

Nachusa Grasslands Prescribed Fire Crew Summary Report



For fires completed from Fall 2015 through Spring 2016

By Bill Kleiman, The Nature Conservancy

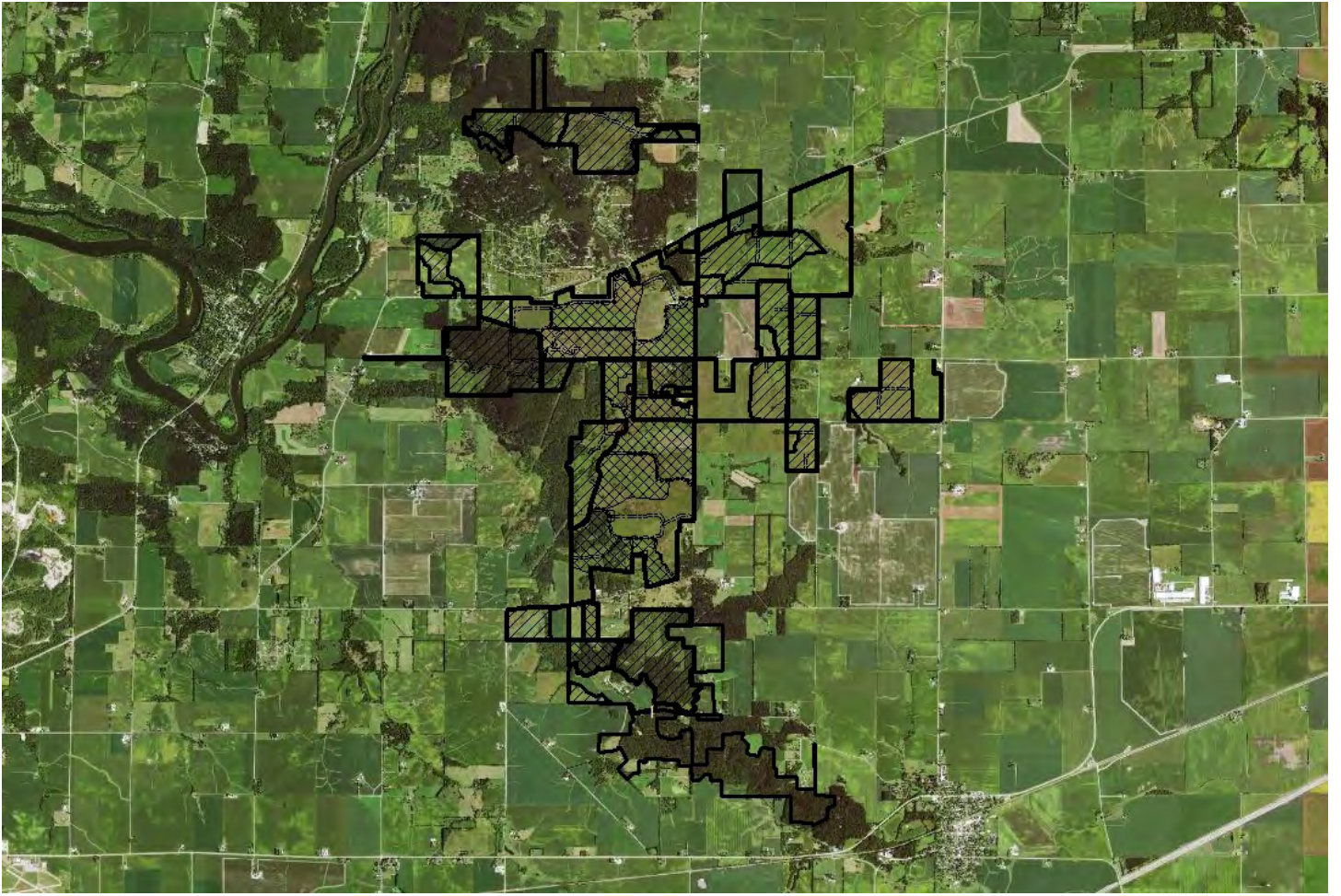
April 25, 2016

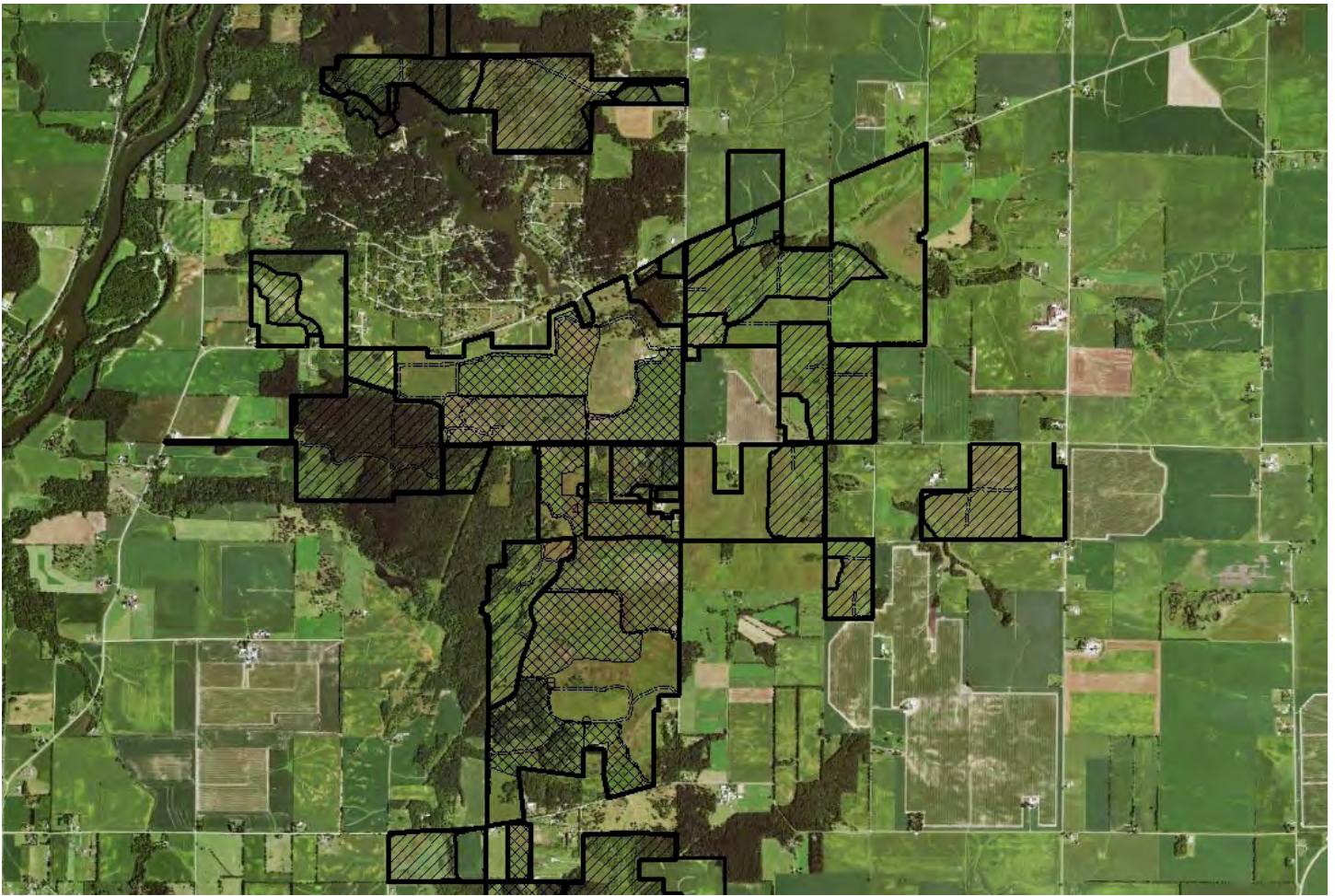
Take a few minutes to check out our fire season. Photos, maps, and lessons learned.

[Feel free to share this with your colleagues.](#)

- We produced the [Illinois Fire Needs Assessment](#), the first systematic report in Illinois which documents the number of acres being burned annually and identifying how many acres need to burn annually to maintain and restore ecosystem health. The Assessment is a call to action for land managers, legislators and the general public. Help us spread the word by reading and sharing the Assessment.

In maps below our fires done are shown as single and cross hatched





Fires done by Nachusa Grasslands crew from Fall 2015 to Spring 2016

- We burned all the units we aimed to do, but this was a cool and wet spring and the woodland units were greening up by the time the weather was hot and dry, so we had a few woods that would not hold fire.

Unit Name	Burn boss	Date	Acres TNC	Acres others	Temp high	Humidity low	Wind high	Crew size	Comment
CCK	BK	11/3/2015	156		63	72	10S	15	blackened 50%, 4 trainees
Big Jump (corn stubble)	BK	11/4/2015	12		68	65	7S	4	preparation fire before plantings new prairie
Senger (corn stubble)	BK	11/7/2015	29		50	50	15 WNW	6	
Carpenter	BK	11/15/2015	55		61	41	14 SW	10	90% black
Sand Farm	BK	3/6/2016	154		52	56	18 S	11	90% black
Big Jump prairie (Orland)	BK	3/11/2016	182		56	51	7 SE	13	Chantalle E and Bill B at Amboy Marsh. 3 TNC media with us Phil, Shawn, Ferran
Main HQ to Yellow House	BK	3/11/2016	196		55	62	7 SE	13	Weather was wetter than predicted, but still 90% black

Unit Name	Burn boss	Date	Acres TNC	Acres others	Temp high	Humidity low	Wind high	Crew size	Comment
FCNA-N plantings	Russell Blogg	4/13/2016		22	54	38	9 SSE	19	assist
FCNA-N of Creek, W of Twist	Russell Blogg	4/13/2016		55	54	38	9 SSE	19	assist
FCNA-N of Creek, East of Twist	Russell Blogg	4/13/2016		240	54	38	9 SSE	19	assist
FCNA-S of creek, W of Twist	Russell Blogg	4/13/2016		19	54	38	9 SSE	19	assist
Castle Rock SP (Fell S NP)	Brad Semel	4/13/2016		300	54	38	9 SSE		Assist from Indian Boundary Preserve staff: Stuart G, Elyse L, Mary A
DNR White Pines SF	Duane Ambroz	4/15/2016		45	60	40	10 S		assist Kaleb, Phil, Stuart N
Total acres			2,410	986			Average crew size:	11	
# fire we assisted on partner lands	8								
Total Nachusa land	2,410								
Total burn units	34								
Burn units at Nachusa	26								
Average burn unit size at NG	93								
Number of burn days	18								

Why we burn:

For eons, landscape fires occurred on our planet, the dried plants and our abundant planetary oxygen requiring just a spark to start a landscape fire. Plants and animals evolved to not just tolerate, but depend on, these fires. Humans have lived and used fire since our beginnings. In the Midwest, Native Americans were setting frequent landscape fires to attract game, keep woodlands and grasslands open and easy to walk through. Fire would have stimulated a rich ground cover of plants that people harvested for their fruits, seeds, roots, and fiber. The natural landscape that we all inherited is dependent on fire for its health. In our modern world our natural areas are fragmented and need our vigorous help to set prescribed fires.

In short, we use prescribed fire to restore and maintain the health of our prairies, woodlands and wetlands.

Nachusa Fire Crew:

The following are Crew who participated this year (let me know if I missed you)

<u>First name</u>	<u>Last Name</u>	<u># of fires</u>	<u>Comments</u>
Duane	Ambroz	3	DNR DHB
Mary	Anicich	1	IBP TNC
Jeremy	Ansel	2	
John	Ayres	1	
Heather	Baker	1	
Kaleb	Baker	10	
Ryan	Blackburn	4	
Russell	Blogg	3	DNR DHB
Eric	Boewe	3	NIU intern
Bill	Bowes	9	
Dale	Bowman	2	Chicago Sun Times reporter
Bernie	Buchholz	17	
Mike	Carr	10	
Jeff	Cologna	6	Rookie year!
Cody	Considine	18	
Damian	Considine	3	
Ron	Deters	9	
Gwen	Deters	2	
Chantalle	Edmunds	11	
Kim	Elsenbroeck	1	
Brandon	FCNA	2	
Jocelyn	Frazelle	5	
Stewart	Goldman	1	IBP NEIU
Kirk	Hallowell	10	
John	Heneghan	22	
Jake	Henry	2	
Wes	Herwig	3	
Nathan	Huff	1	
Greg	Hunter	3	Dixon PD
Kevin	Kaltenbach	1	
Monika	Kastle	2	
Bill	Kleiman	26	342 as burn boss
Susan	Kleiman	19	
Leah	Kleiman	3	
Travis	Kuntzleman	7	
Dave	Lawson	6	
Elyse	Leannais	1	IBP TNC
Laura	Marks	2	Byron FP
Dale	Maxson	1	Iowa TNC
Mike	McCall	1	
Al	Meier	1	
Phil	Nagorny	14	
Stuart	Nissenbaum	2	NIU intern
Don	Panozzo	2	

Tom	Richter	1	
Mike	Saxton	6	
Paul	Say	14	Rookie year!
Tim	Smith	3	Dixon PD
Ben	Stone	1	NIU intern
Paul	Swanson	3	
Rich	Walker	2	Byron FP
Bryon	Walters	1	
Bill	Webb	1	
Austin	Webb	2	Byron FP
Hayden	Wurtz	4	
TOTAL CREW		55	

John Heneghan again was key to setting up our fire equipment before fire season and then coming early to every fire to help us be ready for the fire crew briefing.



Even with repeated fire we need brush mowing in various areas that had been fire starved for decades. This mower is quite the tool and a winter snow squall made it pretty out too. See below what it can do.



On the new Senger tract there was a line of invasive olive and honeysuckle shrubs that looked like this from the cab of the mower. The ground is so shaded it is mostly bare soil.



Before: I put the blue dot on a tree. See below for what a half-hour of mowing did.



After: Yes, it looks cleaner, but tidy is not the point. We knocked down a lot of invasive brush. This cleared area has no native plants so we will spray broadleaf herbicide this summer when the brush comes up from the roots. This will help us control the invasive brush and not let it spread into the adjacent 35-acres of high diversity prairie we just planted.



Mike Carr patrolling fire line. We like these little vehicles for being nimble and light weight on damp ground. Some models are too noisy, such as this Gator 825.

Mike is awesome too, and not too noisy.



The right equipment makes the work go faster and easier:

We mounted two low-volume sprayer tips to the front bumper to spray water when we want to ignite the fire from a wet edge on the perimeter. We call this "wet lining".

The parts are all standard plumbing fittings. The water flow can be turned on from a quarter-turn valve we mounted to the ceiling of the cab. These tips spray 1.5 gallons per minute. Next year we will try about 1 gpm. We add about a half a cup of class A foam (soap) to the tank to make the water perform better.



Phil Nagorny igniting part of the North Bison Unit. Phil is on our hired crew all this summer.



Kaleb Baker, our other hired fire crew member, standing next to one of two-dozen grazing exclosures we have on the preserve for the study of grazing effects on vegetation. Kaleb was with us last year and will be this year's summer crew boss.



We hired Mike Saxton for six weeks to organize our fire data and write our new [Illinois Fire Needs Assessment](#). Mike is now with the Missouri Botanic Garden as their full time and permanent Ecological Restoration Specialist.



Smoke whirl. Byron Forest Preserve shared this photo of a phenomena on fires on sunny, low wind days where the heat of the fire is rising in a tight spiral. These whirls often make a noise like a jet passing by.

A few recommendations from the [Illinois Fire Needs Assessment](#):

- Funding for prescribed fire programs must be increased to meet land management goals
- Promote a culture of fire wherein the use of prescribed fire is valued, supported and expected
- During fire season, agency staff must be focused on fire programs with an All Hands on Deck mentality
- Volunteers are an asset and can support fire programs in many capacities
- Private land owners need support of agency resources and mentorship from experienced programs
- Land managers need more equipment to efficiently and safely implement fire
- Burn units must be large and encompass all habitat types with well prepped, wide fire breaks
- Agencies need to write comprehensive fire action plans

Hold the date: Fire Ecology workshop, June 14 and 15, 2016 in southern Iowa and northern Missouri with the Tallgrass Prairie and Oak Savanna Fire Science Consortium. <http://www.tposfirescience.org/field-trips/>



This is a tractor mounted leaf blower. It blows leaves from woodland fire breaks quickly.

In our grassland units we mow the fire breaks, then use a hay rake to move the mowed vegetation to the side. This leaf blower can then scatter the windrow into the unit so we don't have that hot and smoky burning windrow during the fire.

Good fires come from people, equipment, and priorities.

Follow our [Illinois Prescribed Fire Council on Facebook](#)



Bison and fire:

The bison are calm when we are burning units within their areas. We check to see they are not in our unit. We moved a few bulls out of one burn unit by slowly approaching them with a few UTVs. That same burn had part of the herd following behind a crew as they ignited line. Just curious.

Earlier fire reports for Nachusa are here: <http://www.nachusagrasslands.org/controlled-burns.html>

The end. We learn from each other. Share this report with others.

- Bill Kleiman