

Loess Hills Cooperative Burn Week

Loess Hills Region, Western Iowa
April 29-May 3, 2019

This spring 81 participants from 34 agencies and organizations took part in the Loess Hills Cooperative Burn Week. The event provided an opportunity to join with partners to achieve fire management in an area where additional skills and resources were needed to accomplish the work at a landscape scale. It was also an opportunity to build relationships with partnering agencies and share knowledge and skills. Many participants also gained experience working within a more complex organizational structure than they typically do, using the Incident Command System and working with an incident management team made up of ten staff from several different agencies.

By almost any metric you choose—number of participants, range of organizations, acres burned, blend of training and burning, or innovative scenarios—this event built on previous work to become the most successful cooperative burn week yet.

Building Capacity in the Loess Hills

The cooperative burn week has grown to be part of a larger effort to build leadership skills and relationships across the fire and emergency response community in the Loess Hills region.

Across this landscape and within the organizations working here, partners have identified the squad boss (FFT1) level of expertise as the most crucial for supporting fire operations. Firefighters at this level have the local knowledge that helps them control both holding and firing operations within their divisions, while also controlling the tempo for the day. Focusing resources on this position is a necessity for all organizations across the Loess Hills to continue to build fire capacity and efficiency within their programs.

In January, 18 students expanded their skillsets in an S-290 (Intermediate Fire Behavior) course, and an L-280 (Followership to Leadership) course is planned for later in the year. Two non-burn days during the week were used to facilitate teaching additional skillsets and build regional burn expertise. The training included classroom presentations; exercises in equipment

maintenance, communication and size-up using a sand table; and a site visit to a recent burn unit. Shifting the incident command post to a new location was treated as a mass demobilization/mobilization exercise as well. And, perhaps most dramatically, there was a hands-on medical incident scenario involving on-site firefighter personnel, the county dispatch center, the local VFD and the county emergency management coordinator. The scenario was a fully live exercise, going through the entire process of patient assessment through a 911 phone call, to transport



Less than 0.1 percent of Iowa's native prairie remains, so ecological objectives are important throughout this hilly landform. Invasive species management, eastern redcedar eradication, and ecological rejuvenation are crucial to protecting remnant prairie in the Loess Hills.
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Above: Drones-eye view of the 168-acre Deer Creek unit, Plymouth County. © Kevin Juszyk
Below: Carrigan-Rains unit in the Loess Hills State Forest.
© Lance Brisbois

from the field, to loading the patient into the ambulance.



Burning in Priority Places

This year's cooperative burn week focused on the northern portion of the Loess Hills, including Harrison, Monona, Plymouth and Woodbury counties. Burn units had been identified as priority areas by partners, and included Broken Kettle Grasslands Preserve, Plymouth County Conservation, Iowa DNR WMA and Loess Hills State Forest sites as well as additional agency units. The burn week was based at the Loess Hills



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Below: The crew conducts an AAR following initial attack and size-up exercises before burning the units. © Pete Hildreth

State Forest headquarters for first three operational periods, and on the third day, the incident command post was moved to Broken Kettle Grasslands Preserve in a mass mobilization exercise.

Each of the three operational periods with weather conducive to live fire presented the opportunity to simultaneously conduct separate operations on three sites. Daily



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participation ranging from 40 to 61 personnel not only allowed for multiple burning operations, but for pairing mentors and trainees to facilitate a one-on-one learning environment on the fireline.

Participating Organizations

AmeriCorps
Conservation Corps of Minnesota and Iowa
Dickinson County Conservation Board
Fontenelle Forest Golden Hills RC&D
Hardin County Conservation Board
Harrison County Conservation Board
Harrison County Emergency Management Agency
Harrison County Public Health
Harrison County Sheriff's Department
Iowa Department of Natural Resources--Forestry, Parks and Wildlife divisions
Iowa Natural Heritage Foundation
Iowa State University
Mondamin Fire and Rescue (VFD)
Monona County Conservation Board
Natural Resources Conservation Service
Pheasants Forever
Plymouth County Conservation Board
Pottawattamie County Conservation Board
Seligman Fire Department (VFD)
Smithland Fire Department (VFD)
The Nature Conservancy
Walker Fire Department (VFD)
Whiting Fire Department (VFD)
Woodbury County Conservation Board

Valuable Training

Firefighter and public safety, building interagency relationships, and providing participant training are the objectives of each cooperative burn week. The acres that get burned are a bonus, a byproduct of this foundation. The driving force behind the effort is the development of experience, skills and leadership that will allow participants to be better firefighters—and better land stewards and employees of their respective organizations.

Participants reported that the cooperative burn week was a positive experience. Thirteen people received evaluations for their FFT1 (squad boss) task books, and one person for their ENGB/FIRB task book; several people also served as agency burn boss trainees. Numerous participants were able to work in their trainee role during more than one operational shift.

Other training opportunities of note included learning new or different engine and UTV setups, practicing portable pump set-up, firing Very pistols (flares) and using fuseses. Other offerings—sand table exercises, mass



The mobilizing convoy stopped to study burn unit design, fire break location, ecology, and fire management strategies for threatened and endangered species on a Missouri River WMA property. © Kody Wohlers

Multi-Agency Training Scenario: Medical Emergency on the Fireline

Shortly before the cooperative burn week began, the organizers and Harrison County Emergency Management Agency realized the event presented a great opportunity to use a live exercise to work through an emergency in the field—and expand and strengthen relationships among various agencies in the region. They rapidly assembled key players—including the local VFD and emergency dispatch—and designed a medical scenario,

The incident started with a firefighter in a remote location scouting a previously burned unit suddenly going down for unknown reasons. A trainee incident commander was identified, and the scenario ran its course. A live 911 call was made to the county dispatch center, with a pertinent patient assessment by way of the 8-Line describing the issue. The dispatch center got hands-on practice working through several processes—geographically locating the cell phone (pinging), locating the nearest intersection, locating the nearest 911-address, and dispatching the local VFD to that location.

Meantime, personnel on the scene were assigned to the field entrance to meet the incoming VFD. Once at the 911-address, the VFD made their way by UTV to the patient. The patient was assessed, loaded into a stokes basket, transported down the steep grade to the UTV, loaded onto the UTV, and transported to the ambulance. This was valuable training for the VFD, as they had never loaded an actual patient in the basket onto the UTV skid before this exercise. The patient was then moved from the UTV onto the gurney and to the ambulance for hospital transport. (Arrangements had also been made so that, had weather permitted, a medical helicopter would have been called in, to allow for practice in loading a patient.)

Going through the entire process was an exceptional experience for all parties. Particularly useful were seeing the actual timeline of a real scenario unfold, and all of the communication and coordination playing out in a real-world situation. The exercise also reinforced firefighter safety as priority.

The IMT expressed special thanks to the Harrison County EMA for a fantastic job aiding in this scenario.



From the top: The patient is assessed, then loaded into a stokes basket and transported to a waiting UTV. The stokes basket was then loaded onto the UTV skid and secured, and transported to the ambulance.

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Kody Wohlers; Mike Weis



Far left: An interior ignitor takes aim with a Very pistol on the McCarthy unit at the Broken Kettle Grasslands. © Melanie Louis

Left: One participant takes a moment to teach another about a piece of equipment before a burn operation starts. © Melanie Louis

mobilization, and live fire size-up and initial attack exercises—and working within a complex burn organization with multiple divisions organized under the Incident Command System provided valuable perspective and experience to participants as well.

Successful Outcomes

The cooperative burn week was successful in achieving multiple objectives, including stewardship management goals, fireline training and experience, leadership and personal skill development, and improving collaboration among partners in the Loess Hills region.

The participation of 81 people, most of who came from within the Loess Hills, speaks to the high level of interest among partners in completing priority burn units and pursuing training and networking opportunities in the region. Several county conservation boards from across the state sent personnel to gain fireline knowledge, learn in a professional atmosphere, and gain insight into ways of starting other cooperative efforts across the state. The participation of the Harrison County Emergency Management Agency and VFD personnel contributed significantly to the success of the event, as did the participation of several people from Nebraska and even Arizona.

This year’s use of an expanded incident management team as well as a more focused Incident Command System provided additional organization and smoother operations on burn days, during transition periods, and throughout the week. To continue building on this success, the Loess Hills Fire Partners will conduct a more detailed after action review at their next quarterly meeting.

Burn Unit	Ownership	County	Acres
Hargroves North	DNR (Missouri River WMA)	Monona	449
Bothwell-Grimes	DNR (Loess Hills State Forest) / private	Harrison	148
Carrigan-Rains	DNR (Loess Hills State Forest)	Harrison	770
Deer Creek Loutsch	DNR (Missouri River WMA)	Plymouth	168
Port Triangle	TNC (Broken Kettle Grasslands)	Plymouth	74
McCarthy 11 & 12	TNC (Broken Kettle Grasslands)	Plymouth	517
Walnut	Plymouth CCB	Plymouth	24
Frigge	Plymouth CCB	Plymouth	21
Winkel Walters	DNR (Missouri River WMA)	Woodbury	311
Bison Trap	TNC (Broken Kettle Grasslands)	Plymouth	115
Little Sioux C: Units 1-3	DNR (Loess Hills State Forest)	Harrison	665
		TOTAL	3,262



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The Fire Learning Network and Prescribed Fire Training Exchanges are part of *Promoting Ecosystem Resilience and Fire Adapted Communities Together*, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior. For more information about PERFACT, contact Marek Smith at marek_smith@tnc.org.

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