



Grant Title: Prescribed Fire Training Exchanges

Project Sponsor(s): The Nature Conservancy

Sponsor Contact Information: Jeremy Bailey, jeremy_bailey@tnc.org

Funding Request: \$32,987

Project Duration: Planning Sept. 2011 – Feb. 2012
Implementation Jan. 2012 – Feb. 28, 2013 (work completed March 2012)

Biologically Unique Landscapes Impacted: Middle Loup and Platte River Corridors, Central Loess Hills and Loess Canyons & the Middle Niobrara Valley.

FINAL PROJECT REPORT

Project Summary: As planned, the Great Plains Fire Learning Network, a partnership between local, state and federal land managers, mobilized and led prescribed fire crews that conducted prescribed fires for local resource managers and land owners, while providing training and experience for practitioners. The crews were a multi-organization taskforce of trained and qualified fire practitioners, and burned on lands of varied ownership. The fires varied in size, but the daily average was 423 acres (400 acres/day proposed) with a total acreage of about 8,900 acres (7,000-14,000 proposed).

Detailed Outcomes

The 2012 Prescribed Fire Training Exchange produced on-the-ground results that included:

- Participants treating 8,897 acres with prescribed fire in six different areas in the region;
- A total of 47 participants (from 10 states, and one from South Africa) receiving training and experience in the roles of Burn Boss, Firing Boss, Engine Boss, Squad Boss and Fire Effects Monitor;
- Multiple engagements with media—including NET Radio, Rural Electric Nebraskan, Prairie Fire and several small town newspapers—that gave participants experience with public outreach and helped reinforce local support for the use of fire (see Appendix A: Sample Media Coverage);
- Enhancement of local partnerships, as participants worked with a mix of partners and managers including private land owners in Rock County, the Nebraska Game and Parks Commission, Natural Resources Conservation Service, National Park Service, U.S. Forest Service, Audubon Society, Pheasants Forever, county conservation boards, volunteer fire departments and The Nature Conservancy (see Appendix B: Prescribed Fire Training Exchange FAQs, distributed to landowners);
- Demonstration of the safe use of fire, and engagement of local landowners and volunteer fire departments in a dialogue about using fire in the future;
- Student Association for Fire Ecology (SAFE) chapters from two schools—University of Idaho and Colorado State University—facilitating field experience for students; these partnerships have led to the Yale School of Forestry and University of Missouri showing interest in growing their SAFE chapters and including similar experiential training in their objectives; and
- Completion of monitoring reports for burns at the Hutton Ranch and Rock County units to document the effects of the burns (reports available upon request).



Photo taken 60 days post-burn at Willow Creek (near Scotia, NE) showing excellent rates of eastern redcedar mortality and grass regeneration

Description of Project Activities

The funds provided by Nebraska Natural Legacy Project paid for:

- Staff time of key leaders (cadre);
- Travel expenses of key leaders;
- Supplies to support participants in the field (e.g. printing of maps, batteries for radios, sports drinks); and
- Fuel for motorized equipment and ignition devices.

With this support, staffs were able to write burn plans and arrange logistics for, and then complete, 13 burns in biologically unique landscapes in Nebraska:

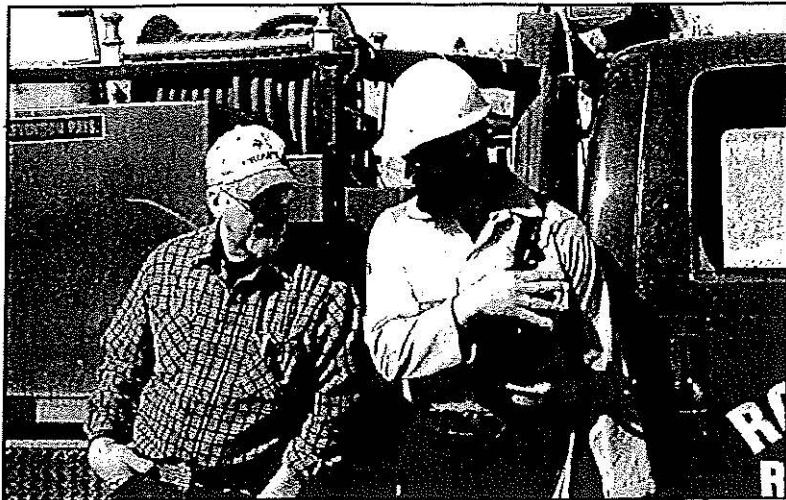
- 1,140 acres on Hutton Ranch Wildlife Sanctuary on March 11 & 14, 2012;
- 1,397 acres on private property in Rock County adjacent to Hutton Ranch on March 12-13, 2012;
- 750 acres on Plum Creek NGPC (Johnstown) on March 18, 2012;
- 1,100 acres on Niobrara Valley Preserve TNC on March 19-24, 2012;
- 2,280 acres on private property near Gothenburg, NE March 21, 2012; and
- 2,230 acres on private property near Scotia, NE March 23-31, 2012.

Variations and Deviations from Proposal

The Nebraska Forest Service did not participate as extensively as planned; NFS did provide consultation on timing, strategy and tactics, but did not provide staff and equipment or take advantage of training opportunities.

Submitted July 20, 2012

Fire training exchange gets off to a hot start in Rock County



LANDOWNER AL ARMSTRONG is briefed by burn coordinator Jeremy Bailey prior to the burn. *photo by Rod Stolcpart*

(Reprinted with permission from the Norfolk Daily News)
by Sandy Benson

It's hard to set a date months ahead of time for conducting large prescribed fires involving many landowners and dozens of people from numerous agencies and organizations in 11 states. The temperature, humidity, and winds have to be just right. The logistics are enormous. But for a third year in a row, Jeremy Bailey and the Great Plains Fire Learning Network have pulled it off.

The Niobrara Valley Prescribed Fire Association (NVPFA) hosted 34 participants from Nebraska, Iowa, Indiana, Utah, Colorado, California, New Mexico, Arizona, Oregon, Idaho, and Ohio as they conducted a 1,400-acre prescribed burn of cedar-encroached grassland. Five Rock County ranchers worked together to mow firebreaks and prepare the unit for burning. The NVPFA worked with Bailey to provide prescribed fire education

in a classroom setting, followed by the demonstration burn.

"This was probably the most informative presentation we've ever had," said NVPFA vice president Lance Kuck. "They have a wealth of knowledge, and combine that with the practical knowledge we have here, knowledge passed both ways. It went off very, very well."

Fire Learning Network Coordinator Jeremy Bailey, of Salt Lake City, appreciated both the quality and quantity of the Nebraska training. "Allowing the agency firefighters the chance to train and practice on landscape-scale burning here in the Niobrara Valley and working with private landowners is a tremendous opportunity. The professional firefighters and students from all over the country are learning and sharing, increasing their skills and experience so they can take this learning home and apply it on their landscapes."

He noted that 20 students from three universities are volunteering during their spring break.

Working late into the night, the crew completed the majority of the target acres.

"I couldn't be happier with the way everything went today," said Kuck. "We had the best weather we could ever have, and to have such a huge crew was tremendous."

The annual fire training exchange program is designed to help reach conservation goals while at the same time helping fire fighters learn new skills. The training is sponsored by The Nature Conservancy, the Fire Learning Network, the Nebraska Natural Legacy Project, the Nebraska Game and Parks Commission, the Nebraska Prescribed Burn Task Force, the Natural Resources Conservation Service, and the Northern Prairies Land Trust.

In addition to the demonstration burn, the trainees are conducting burns at another conservation property northeast of Bassett, at two Nebraska Game and Parks Wildlife Management Areas, and at The Nature Conservancy's Niobrara Valley Preserve north of Johnstown before moving to the Loup Valley for more training.

Appendix B: Prescribed Fire Training Exchange FAQs



Prescribed Fire Training Exchange Frequently Asked Questions

Is this prescribed fire mandatory?

Absolutely not. If you are not interested in participating in this prescribed fire opportunity, let us know and we will plan the fire around your property. If you decide not to participate, we will still try to keep you informed about the status of the fire.

What will this prescribed fire cost me?

Involvement in this prescribed fire is free to participants. You will **not** receive a bill from either the fire crews or partnering organizations. However, if you decide to engage in preparatory work to enhance the effects of the fire (i.e., pasture rest, cutting and stuffing trees), you will incur those costs as those activities are voluntary.

What can I do to help?

There are several ways participants can get involved. First and foremost, let us know about the following items on your property within the fire boundary: fencelines, gates, watering tanks, hazardous areas, structures you do not want burned. You can also help by turning on your tanks during the timeframe of the prescribed fire. This will allow us to quickly fill up engines in case of an emergency. Finally, if you would like to participate on the fireline, you will need to complete a basic wildland firefighter training administered through the National Wildfire Coordinating Group. If you are interested in participating on the fireline, contact us.

How is this fire going to impact my grazing schedule?

Participation in this prescribed fire opportunity does not involve any pre- or post-fire grazing obligations or restrictions. We encourage participants to allow for some grazing rest prior to the fire but resting your grass is entirely voluntary. If you have limited opportunity to rest your pasture, focus your efforts in areas where you would like the fire to be more intense (i.e., areas with heavier tree density). In addition, this fire will not delay green-up. In fact, if you have areas where invasive cool-season grasses are of concern to you, we encourage you to graze these areas immediately upon green-up and remove the grazing pressure around June 1 to allow native warm-season grasses to become established.

What if I have areas I don't want burned?

Areas or items you do not want burned should be brought to our attention so we can plan around them. In the past, we have successfully protected homes, hunting blinds and newly established shelterbelts located within the burn unit. If we do not know about it, we cannot save it.

Will this fire destroy my fenceline?

The prescribed fire will be moving through grass quickly and will not reside along the fenceline long enough to ignite fenceposts. Fenceposts that are vulnerable to fire are usually susceptible because of previous deterioration or rot at the base. In most cases, these posts have already lost their structural integrity prior to the fire. Also, research from Oklahoma State University has indicated that grass fires do not weaken or degrade barbed wire. In several tests, they determined that tensile strength was retained in barbed wire following a fire.

Is this fire going to kill all the cedar trees in my pasture?

No. The eastern red cedar has proliferated for several decades in the region. In many areas, large trees and dense clusters of trees have developed. Larger trees require more energy to kill them. This can sometimes be accomplished with substantial grass fuel resulting from grazing rest. In addition, dense clusters of trees also are difficult to kill because the trees shade the ground and prevent grass fuel from growing. During this fire, we are specifically targeting smaller trees in relatively open areas to prevent further spread.

Do I need to be present during the fire?

No. If you would like to participate in the fire, you will need to complete a basic wildland firefighter training administered through the National Wildfire Coordinating Group. If you are interested in participating, contact us.

Who is going to be conducting this fire?

Crew members on this fire are federally certified wildland firefighters. These individuals have extensive experience with fighting wildfires across the country and are using this fire as an opportunity to train for advanced roles on the fireline. Crew members in the past have come from Arizona, Idaho, Iowa, Michigan, Nebraska, South Dakota, Utah and Wyoming.

Can I know the exact date that my pasture will be burned?

Prescribed fire is heavily dependent on weather conditions. A particular unit or pasture will likely require a specific prescription of temperature, humidity, wind direction and wind speed. Because of this, burning on a particular day is difficult to predict in advance. We will not know with certainty if these conditions can be met until the day of the burn.

How will I benefit from this fire?

Eastern red cedar has proliferated across the region due to the absence of fire. These trees are effective at shading and often eliminate many acres of grass throughout a pasture. Every acre that is lost to trees is an acre that is lost in livestock production. Although it might seem like these cedars are everywhere, there are still many areas of good healthy grassland that are just beginning to be invaded by trees. We are attempting to eliminate the trees from these areas. The most effective and efficient way to sustainably manage these trees and reclaim your grass and associated production is through prescribed fire.

What if my unit does not get burned?

We have a specific window in which crews will be deployed to the area and a window of approximately 10 days to perform the prescribed fires. However, because several units have been planned, there is a possibility that we will not be able to complete all units. If the fire crews do not complete all the units, we can assist landowners with the completion.

Is there anything I can do to enhance the effects of the fire?

More fuel on the ground will result in a higher intensity, more continuous fire. Allowing the vegetation in your pastures to rest from grazing for even a little while can enhance the fire. If you have limited opportunity to rest a pasture, consider using an electric line and resting only parts of your pasture that are of greatest concern to you. Also, mechanically cleared cedar trees that dry out can make great fuel to ignite larger patches of trees. This strategy is especially effective when cut trees are piled at the base of a tree-lined slope.

Additional questions?

Feel free to contact Ben Wheeler or John Ortmann at 308-728-3244.