Aubrey Dunn, State Land Commissioner
State of New Mexico

In Case You Missed It:

Collaborative Controlled Burn in New Mexico Demonstrates Fire as an Essential Ecosystem Process
By Esmé Cadiente, Fire Adapted Communities Learning Network
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http://fireadaptednetwork.org/collaborative-controlled-burn-new-mexico-demonstrates-fire-essential-ecosystem-process/

As a new employee with the Forest Stewards Guild, I recently had my first opportunity to work as a crew member on a collaborative controlled burn. I worked alongside highly qualified and experienced firefighters from the New Mexico State Land Office (State Land Office) to conduct a broadcast burn. Our burn location was near Black Lake in northern New Mexico, and together, we safely returned fire to approximately 500 acres of ponderosa pine, aspen and mixed conifer forest.

Firefighters head into the forest to protect a wildlife snag by cutting a handline. Credit: Esmé Cadiente

The burn was possible because of collaboration with Angel Fire Fire Department, Bureau of Land Management- Taos Field Office, City of Santa Fe Fire Department, Fire Learning Network, Moreno Valley Fire Department, New Mexico State Forester's Returning Heroes Program, New Mexico State Land Office, Santa Fe National Forest, Santa Fe ¡YouthWorks!, Taos

Ski Valley, Terra Fuego Resource Foundation, US Geological Survey, and the Wildfire Network. (See the bottom of this post for links to our partners' web pages.)

Broadcast burning is an important part of building fire adapted communities and protecting homes in the wildland-urban interface from wildfire. The burn was a continuation of work that began in 2008 through collaboration with the State Land Office and partners. The goal of the project was to improve forest health, protect nearby communities from wildfire and restore the upper Little Coyote Creek watershed. As a newcomer to the collaborative burning process, I quickly came to understand that working with partners leverages resources and enhances learning and training opportunities. Furthermore, putting fire back into a fire-deprived forest grounded my understanding that fire is a key ecosystem process. A forest that has adapted to thrive alongside fire needs fire to be healthy, something this burn demonstrated.

A burner from Taos Ski Valley lights slash in an open field. Credit: Esmé Cadiente

Understanding fire as a key ecosystem process begins by understanding the origins of fire. Fire and forests are inextricably linked; the origins of both evolved together throughout the history of the planet. As fire took its place on the landscape, numerous plants adapted to fire in a myriad of ways, including the development of thick tree bark seen in many forests, fire-stimulated timing of germination and sprouting, and fire-triggered seed release ("serotiny").

Similarly, wildlife developed life cycles that rely on the presence of wildfire on the landscape, and many organisms came to rely on post-wildfire habitats. Fire is an essential ingredient in maintaining a balance and forest health in many ecological communities. However, forest fire is a phenomenon that often carries negative connotations for humans.

Fire brings with it smoke, heat and ash, all of which can be alarming and misunderstood. On the contrary, these "negative" connotations that surround forest fires – smoke, ash and heat—are often positive for the forest in ways that are not immediately evident. Charcoal can increase water retention of soils; ash acts a fertilizer for new grass recruitment. Heat stimulates germination in some plant species, and chemicals in smoke can jump-start seed release for some plants. Increased grass recruitment post-fire allows ungulates like elk and deer to experience excellent browse for several years after a burn. Also, some bird species depend on snags and other post-fire habitat for nesting and hunting.

Smoke and a dipping sun create gorgeous rays of light as firefighter Nick Cloud wraps up a hoseline. Credit: Esmé Cadiente

My recent experience on the controlled burn showed me first-hand the truth in these statements. Prior to the burn, the Forest Stewards Guild surveyed the area with the burn boss. While we were walking through a 2013 burn unit, we spotted a northern goshawk swooping delicately through the forest, hunting for her young that were nested high in a ponderosa pine. We also spotted elk and deer browsing on grass that had established in the burn area. The forest looked healthy, vibrant and full of life. Just beyond the State Forest boundary, the peaked roofs of houses poked through the trees. These homes were much more protected from wildfire now that the forest had been treated; burned and defensible space eliminated fuel that once could have carried fire to these homes.

The Forest Stewards Guild has been participating in safely putting fire back into the forests in New Mexico and southern Colorado for the last three years. An important component of this work is to engage the public, including landowners, in the process. Their involvement promotes the understanding of fire's social and ecological benefits. It is also helpful for stakeholders to see resource management goals being achieved with prescribed fire.

One of the greatest misconceptions about controlled burning is that all fires burn intensely and devastate the forest and wildlife. I too, carried this misconception with me until I learned that there are many ways fire can move across a landscape. Prescribed fire, when done properly, is not a devastatingly destructive force. It is an intentional application of a forest management tool. Under the right circumstances, it can restore forests, promote ecological health and protect communities from the threat of a catastrophic wildfire. Through partnering on collaborative burns, providing training opportunities and engaging the public, the Forest Stewards Guild is providing opportunities for people to understand the techniques used to implement fire, the science behind the decisions and the careful, deliberate ways that fire is intentionally and strategically reintroduced to the forest.