

Southern Fire Exchange FY21 Annual Report

Part 3 - Impacts

FY21 Southern Fire Exchange Impact and Success Story: Supporting Southeastern Prescribed Fire Councils through the COVID-19 Pandemic

Regional prescribed fire council (PFC) meetings represent valuable opportunities for the Southern Fire Exchange (SFE) to connect with the diverse fire management communities of the southeastern U.S. Since 2010, SFE has given research synthesis presentations, invited scientists, led field trips, and provided technical support, sponsorship, and booths at in-person PFC meetings across the region, reaching over 8,200 attendees. Evaluations and feedback have indicated that these SFE programs are increasing the conceptual fire science knowledge of meeting attendees and supporting the needs of regional PFCs. During the COVID-19 global pandemic, many organizations, including PFCs, struggled to find virtual ways of meeting, and consequently several of them turned to the SFE for assistance. SFE has become not only a trusted-regional source for fire science information, but also a recognized regional leader in producing fire science webinars and other online content. Capitalizing on the opportunity to continue to bring relevant fire science information to a wide audience, the SFE Leadership Team decided in FY20 and FY21 to provide regional leadership and support for PFCs as they sought to transition their meetings to virtual formats.

"SFE has really helped with "filling the gap" as far as networking and informal trainings goes during the pandemic. The virtual fire council meetings, while not ideal by any means, have been a good example of "Commitment to Resilience" in the absence of in person meetings."
- SFE Fall 2021 Survey Response

In October 2020, for example, SFE co-hosted the 2020 All Florida Prescribed Fire Council Meeting, the first joint virtual meeting of the three Florida PFCs in nearly two decades (Fig. 1). SFE provided the expertise, technology, and resources to host the virtual meeting that featured multiple presentations with fire science information, a guest presentation from acclaimed fire historian Dr. Stephen Pyne, and critical weather and climate updates for the Florida fire management community. The virtual meeting was a great success, with over 650 attendees and 900 registrations. According to the Coalition of Prescribed Fire Councils, that qualified the 2020 meeting as the most attended PFC meeting on record. The 2020 meeting fulfilled Florida Forest Service requirements for continuing education for Florida Certified Burners. Helping Florida Certified Burners meet their training requirements supports the continued use of prescribed fire across the state of Florida, as well as increasing the fire science knowledge of the Florida prescribed fire workforce.

In FY20 and FY21, SFE also provided various levels of virtual meeting support for the Georgia PFC, North Georgia PFC, Central Florida PFC, North Florida PFC, and North Carolina PFC. SFE now hosts the recordings from several of these meetings on the SFE YouTube channel, where recordings have been viewed by over 2,000 people. Collectively, the opportunities to use SFE resources, experience, and expertise to support the Southeastern PFCs during the pandemic, increases the fire science knowledge of wildland fire managers across the region, builds the capacity of key fire management partners (PFCs) in the region, and supports the broader goals of the National Cohesive Wildland Fire Management Strategy.



Figure 1: The 2020 All Florida Virtual Prescribed Fire Council Meeting was a joint virtual meeting of the three Florida prescribed fire councils and the most attended prescribed fire meeting on record.

FY21 Southern Fire Exchange Impact and Success Story: Bridging the Training Gap Through COVID-19

During the COVID-19 global pandemic, in-person meetings, conferences, events, and training opportunities disappeared almost overnight. The lack of these events impacted the wildland fire community of the Southeastern U.S., as many RT-130 refresher courses, Prescribed Fire Council meetings, and other events were cancelled. For many state-certified burners and foresters, these training opportunities were crucial sources of continuing education credit necessary to maintain their certifications and prescribed burn programs. The Southern Fire Exchange (SFE) Leadership Team recognized this regional need and quickly modified SFE program plans to rapidly increase delivery of virtual programs accessible across the region and beyond. From the spring of calendar year 2020, through the end of FY21, SFE hosted or co-hosted a record 28 new fire science webinars. These webinars had over 8,450 attendees from across the world. Most attendees, however, were fire managers and natural resource professionals from the southeastern U.S. Over that period of time, over 800 Society of American Foresters continuing education credits were awarded to participating attendees. In addition, SFE involvement with state Prescribed Fire Councils, allowed for attendees in Florida to virtually earn continuing education credits that allowed them to maintain their Florida Certified Burn Manager certifications and ultimately continue igniting prescribed fires. SFE webinars covered topics such as fire weather products, mesophication, climate change, longleaf pine fire ecology, northern bobwhite quail, and the social impacts of prescribed fire smoke, among others.

In early 2021, for example, SFE hosted a webinar and panel discussion on the impacts of the COVID-19 pandemic on southeastern U.S. prescribed fire and fire manager strategies for coordinating prescribed fire

operations during the pandemic, in collaboration with NASA, Tall Timbers Research Station, U.S. Fish and Wildlife Service, Florida Park Service, and the U.S. Air Force Wildland Fire Branch. The event, which boasted over 320 attendees, showcased new remote-sensing based research from Tall Timbers Research Station and NASA that quantified and mapped the spatial impacts of COVID-19 related restrictions on the use of prescribed fire in the southeastern U.S. A panel discussion with prescribed fire program leaders explored the impacts of the pandemic on their burn programs and the lessons that they have learned along the way.

Collectively, these efforts demonstrate the impact of SFE in increasing the conceptual fire science knowledge of southeastern U.S. fire practitioners, land managers, and landowners on a wide range of topics. They also demonstrate the ability of SFE to quickly identify regional fire science and training needs, work with key regional partners to respond to those needs, and develop a suite of programs that increase the connectivity and capacity of regional wildland fire partners and stakeholders.

"Thank you for stepping up during the COVID-19 pandemic and hosting webinars and informative sessions to keep fire managers informed and able to continue learning when field events and in-person workshops were not able to be conducted. Great Job!" - SFE Fall 2021 Survey Response

"Very high quality webinar and very professionally produced! Please continue these, the dialogue is valuable to our agency and the fire community." - SFE 2021 Webinar Evaluation Response

"SFE is a great resource for NIPF practitioners. This webinar was very informative and well done." - SFE 2021 Webinar Evaluation Response

FY21 Southern Fire Exchange Impact and Success Story: Southeast Fire Map Collaboration

The Southern Fire Exchange (SFE) collaborated with Tall Timbers Research Station, The Longleaf Alliance, the U.S. Endowment for Forestry and Communities, and the USDA Natural Resource Conservation Service (NRCS) in the 2020-2021 Southeast Fire Map (SE FireMap) Scoping Project. The Southeast Fire Map is a collaborative endeavor to create a seamless, region-wide prescribed fire occurrence map for the Southeastern U.S. Through our needs assessments and feedback from our Advisory Board, the Southern Fire Exchange has long recognized the need for technology to map and track prescribed fire use across the region. Understanding the amount of prescribed fire across the Southeast is important for assessing prescribed fire impacts on regional air quality, assessing regional wildfire risk, and planning for ecosystem restoration and management. In the past, the SFE Leadership Team submitted this regional fire science and technology need to the Joint Fire Science Program to increase awareness of the issue.

In 2019, Tall Timbers Research Station was awarded a grant to facilitate the Southeast FireMap scoping phase, which in partnership with a coordinator at The Longleaf Alliance, would involve a series of virtual meetings with the Southeast FireMap Technical Oversight Team comprised of national fire mapping experts, regional prescribed fire leaders, and potential end-users of the final Southeast FireMap. Early in

the planning process for the scoping phase, Tall Timbers reached out to the SFE for support in coordinating and hosting the scoping phase meetings virtually. Through a collaborative partnership, from late FY20 to early FY21, SFE co-hosted and coordinated three Southeast FireMap virtual scoping phase meetings that featured technical fire mapping presentations from professionals at LANDFIRE, NatureServe, U.S. Geological Survey, and Colorado State University. The project ultimately concluded with a SFE hosted webinar with Tall Timbers Research Station, the U.S. Geological Survey, the Longleaf Alliance, and the USDA NRCS, that explored the science behind the technology chosen to drive the Southeast FireMap (Fig. 2). The one and a half-hour webinar reached a national audience with over 340 attendees from across the country. The webinar recording hosted on the SFE YouTube Channel has already had over 230 additional views. Webinar attendees were overwhelmingly satisfied with the presentations and over 40 Society of American Foresters continuing education credits were earned by attendees. This project was a highly successful example of SFE fire science delivery experience and knowledge supporting regional partners in moving forward in addressing a multi-year fire science need. Through these efforts, SFE increased the capacity and connectivity of the Southeast FireMap scoping phase partners and stakeholders, and ultimately SFE efforts increased the conceptual knowledge of webinar participants.



Figure 2: The SE FireMap scoping phase project was a collaborative effort among the Southern Fire Exchange, Tall Timbers Research Station, the USDA NRCS, and The Longleaf Alliance. The scoping phase project culminated in a webinar that explained the science behind the map and demonstrated how to access the map through an online portal.

FY21 Southern Fire Exchange Impact and Success Story: SFE Resources Support RX-310 Course

In May of 2021, the USDA Forest Service Region-8 hosted a NWCG RX-310 Introduction to Fire Effects course for over 40 southeastern U.S. wildland fire professionals. Due to the ongoing COVID-19 global pandemic, and associated agency restrictions on in-person meetings and training, the course was offered virtually through the interagency Wildland Fire Learning Portal (<https://wildlandfirelearningportal.net>). Early in the development of the course, event lead Beth Buchanan, the Region-8 USDA Forest Service Fire Ecologist, reached out to the Southern Fire Exchange (SFE) staff in search of recorded fire science presentations that could provide region-specific fire science information and content to make the course

relevant and applicable to the southeastern U.S. Several SFE fire science videos and fact sheets were integrated into the content of the course, providing course attendees with information about the JFSP Fire Science Exchange Network and as well as information about prescribed burning in Piedmont hardwood forests and in Southeastern wetlands (Fig. 3). Following the conclusion of the course, feedback from attendees and the course instructor was very positive, and post-event evaluations showed that the majority of participants reported the course “exceeded their expectations.”

“Again, thank you for sharing your knowledge with our firefighters - you’re helping them become better land stewards!” - Beth Buchanan, Regional Fire Ecologist, US Forest Service



Figure 3: The SFE “Fire in Wetlands” webinar recording was included in the 2021 USDA Forest Service Region-8 RX-310 online course delivered through the Wildland Fire Learning Portal.

FY21 Southern Fire Exchange Impact and Success Story: SFE Connecting with New Audiences

In FY21, the SFE team delivered new programs and modified existing programs to connect regional fire science information with new and more diverse audiences. In July 2021, the SFE team hosted a Reddit “Ask Me Anything (AMA)” with fire ecologist Dr. Raelene Crandall. Reddit is one of the few online platforms that has seen its use grow significantly among U.S. adults, and it attracts an audience that skews younger than many other social media platforms. During the AMA, SFE staff coordinated with Dr. Crandall to respond to over 174 fire science questions from the public. Ultimately, the AMA was “up-voted” by over 1,800 people. SFE plans to host additional AMAs with different researchers covering other fire science topics.

In another example, to increase the accessibility of southeastern fire science information, especially to younger stakeholders, SFE launched a fire science podcast, *Friends of Fire*, in FY21 (Fig. 4). Through

conversations with experts, the podcast explores fire science research and management topics related to southeastern ecosystems. In less than a year, the five episodes of *Friends of Fire* have been listened to over 1,253 times. Podcast metrics indicate that the podcast is helping to reach a younger audience, as 71% of listeners are between the ages of 25-44. Building on this success, new podcast episodes are planned for FY22-FY25.

In FY21, the SFE team also used new auto-captioning technology in the Zoom webinar platform to increase the accessibility of our fire science webinars. Zoom webinar auto-captioning delivers optional live-text translations of spoken words to the screens of webinar attendees. Feedback from the auto-captioning has been positive, and several webinar participants have indicated that it has improved their ability to participate in the meetings and understand the webinar content. Collectively, these new and modified SFE fire science delivery programs are making conceptual impacts by increasing the fire science knowledge of existing and new regional fire management decision makers.



Figure 4: The SFE *Friends of Fire* podcast was launched in FY21 as a new resource to bring in-depth fire science and management information to new and younger audiences. The five podcast episodes have been listened to over 1,253 times and can be found on the Spotify, Apple Podcasts, Google Podcasts, and Anchor libraries.

"SFE has been an extremely valuable resource, bringing me the most current research on prescribed fire science, and has allowed me to incorporate the most up-to-date information in my prescribed fire program. This is extremely valuable to me as a land and habitat manager for a state wildlife resource agency and I always look forward to the information they provide." - SFE Fall 2021 Survey Response

"I am part of a land management agency that is responsible for 31,000 acres of natural lands. We use fire as an important tool. The SFE has provided evidence-based insight into how to apply prescribed fire in our woodlands to maintain their integrity and resilience." - SFE Fall 2021 Survey Response

"I utilize information from the SFE Webinars mainly and other publications as well when applying prescribed fire in my managed areas. When I spend the amount of time, effort, and energy that a prescribed burn requires, I want to be informed by the most up-to-date and relevant science to get the most efficient returns for the land I manage. I also appreciate the culture that the SFE network promotes, one that encourages sharing of information from all levels, whether it's from scientists to practitioners or back the other way to inform the necessary research."
- SFE Fall 2021 Survey Response