fire breaks, smoke, etc).

#### D. OBJECTIVE:

Support and assist with administering, instructing, and hosting basic and intermediate prescribed fire, fire weather and fire behavior courses. For example:

- S130 Firefighting Training (Annually)
- S190 Introduction to Wildland Fire Behavior (Annually)
- S290 Intermediate Wildland Fire Behavior training (Annually)
- Prescribed Burn School (Certified Burner) (Annually)
- Smoke Management Courses
- Public Speaking Information Officer
- Annual Refresher Training
- S-234 Ignition Specialist Training
- Administer test to determine skills attainment for course credit
- Landowner Workshops
- Clearing House of Training Courses Website & Newsletter
- Certified Burner Continuing Education Requirements (Policy)





# IMPLEMENT A TARGETED COMMUNICATION AND EDUCATION CAMPAIGN THAT INCREASES PUBLIC SUPPORT, UNDERSTANDING, AND ACCEPTANCE OF PRESCRIBED FIRE IN NORTH CAROLINA.

(Education & Outreach committee)

#### A. OBJECTIVE:

Provide information on the benefits of fire to the media annually in all three regions of the state in coordination with agency Public Information Officers.

#### B. OBJECTIVE:

Develop a plan to tailor the "one message many voices" campaign to North Carolina in coordination with agency Public Information Officers.

#### C. OBJECTIVE:

Manage and coordinate Prescribed Fire Awareness Week activities. Target groups with specific and coordinated messages.

#### D. OBJECTIVE:

Develop outreach materials that teach the history and importance of prescribed fire and facts about wildfire in North Carolina. (Good Fire vs Bad Fire, fire heritage)

#### E. OBJECTIVE:

Work with colleges and universities to develop fire ecology, fire science, and fire use curricula.







## ESTABLISH PARTNERSHIPS TO PROMOTE THE MISSION AND VISION OF THE COUNCIL.

(Education & Outreach / Membership committees)

#### A. OBJECTIVE:

Visit, make presentations, or provide information for newsletters to one group each quarter. (fire marshals, volunteer fire department associations, Association of Consulting Foresters, Society of American Foresters, etc.) Develop travelling speaker's kit(s) about the mission and vision of the Council.

#### B. OBJECTIVE:

Develop relationships with non-traditional groups to foster mutual benefits and cooperation. (NC APA - Planners, North Carolina Association of Environmental Professionals, North Carolina Department of Transportation, Power Companies, Voluntary Ag Districts, Environmental Protection Agency, and other air regulatory agencies)





# ACQUIRE RESOURCES TO PROMOTE, SUPPORT, AND SUSTAIN THE MISSION AND GOALS OF THE COUNCIL.

(Development committee)

#### A. OBJECTIVE:

Develop and maintain an annual budget to support basic Council operations.

#### **B. OBJECTIVE:**

Identify and pursue sources of funding for implementation of the Council's strategic plan.

#### C. OBJECTIVE:

Identify funding sources for fire operations and share those sources regularly with Council members through quarterly newsletters and website.

# TAKE A STRATEGIC AND PROACTIVE ROLE IN POLICIES THAT POSITIVELY IMPACT PRESCRIBED FIRE IN NORTH CAROLINA.

(Policy committee)

#### A. OBJECTIVE:

Work cooperatively with North Carolina Forest Service and Division of Air Quality on revisions of burn laws and smoke management plans. Advocate for burning under best management practices. Advocate for policies that allow incident commanders to manage wildfires to burn for resource benefit when this can be done with minimal negative impacts to people. Explore the addition of continuing education criteria for certified burners.

#### B. OBJECTIVE:

Identify policy opportunities and barriers to the use of prescribed fire on public and private lands. Explore the expansion of or highlight the use of prescribed fire in the Voluntary Agriculture Districts.

#### C. OBJECTIVE:

Develop a feedback mechanism from practitioners and managers to evaluate existing prescribed fire policy.

#### D. OBJECTIVE:

Open a dialogue between the Council and the North Carolina Fire Marshals Association to identify issues of concern and develop collaborative solutions.

#### E. OBJECTIVE:

Examine protective covenants and easements used by agencies (e.g., Clean Water Management Trust Fund, NC Ecosystem Enhancement Program, Parks & Recreation Trust Fund, etc.) to identify and address prohibitions and limitations on the use of prescribed fire as a management tool.





### PROMOTE PRESCRIBED FIRE AS A HIGH PRIORITY FOR PUBLIC AND PRIVATE LANDS IN NORTH CAROLINA.

(Implementation / Policy / Education & Outreach committees)

#### A. OBJECTIVE:

Establish and lead the annual Prescribed Fire Awareness Season to include a Governor's proclamation, outreach events, and positive media coverage in all the regions of the state.

#### B. OBJECTIVE:

Reach out to state legislators to ensure their understanding and support of the role of fire using outreach events, meetings, etc. Invite legislators to events during Prescribed Fire Awareness Season. Encourage the increase of state funds directed to the use of prescribed fire.

#### c. OBJECTIVE:

Encourage agencies to provide sufficient and continuous resources to hire and train new prescribed fire personnel and reflect the high priority of prescribed fire in managers' performance standards. Develop a process for Council leadership to meet annually with agency leads about the importance of prescribed burning and the critical role the agencies play in conducting prescribed burns. Support the development of interagency prescribed fire teams.

#### D. OBJECTIVE:

Develop a system to inform private landowners of available grants and cost share funding for prescribed burning.





INCREASE RESEARCH IN THE SCIENCE AND APPLICATION OF PRESCRIBED FIRE THAT WILL BENEFIT LAND MANAGERS AND LANDOWNERS.

(Implementation committee)

#### A. OBJECTIVE:

Encourage practitioners to provide input on research needs through the Joint Fire Program research request to consortia covering North Carolina, Consortium for Appalachian Fire Managers and Scientists (CAFMS), and Southern Fire Exchange (SFE).

#### **B. OBJECTIVE:**

Foster exchange of research findings among universities, scientists, and managers at the annual Council meeting, forestry education series, field trips with researchers and practitioners. Support the SFE and CAFMS to develop a list of appropriate and vital research projects.

#### C. OBJECTIVE:

Expedite the transfer of new prescribed fire technology and science to field practitioners; start a formal technology transfer program. Demonstrate and make available the latest technology to model and track smoke plumes and monitor visibility in smoke sensitive areas.



Bearded Grass Pink, a native orchid, also grows in firedependant habitats.

Promote and participate in existing discussion board/list serve for North Carolina prescribed burners to use as a place to ask questions and receive or provide answers. Also, provide links to other research data pages (SFE, CAFMS, etc). Promote research data sharing point (via Google Earth) for members to post spatial data and associated documents (SFE, CAFMS, etc.).

#### D. OBJECTIVE:

Assimilate available spatial and tabular data on past fire activity (prescribed and wild) across North Carolina. Use data to inform stakeholders, answer questions, and identify areas in need of prescribed fire.

### CONTRIBUTORS

THE NORTH CAROLINA PRESCRIBED FIRE COUNCIL WOULD LIKE TO THANK THE FOLLOWING INDIVIDUALS AND ORGANIZATIONS FOR THEIR VALUABLE INSIGHTS AND CONTRIBUTIONS:

**Andrew Bailey** 

North Carolina Forest Service

Ken Bridle

Piedmont Land Conservancy

**Margit Bucher** 

The Nature Conservancy

**Kelly Cagle** 

**US Forest Service** 

Michael Cheek

North Carolina Forest Service

**Boon Chesson** 

Montgomery County Community College

**Debbie Crane** 

The Nature Conservancy

**Chris Dawes** 

North Carolina Wildlife Resources Commission

Jim Gray

JMG Forestry Inc.

**Brian Haines** 

North Carolina Forest Service

**Jennifer Harvell** 

Freelance Graphic Designer

**Kevin Harvell** 

North Carolina Forest Service

**Mark Megalos** 

North Carolina State University

Susan Miller

US Fish & Wildlife Service

**Scott Pohlman** 

North Carolina Department of Environment and Natural Resources

**Christa Rogers** 

Mecklenburg County Parks and Recreation

JohnAnn Shearer

US Fish & Wildlife Service

**Dean Simon** 

North Carolina Wildlife Resources Commission

Cynthia VanDerWiele

Alion Science and Technology Corporation

### FOR MORE INFORMATION



North Carolina Prescribed Fire Council, Inc.

PO Box 37434

Raleigh, NC 27627

www.ncprescribed fire council.org



Fire benefits Johns River game lands

It is mid-morning as the small crew of State Forest Service and Wildlife Management employees arrive at their designated location.

Many are veteran firefighters with considerable skill and experience in fighting forest fires. In fact, many of the crew did that the day before in another location in the state.

They arrived with all the necessary gear. A large flat bed truck carries a dozer for cutting fire lines. Smaller trucks are equipped with onboard water tanks and powerful pump sprayers. All the men are dressed in bright visibly colored fire resistant clothing and hard hats.

The workers assemble for last minute instructions. Maps of the area are distributed. Walkie-talkie radios are checked. Assignments and positions are given out. It is now time to fight fire. The only problem at this point is that there is no fire, or at least not yet. These fire fighters are here to start a fire. This fire will require their expertise but only to keep it confined to a specific area as a management tool.

Outdoor fires can occur in almost any area of the country and are caused by many reasons. No one can deny the deadly and destructive consequences of some fires. The irony is that fire is a valuable tool when harnessed and controlled properly. Forest and wildlife managers have known for years that fire, when applied properly, becomes a valuable tool for conservation initiatives. The why and when for these so-called prescribed or controlled burns is almost a science in itself.

Nature and fire has worked hand in hand for centuries. While the results can be dramatic at times with loss of both plant and animal life, the results and long-term benefits are usually amazing. In fact, many plants and animals are dependent on the occasional effects of fire.

For forest and wildlife managers, the dead of winter is the fire season. According to wildlife forester and veteran fire manager Dean Simon of Lawndale, "There are many benefits to controlled burns with benefit to wildlife at the top," Simon also said that, "Several things must come together at the same time to allow for a safe and productive burn.'

Late last month, all the right conditions came together on the new Johns River Game Lands located in



Using a fire dripper, Wildlife Forester Dean Simon runs a fire line in order to start a controlled burn on game lands near the Catawba River.

Burke County, along the Catawba River. Prior scouting determined that two tracts of forest would benefit from a controlled burn. According to Simon, one of the benefits was to open up the ground by removing accumulated leaf, brush and small non-desirable tree growth. This provides for the quick growth of grasses, vines and small berry browse growth.

A second reason was the long-term benefit to a good stand of semi-mature loblolly pines. "These pines have the potential to produce some revenue back to the state and help fill a market need for the timber," Simon

Another reason would bring to light the old saying, "fight fire with fire."

"Many forests build up a dangerous accumulation of fuel if left unattended," Simon said. "By burning off this fuel under the proper conditions, we can help eliminate the potential for a much worse and uncontrol-

Many reasons exist for burning in January, February and March. The fuel or understorage is drier and more burnable. Visibility in the woods is higher. The impact is lower on new plant growth. The nesting and breeding of birds as well as

other species of wildlife is

Simon advised that only a few days during the year meet the requirements for a burn. It takes the right combination of temperature, humidity and wind conditions before the first flame hits the ground. Winds must be less than 15 miles per hour and

With proper planning and execution, the Johns River burn went off successfully. While the immediate result may look uninhabitable, by early summer, the area will come alive with green plants of all descriptions. This will provide beneficial foods to many species of birds and animals through the plants themselves and from the many insects they will pro-

All across the state, forest managers use controlled fires. The Pee Dee National Wildlife Refuge located along the Yadkin/Pee Dee River in Anson and Richmond counties annually burns around 1,000 of its 8,400 acres.

TONY ROBINSON can be reached at decoydoc@charter.net



