

LOESS HILLS
COOPERATIVE

BURN WEEK

2024





POST-EVENT SUMMARY

The Loess Hills Fire Partners held the 9th Annual Cooperative Burn Week from April 29th-May 3rd. This event provided an opportunity to join with participants and partners from across the region to achieve fire management and training in an atmosphere conducive to building personal skills across the full array of experience levels. It was also an opportunity to build relationships, share knowledge and techniques and work within a more complex organizational structure utilizing an expanded Incident Command System.

The Cooperative Burn Week was based at the Plymouth County Conservation Board headquarters at Hillview Recreation Area in Hinton, Iowa. This year's event had a northern focal area of Plymouth and Woodbury counties. Burn units located on TNC's Broken Kettle Grassland Preserve, Iowa DNR's Missouri River Wildlife Unit and Iowa Natural Heritage Foundation, Plymouth County Conservation and, Woodbury County Conservation lands were identified as

available areas. The northern Loess Hills have experienced prolonged drought since 2019. A switch in weather patterns to cool temperatures, higher humidities and regular precipitation presented challenges for the week's event. Participants were able to complete live fire operations on two different dates throughout the week. Operational shift #1 was a suppression-focused operation with all participants working on initial attack exercises, size-up and giving briefings to their crew. Participants were split into four divisions, and simultaneously burned units at four different locations on live fire days. We had participation ranging from 55-91 personnel on any given day of the week. This allowed for pairing of trainer/mentors and trainees to facilitate a one-on-one working environment. Participants were paired based on their qualification system (agency, NWCG, Iowa DNR IFIRE qualification system).

A total of 101 participants from 45 conservation agencies and organizations, volunteers

and volunteer fire departments participated. The Iowa Department of Natural Resources was represented by 14 different wildlife units, state parks, forestry districts, and bureaus. Participants attended this year's event from 5 different states.

Twenty-one individuals received evaluations for their NWCG or IFIRE Position Task books: 11 FFT1/ICT5 (squad boss) task books, 2 Faller task books, and 2 ENGB task books within the NWCG system; 2 LINB (line boss), 3 IGSP (ignition specialist), and one RXBB (burn boss) within the IFIRE system. Of those twenty-one, two task books received a final evaluation and completion status. Other personnel were able to fulfill roles as agency burn bosses, squad bosses, UTV and engine operators and mentors. Numerous trainees were able to work in their respective trainee role during more than one operational shift with their mentor. Other training opportunities included learning new or different engine and UTV setups, presentation on suppression and initial attack, presentation from the National Weather Service on weather conditions over the past year on wildfire days, Plymouth County Conservation history presentation, "What would you do?" scenario, chainsaw maintenance and care, medical station, GoPro video clips, Jones Creek Wildfire presentation and discussion, Heendah Hills Rx Complex tour and discussion and working within a complex burn organization with multiple divisions organized under the Incident Command System (ICS). See Appendix A for a more detail breakdown regarding number of participants and acres treated. See Appendix B for pictures taken throughout the week.

Twenty-three personnel from multiple agencies served on the

Incident Management Team (IMT) in a variety of roles to assist with the planning of the event. The team continues to grow and expand to meet the event capacity needs. Several members served in trainee or learning roles on the team to gain experience and build redundancy within the IMT and region. Public information officers and other key staff for the event also promoted and moderated coverage of the event on several social media platforms, enhancing the message of the importance of prescribed fire and collaborative partnerships.

The weather conditions this year were favorable for live fire on two of the five days of the event. The suppression training day gave participants scenarios and repetitions at initial attack exercises, going through the size-up process, different tool usage, tactics and briefing crew members before engaging the fire. Chainsaw operations were implemented on one of the non-burn days at three site locations. Sawyers were able to assist local organizations with tree felling, brush thinning and discussion about the woody management of the sites.

Within our landscape and organizations, the squad boss level (FFT1) continues to be the most crucial and critical for fire operations. Firefighters at this level possess the local knowledge that aids in their ability to control both the holding and firing within their divisions, while also controlling the tempo for the day. Focusing additional time, knowledge, and experience towards this position level is a necessity for all organizations within the Loess Hills and region to continue to build fire capacity, proficiency, and efficiency. The overall planning for multiple simultaneous divisions continues to stretch the overhead for further learning and creativity.

Funding for this event was provided by The Fire Learning Network, the Loess Hills Alliance and the participating agencies. These funders provided financial support for supplies, breakfast and evening meals, housing and planning meeting support. Additional project support was provided by the participants and their agencies in the form of personnel and equipment time. Other participants donated their personal time and labor to support this event during unit prep, planning, and burn operations. Plymouth County Conservation generously donated meeting and logistical space for the week. Plymouth County Conservation, The Nature Conservancy and the Iowa Department of Natural Resources provided lodging and camping space at their facilities for the week.

Participants have shared that the Cooperative Burn Week was a positive experience and was successful in achieving multiple objectives, including land management goals, fireline training and experience, personal development skills and improving collaboration between partners in the Loess Hills, state of Iowa and Great Plains region. The participation of 101 participants (capped capacity) speaks to the high level of interest among partners in collaboratively completing priority training and networking opportunities in the region. It also speaks to the success of the previous CBW events and the product participants are receiving. This was the first CBW for 35 of the participants. The event also saw a 24% female participation percentage. Several organizations from across the country sent personnel to gain fireline knowledge, learn from a professional atmosphere, and gain tips towards starting other cooperative efforts across the state. The 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, non-burn day preparations and throughout the week in its entirety.

The Loess Hills Cooperative Burn Week model has been adopted in other regions as well. The Little Sioux Watershed Conservation Partnership hosted their first cooperative burn week in May of 2022 with strong regional participation and success. Their event and partnerships continue to grow throughout the local area of northwest Iowa. The Canadian Prairies Prescribed Fire Exchange hosted their first TREX event in October of 2022 in Saskatoon, Saskatchewan. The Nature Conservancy of Canada recently hosted an event in Manitoba, which was a result of the Saskatchewan event. This is a great start to expanding cooperative efforts in high quality areas. The incident commanders for each event attended CBW in the past to job shadow and pick up new tips to take home for their respective event. All these regional events will continue to collaborate and support each other for many years to come.

The Heendah Hills Rx Complex is a noteworthy event from the spring's partnerships efforts as well. This burn unit encompassed nearly 1900 acres in southern Plymouth County. Most of the area had been without prescribed fire for nearly two decades. In recent years, over 1000 acres of this burn unit had been permanently protected through acquisition by the Iowa Department of Natural Resources or private conservation easements. There were 31 different landowners associated with this burn unit. Multiple agencies had been planning for nearly two years to design a feasible burn unit — with a very high level of successful completion — even with the complexity of high urban

interface, two major highways and the adjacent Sioux City metro. For part of the planning process, organizers hosted two public information meetings for landowners. This allowed for one-on-one conversations, good questions and a chance to educate the group on the process of the burn implementation. From the large burn unit, five different subunits were identified to be burnt as separate operations to provide for a higher level of resources, neighbor relations and focus to protect infrastructure. All these operations were nearly seamless, with multiple organizations assisting in a variety of capacities. The operation for the main unit saw 48 personnel come together from 13 different organizations. The personnel were split into three operational divisions, with a fourth division handling traffic control on both highways. Night patrol and following-day mop-up/patrol divisions were pre-identified to maintain coverage and a presence on the unit for at least two day shifts. Following days were monitored as needed. Firebreak prep, subunit burns completed beforehand, capable crews and a solid operational plan saw the 1438-acre unit be ignited in 4.5 hours (all of which was by hand). This was a remarkable feat given the terrain and 12.2-mile perimeter for crews to cover.

The post burn fire effects of the Heendah Hills Rx Complex are remarkable on fuel reduction (brushpiles, down and dead, and grassland thatch layer) and eastern red cedar mortality. The persistent drought conditions over the past four years aided in the exceptionally low fuel moistures in the

10, 100 and 1000-hour fuels, as well as live eastern red cedar. The Loess Hills Fire Partners have been striving to implement more landscape-scale burn units for over two decades. The completion of this burn unit

was a big undertaking, as well as a springboard for future burn units to expand from through the landform. Coordination, precise planning and being opportunistic with weather conditions all contributed to the success of this effort.



Photo courtesy of Kody Wohlers.

APPENDIX A: PARTICIPANTS, AGENCIES, AND ACRES TREATED

Participating Agencies/Organizations:

Adams County Conservation Board
Blencoe VFD
Bur Oak Land Trust
Carter Lake VFD
Conservation Corps of Iowa/Minnesota
Conservation Districts of Iowa
Fontenelle Forest
Golden Hills RC&D
Harrison County Conservation Board
Iowa Department of Natural Resources]
Parks Division (5 State Parks)
Wildlife Division (2 units)
Loess Hills State Forest
District Forestry (3 districts)
Private Lands
Fire- AD
Conservation & Research
Iowa Natural Heritage Foundation
Iowa State University
Lincoln Parks & Recreation (Nebraska)
Monona County Conservation Board
National Weather Service
Onawa VFD
Pheasants Forever (Iowa, Nebraska, and Minnesota)
Plymouth County Conservation Board
Pottawattamie County Conservation Board
Prairie Land Conservancy (Illinois)
Senator Ernst Office
Sioux City Fire Department
Sioux County Conservation Board
Smithland VFD
Southwest Rural Fire Protection District (Lincoln, NE)
The Nature Conservancy- (Iowa Chapter)
The Nature Conservancy- North American Fire Crew (Colorado)
Turkey Creek Preserve
University of Nebraska- Lincoln
University of Nebraska- Omaha
Upper Iowa University
Van Meter VFD
Waukee Fire Department
Woodbine Fire & Rescue
Woodbury County Conservation Board
Woodbury County EMA

Photo courtesy of Kody Wohlers.





Photo courtesy of Kody Wohlers.

# of Participating Agencies/Orgs:	35
# of Fire Departments:	9
Total # of Participants:	101
Personnel-Hours:	4485 Hours
Equipment Utilized:	<ul style="list-style-type: none"> • 10 Engines • 22 UTVs • Countless Agency Vehicles and Hand Tools

Photo courtesy of Kody Wohlers.



Loess Hills Fire Partners, May 2024

Burn Unit Completion Summary

Burn Unit	Ownership	County	Day Completed	Acres
Heendah Hills - Beck Subunit	DNR - MoRiver Wildlife	Plymouth	2/14/2024	53.5
Heendah Hills - SE Subunit	INHF	Plymouth	3/21/2024	288.5
Heendah Hills - Schenk Subunit	DNR - MoRiver Wildlife	Plymouth	3/28/2024	46.65
Heendah Hills - Wynn Subunit	DNR - MoRiver Wildlife	Plymouth	3/28/2024	35
Heendah Hills - Moseman Sub	DNR - MoRiver Wildlife	Plymouth	3/28/2024	17.6
Heendah Hills Complex	DNR - MoRiver Wildlife	Plymouth	4/5/2024	1438
Oak Ridge 1 - Ulven	Woodbury CCB	Woodbury	4/29/2024	47
Oak Ridge 1 - Tryon	Woodbury CCB	Woodbury	4/29/2024	27
Tompkins - Southwest	INHF	Woodbury	4/29/2024	8
Brown's Lake - North	DNR - MoRiver Wildlife	Woodbury	4/29/2024	20.7
Brown's Lake - SW	DNR - MoRiver Wildlife	Woodbury	4/29/2024	13.6
Brown's Lake - Honeysuckle	DNR - MoRiver Wildlife	Woodbury	4/29/2024	9.7
BKG - Bison Corral	TNC - Iowa	Plymouth	4/29/2024	15
BKG - Hwy 12 Reconstruction	TNC - Iowa	Plymouth	4/29/2024	2
Southwood Memorial Prairie	Woodbury CCB	Woodbury	5/1/2024	19.5
Southwood - Hanson Cabins	Woodbury CCB	Woodbury	5/1/2024	23
Blackbird Bend East	DNR - MoRiver Wildlife	Woodbury	5/1/2024	40
Hathaway	DNR - MoRiver Wildlife	Monona	5/1/2024	108
Tompkins - Southwest	INHF	Woodbury	5/1/2024	59
Table Marsh - Mitchell	DNR MoRiver Wildlife	Monona	5/1/2024	180



Public Org Acres	1601.5
Private Acres	850.25

TOTAL	19 Burn Units
	2451.75 Acres

APPENDIX B: PICTURES

To see the complete photo album, go to:
[Cooperative Burn Week 2024 - Google Photos](#)



The Yellow Division has their division breakout prior to operational shift #1. Day one consists of introductions, crew preparedness and mobilization to designated areas.



Crews familiarize themselves with the equipment they will be utilizing for suppression exercises at Broken Kettle Grassland Preserve. *Photo courtesy of Dale Maxson.*



A participant monitors weather prior to operations. *Photo courtesy of Meredith Roerman.*



All crews focused on suppression tactics and exercises during Operational Shift #1. Mobile attack with water with a tool following is the most effective pursuit in grass fuels. *Photo courtesy of Dale Maxson.*



Crews attack a flanking fire with a leaf blower, bladder bag, and hand tools to build competency in suppression tactics and tool effectiveness. *Photo courtesy of Meredith Roerman.*



A crew member is all smiles as he ignites along a very well prepped firebreak. *Photo courtesy of Jonathan Eerkes.*



Chainsaws are a big part of our everyday work, whether it be TSI, invasive removal, storm debris clean-up or burning snags. Maintenance, operation, and safety were all touched on throughout the week. *Photo courtesy of Mark Vos.*



Sawyers practice their face cuts during chainsaw operations. *Photo courtesy of Jered Bourquin.*



The Pink Division utilizes wet line tactics, various ignition techniques and multiple holding resources to work ignition off a steep ridgeline. *Photo courtesy of Kody Wohlers.*



A locoweed (*Oxytropis lambertii*) blooms on the Tompkins Southwest burn unit as fire works across the ridgeline to aid in preserving this special ecosystem of highly diverse plants. *Photo courtesy of Sarah Bell.*



Varying ignition patterns manipulates fire behavior on a remnant prairie ridge. Three strip ignitors work to build intensity and push the fire deeper into the brush edge. *Photo courtesy of Liam Bell.*



Ignition team set to go! *Photo courtesy of Kody Wohlers.*



Crews get placed at the ignition point in a steep road cut on the North Hathaway unit. The Loess Hills can present odd challenges with the terrain influence on fire behavior. *Photo courtesy of Inga Roen.*



Fire moves across the landscape of the North Hathaway burn unit. *Photo courtesy of Destiny Magee.*



Early February weather conditions allowed for a subunit to be completed for the Heendah Hills Rx Complex, when grass would burn with snow in the woodlands. As the photo dictates, cedars were ripe as well. *Photo courtesy of Kody Wohlers.*



Operational crew for the Heendah Hills Rx Complex on April 5, 2024. *Photo courtesy of Iowa Natural Heritage Foundation.*



Partnering organizations throughout the Loess Hills share equipment (UTVs and engines) throughout the seasons to complete burn units such as CBW and Heendah Hills. *Photo courtesy of Iowa Natural Heritage Foundation.*



Crews work to protect pine trees surrounding a residence on the Heendah Hills Rx Complex. *Photo courtesy of Kody Wohlers.*



Post burn fire effects visible during the Heendah Hills tour. Cedar mortality was one of the main objectives on this unit, which had not seen prescribed fire in several decades. *Photos courtesy of Derek Christoffel.*



The various rainstorms throughout the week provided for beautiful views on the landscape. *Photo courtesy of Jonathan Eerkes.*