

# Getting Started: How One New Mexico Couple Found Fire

Agassiz Beach Ridges, Minnesota & Loess Hills, Iowa  
Spring 2021

*By Darren “dk” Kugler and Hollie Jacobs  
The Nature Conservancy, New Mexico volunteers*

## Living in a Tinderbox

We live in the Sacramento Mountains in southern New Mexico, and our home is in the tinderbox called Cloudcroft. We’ve watched the fuel load grow with each passing year as drought and beetles kill trees. Dead and down timber and standing dead trees have accumulated at a frightening rate.

We started working on these fuels more than ten years ago. We purchased a 50cc Husqvarna chainsaw to clean up “dog hair” thickets and brush on our one-acre lot, and hauled off loads of slash. With much help from a hazardous tree removal expert, 20 large trees on our lot were downed and turned into firewood. Sunlight now gets to the ground and streams through our cabin windows.

While some neighbors seemed to admire our approach and appreciate the improvements to our lot, few followed suit on their own properties. Just north of us, near Ruidoso, the community was moved to address their fuel load after the 2012 Little Bear Fire and 2019 Pine Lodge Fire. While they used various tactics, including code enforcement measures, in and around Cloudcroft there has been steadfast resistance to any mandated approach to reducing fuels.



Cleared brush, hazardous tree removal and a fire-resistant roof on the cabin weren't enough for dk Kugler and Hollie Jacobs. With the help of The Nature Conservancy and the Fire Networks, their quest to use fire took them on a road trip from their home in Cloudcroft, New Mexico, to a Conservancy preserve in Minnesota and the Loess Hills Cooperative Burn Week in Iowa.

## Preparing to Do More

Just retired after two decades in court, I wasn't ready for another fight of any kind, but I wanted to find some way to contribute to the Cloudcroft community. Having been a volunteer firefighter right after high school, we considered volunteering with the Cloudcroft VFD, but we decided to train as wildland firefighters instead. We started in February 2020 by attending the week-long Sierra Blanca Wildland Fire Academy in Ruidoso. A few weeks later we followed up with a weekend of advanced first aid training at the Sacramento Wildfire Academy in Cloudcroft.

During wildland fire academy, we talked about being assigned to a wildland engine—which usually means tending the truck, laying hose, using portable pumps to fill the truck's tank, refilling drop tanks for other trucks, filling bladder bags or metal backpack cans—everything that keeps you a long distance from the fire. Instead, I wanted to be part of a hand crew, directly fighting the fire by building fire lines, extinguishing spot fires, and mopping up hot spots.

## COVID Changes Things

Then COVID-19 hit. It delayed our plans to complete the required arduous pack test so we could get our red cards as certified wildland firefighters. More important to the path we've chosen, the reality of a COVID world, with its social distancing requirements and “module as one” practices, made the hand crew firefighting we hoped for less likely. In this new world, we realized that working on a brush truck was actually a good way to reduce COVID risks and still be able to help fight wildland fires.

Then it dawned on me that one way to use our newly acquired wildland fire skills to help reduce the fire risks near our home would be doing pile burns—or maybe even prescribed burns—for landowners in our area. By equipping and deploying a brush truck, we could address several issues. First, New Mexico has a very strict prohibition (through the anti-donation clause of our constitution) on using public assets for any private benefit. That means all the lovely state-owned fire trucks stay in their stations while property owners continue to have fuel loads building up on

their lands. Second, we saw very promising efforts to change the state's onerous liability standards for prescribed burning—a strict liability standard with double legal damages for any property damage caused by private burning, including pile burns. (The New Mexico legislature recently made the liability standards less onerous, effective in June 2021.) Third, the Sacramento Mountains region (and, indeed, all of New Mexico) had a lack of fire protection or suppression equipment or personnel available to conduct prescribed burning for private landowners. And finally, homeowner's insurance companies were starting to terminate coverage or drastically increase rates in the surrounding area (including the Twin Forks subdivision near Cloudcroft), which created a pool of homeowners motivated to reduce their fire risks.

## Building a Brush Truck

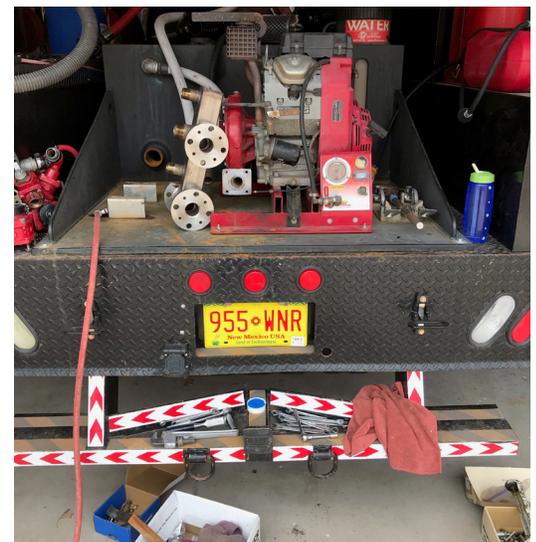
So I decided to build a brush truck. I had an image of an ideal brush truck, based on my experience as a volunteer firefighter with the Las Vegas VFD in the 1980s and on the Type 6 brush trucks that are common here in the Lincoln National Forest. The Las Vegas VFD had several older second-hand fire trucks and an International 4x4 utility

box truck. All carried equipment primarily for residential structure fires, such as breathing apparatus and ladders. All were also very heavy and mostly too big for working in the wildland urban interface. (Their shortcomings were often the subject of discussion during the long wait for a tow truck to rescue a firmly stuck or thoroughly broken truck.) Having learned what not to do, my truck build began with a recently retired 2011 Ford F350. Online searches and eBay provided the necessary firefighting additions.

Next in my quixotic journey was the acquisition of lots of PPE—personal protective equipment—for Hollie and me. Once outfitted in new gloves and new yellow helmets, along with somewhat worn and tattered Nomex clothing and used fire packs carrying the older version yellow fire shelters, we were ready to apply what we learned at fire school by starting hands-on training.

## Waiting for a Window in New Mexico

The Nature Conservancy had generously offered to host our wildland firefighting credentials, and we were ready to get some experience in the field. But another roadblock delayed our desire to put smoke in the air: we couldn't find



My truck build began with a short wheelbase single cab, single rear wheel, flatbed 2011 Ford F350 that was recently retired from working on a feedlot in Hereford, Texas. I added a 200-gallon CET skid unit with a 18 horsepower Honda-powered pump and booster hose reel—it had been sold as a surplus unit from the Vilonia, Arkansas, VFD to a 4-wheel drive enthusiast in Los Angeles, California, who only wanted the pickup that carried the CET skid unit. So the brush truck build was well under way. With toolboxes, lots of surplus hoses and various firefighting gear obtained mostly from eBay, the well-worn and slightly dented brush truck started to take shape. © dk Kugler



While cutting fire line at Heendah Hills Pond, Hollie applies her REAF (Resource Advisor-Fire) training by marking resources to be protected. © dk Kugler

trainee opportunities in New Mexico. This was partly due to COVID restrictions on group activities, but there was also a wicked drought—2020 saw an unusually anemic monsoon season, and then the winter snows were slow in coming. Finally, in January the Forest Stewards Guild was ready to burn multiple piles from tree thinning work in the Glorieta area of the Santa Fe National Forest—but we were snowed-in at home in Cloudcroft. In February, a possible opportunity for pile burning near Jemez Springs fell through because of (very reasonable) COVID regulations on the burn.

As we waited, we continued building our qualifications. In March 2021, at the encouragement of our TNC mentor, Jeremy Bailey, Hollie and I completed Resource Advisor for Wildland Fire (N-9042) training online to obtain READ qualifications. We also completed IS-200 and IS-700 (about incident command and incident management systems) to meet the REAF requirements for red carded fireline resource advisers. (Wow, The Nature Conservancy is very serious about fire training.)

## Heading to Minnesota

And then we got an invitation to burn with TNC—in North Dakota or Minnesota. We jumped on it. Hollie and I packed up, and headed north.



At "The Grids" research plots at Pembina Trail Preserve, dk lays down blackline with a drip torch in preparation for burning the 10x10 meter plot. © Hollie Jacobs

Burning in the Sheyenne National Grasslands in North Dakota was interrupted by wildfires elsewhere that drew off the Grasslands' fire crews, but the Minnesota work was a go.

So on we went to TNC's Agassiz Beach Ridges office for prescribed burning on Minnesota's rare tallgrass prairies. Working around freezing nights and too many windy days, burn bosses Eric Hoff and Jon Eerkes were determined to put smoke in the air; under their expert tutelage, we worked our first burns. After days of preparation work including mowing fire breaks, removing fences and testing equipment, our first burns, at "The Grids" were a great training opportunity. For over 20 years The Grids—10x10 meter research plots at the Pembina Trail Preserve—have been used to study fire impacts on the western prairie fringed orchid. The conditions weren't ideal for southwestern residents—we're not practiced at wading through the knee-deep ice-covered water that we found in and around The Grids—but that's spring burning in Minnesota's tallgrass prairies. Drip torches in hand, we ignited back burns—fire that burned into the prevailing wind—to create a buffer of black on two sides of the grid before a head fire was lit to burn the interior of each 100 square meter grid slated for spring burning. (Other grids are burned annually in the fall, and still others left untouched as control grids.)

On the last day of the Loess Hills Cooperative Burn Week, as the humidity dropped below prescription on one burn, smoke can be seen rising from another burn still in prescription. © dk Kugler



At the end of our first burn day we were very cold, and wore socks and boots thoroughly soaked in ice water, gloves coated in diesel fuel, dirty Nomex—and mile-wide grins. We had finally done prescribed burns—lots of them. Thank you, TNC. Our good luck continued as the weather allowed larger scale prescribed burns on Saturday—two units (218 and 18 acres) in the morning, and an afternoon burn of 162 acres. The first morning burn was the first real test of our brush truck, as I was assigned to protect large trees along the fence on the western boundary of the burn. Our truck was up to the task and performed flawlessly, and did so again on the afternoon burn where I was once again protecting fencing and preventing spot fires along the western boundary.



The brush truck gets its first test, patrolling the boundary of a burn at the Bluestem Prairie.

© dk Kugler

## Burning in Iowa

In Minnesota, Hollie and I had finally done hands-on prescribed burning and earned our red cards. We had also met TREX coach José Luis Duce from Spain and Andrea Bustos from Ecuador. We were thrilled to be going with them to our next opportunity, the Loess Hills Cooperative Burn Week in Iowa. We packed up our gear, refueled the brush truck, re-stocked the cooler, and hit the road again.

While Hollie and I had been very impressed with the number of fire personnel and equipment required for the Minnesota burn work—brush trucks, ATVs, UTVs, a Ford F-250 Matt-tracks truck and more drip torches than I could count—the Cooperative Burn Week seemed to have ten times the personnel and equipment, and was prepared for multiple large-acreage burns. Our little brush truck seems big when I try to back up from a parking stall, but it was completely dwarfed by the size and number of trucks, trailers and ATVs at the Broken Kettle Grasslands staging area.

The Cooperative Burn Week was just that, a cooperative effort of the Iowa Department of Natural Resources, Iowa

Natural Heritage Foundation, TNC and numerous other local partners, assembled for a week-long prescribed burn effort with an emphasis on training opportunities for both experienced and new fire personnel; Hollie and I fit right in. There were prescribed burns every day, often with multiple simultaneous burns at a wide range of locations in the Loess Hills. On Monday morning, Hollie and I burned the Newburgh Pasture in the Hillview Recreation Area in Plymouth County. Monday afternoon we assisted on a burn at the Deer Creek-Hoffman property. Tuesday's burn was the 120-acre Boyd's Bend in Plymouth County. Wednesday's was at the Five Ridges-Rock Creek Preserve in Plymouth County. Thursday was a burn of the Heendah Hills Pond Unit. Finally, on Friday we burned at a protected area, a 16.23-acre easement in Woodbury County; after a week of good burn weather, this final burn was cut short as the humidity dropped below the burn prescription parameters. But what a great week of burning that was.

## Looking Forward

Hollie and I are back in Cloudcroft for some rest and cleaning clothing and gear, along with some equipment upgrades and maintenance. (Yes, more eBay purchases are on the way.) We are very much looking forward to our next opportunities to learn more fire techniques and practices and develop our skills for prescribed burning. Thank you to everyone with The Nature Conservancy and partners in New Mexico, Minnesota and Iowa, and especially to José Luis Duce and Andrea Bustos, companions on this first fire journey.

Contact the author:

Darren "dk" Kugler [darren\\_kugler@yahoo.com](mailto:darren_kugler@yahoo.com)

For more about TREX or TNC fire programs contact:

Jeremy Bailey [jeremy\\_bailey@tnc.org](mailto:jeremy_bailey@tnc.org)

Some of the work mentioned here was supported in part by the *Promoting Ecosystem Resilience and Fire Adapted Communities Together* (PERFACT) cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. For more about PERFACT, contact Marek Smith at [marek\\_smith@tnc](mailto:marek_smith@tnc).

*An equal opportunity provider*