

Nachusa Grasslands Prescribed Fire Program

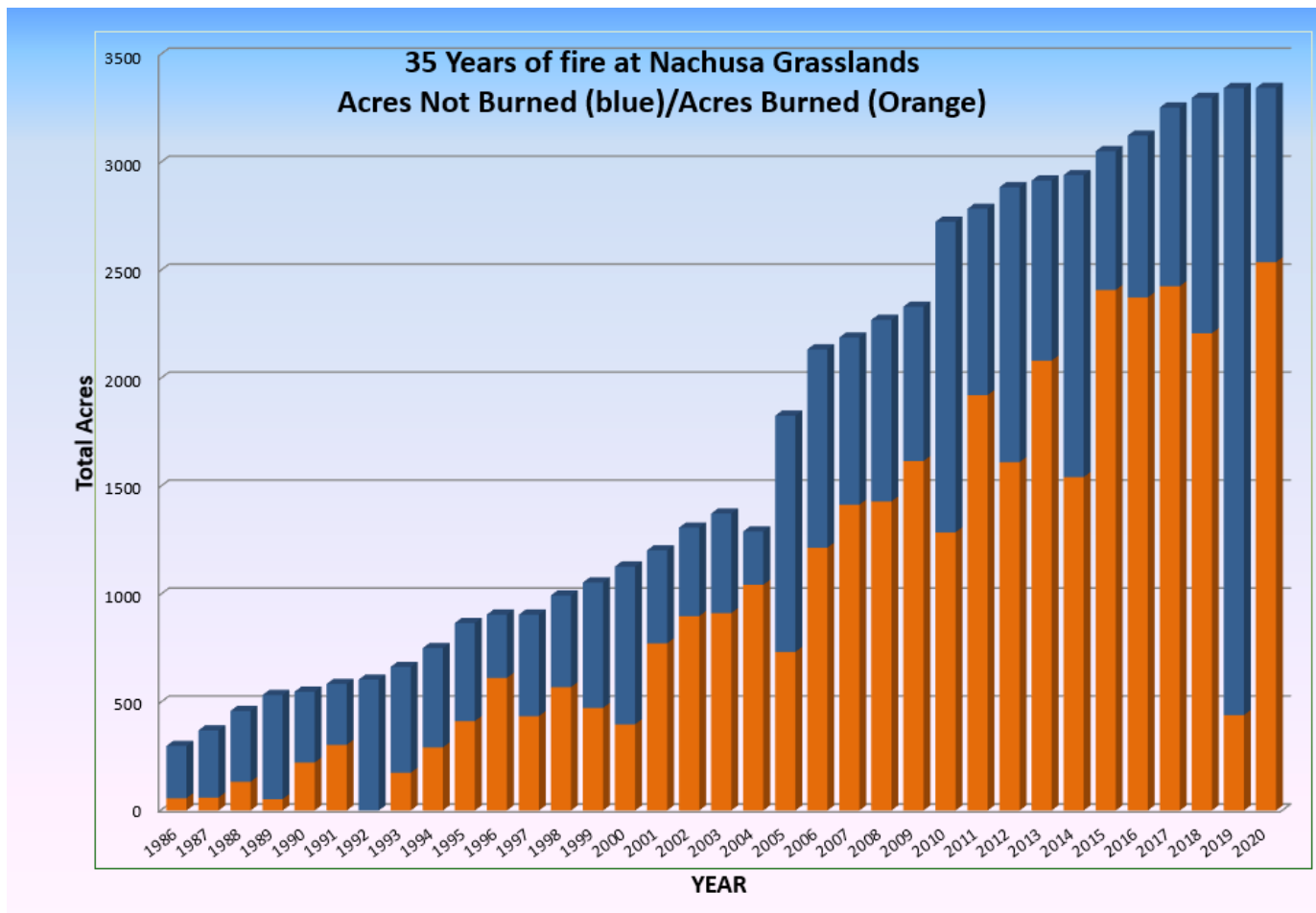
Summary Report and lessons learned Fall 2020 through Spring 2021

By Bill Kleiman, The Nature Conservancy May 10, 2021 Share with your colleagues



Photo above is fire crossing the Stonebarn Savanna and moving through the oak woods with a dry north wind.

Bar graph below shows our long fire history. We bounced back from the 2019 pandemic with a record of acres burned.



Comparing this year to the past 34 years:

This year, we set a high record of 2,539-acres burned at Nachusa and an additional 507-acres of assists.

We had 39 total burn units, which is quite high for us, with 25 of those fires at Nachusa.

The average burn unit acreage was 101 acres which is on the high side.

The average crew size was 10, which is a typical of most years.

We had 26 burn days, which is a record. Our average number of burn days is 18. So the good number of fire weather days likely accounts for our record number of acres burned, as much as I would rather describe our hard work.

We burn weekends and weekdays. Historically, we burn the same amount on any of the 7 days.

This year we had 11 days with south winds, 6 days with north winds, 5 days with west winds, and one day with east winds.

We are burning our oak woods almost annually.

We have perhaps 30 miles of fire breaks at Nachusa. The perimeter of all the burn units is 50 miles, but some of those fire breaks are shared between burn units and some are roadsides.

To see the spreadsheet with this data go here: <https://tnc.box.com/s/pssqmxk7zz0jjwofa1csj0shtrm07tfg>



We built new pumper units for a UTV and truck. I made a detailed how to shop for, or assemble your own, pumper unit here:

https://www.illinoisprescribedfirecouncil.org/uploads/1/0/5/8/105892833/assembling_a_pumper_unit_nov_2020.pdf

2020 2021 Fires Accomplished at Nachusa

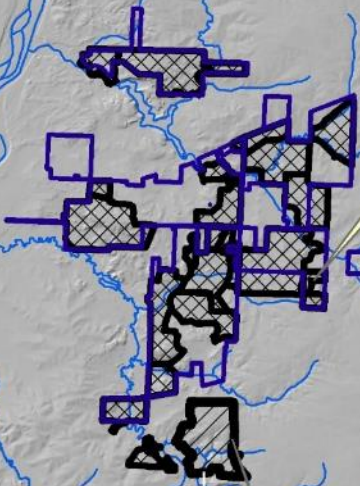
Soderholm Vassalo



MRCP Hill Site



Nachusa Grasslands



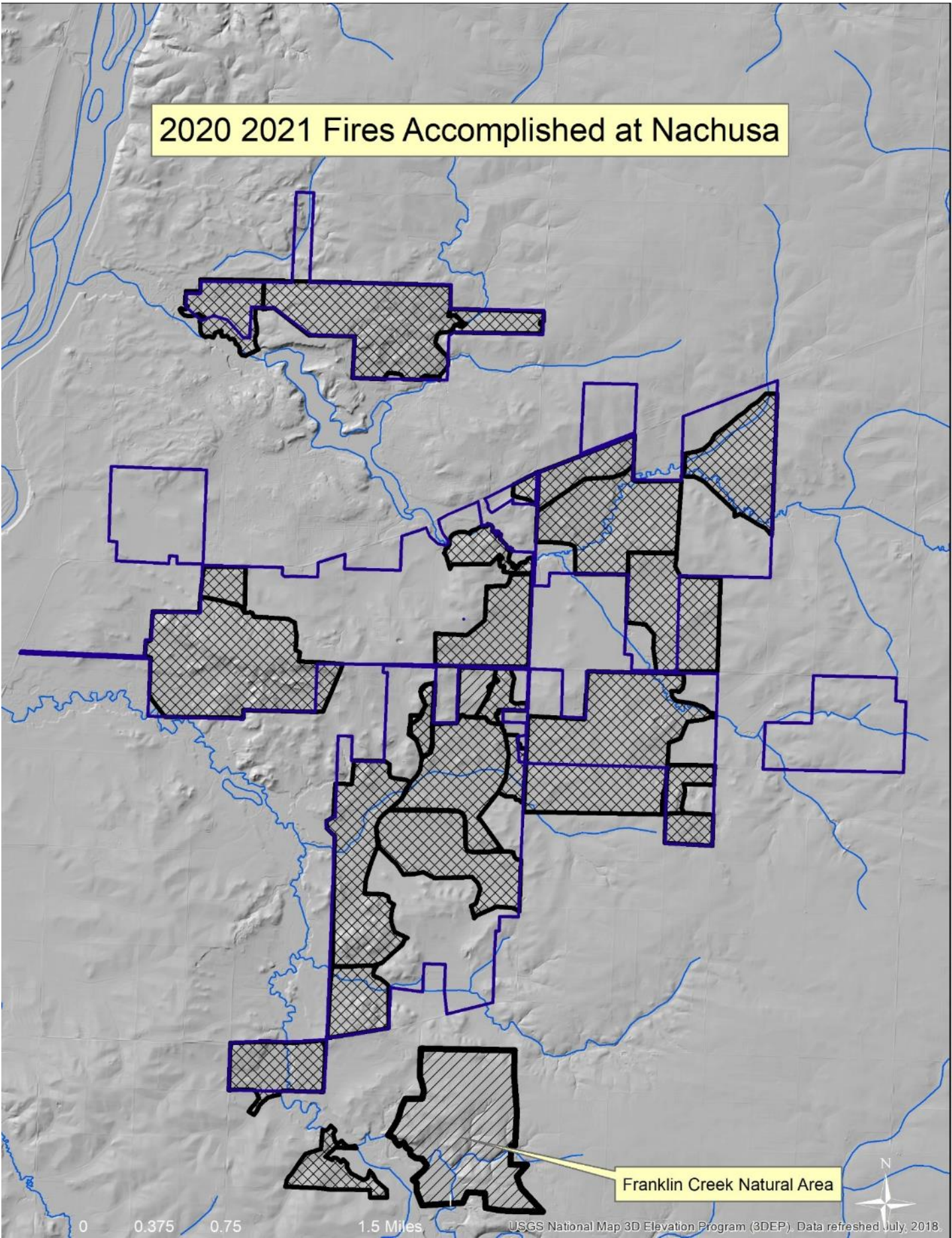
Franklin Creek Natural Area

0 1.25 2.5 5 Miles

USGS National Map 3D Elevation Program (3DEP). Data refreshed July, 2018.



2020 2021 Fires Accomplished at Nachusa



Franklin Creek Natural Area

0 0.375 0.75

1.5 Miles

USGS National Map 3D Elevation Program (3DEP). Data refreshed July, 2018.



Crew discussing the new pumper units (water sprayers) before putting them to use.



Stonebarn Savanna fire photo by Dee Hudson. We burn the oak woods to thin the brush which brings sunlight and airflow to the woods that supports the growth of young oaks and ground layer flowers, sedges and grasses.



Susan Kleiman wetting down the edge of a fire line. This water is spraying at about 300 psi at 9 gpm from a half inch hose and a JD9 nozzle. This kind of output works well for such fire work. Photo by Dee Hudson.



This is a flail mower, rather than a rotary mower. This is a new tool for us. It mows fire breaks very short and shreds the material.



Above I am holding a hammer tooth on the flail mower. Ask me about this mower in a year but so far it is holding up well to mowing fire breaks with occasional rocks.



On the left is the result of our batwing rotary mower at its lowest setting. On the right is the new flail mower. The fresh snow shows how the flail mower cuts short and shreds the material. This makes a better fire break.



This fire break was mowed with a batwing rotary mower. Then the center was flail mowed. The break was hay raked and I can see the windrows on each side. The crew is spraying water to make a "wet line" using our high pressure Hypro D30 water sprayer. The long line held with no creeping fires. Leaning on a rake is line boss Kate Green from Indiana TNC helping us for the day.



Good fire breaks need modest amounts of water to keep the fire from creeping across.



It is nice to have a chainsaw with the tractor that is mowing fire breaks. This chainsaw sits in a “Saw Haul” scabbard. Photo below is of the scabbard bolted to the fender.





This was a sublime few minutes where I walked a torch along an internal lane to ignite some of the 300-acre Stonebarn Savanna unit.



We don't want dead trees near the fire break to catch fire. Raking leaves and sticks from around dead trees helps.

Fires done by Nachusa Grasslands crew from Fall 2020 to Spring 2021

Date	Day of week	Owners hip	Unit Name	Burn boss	Acres TNC	Acres others	Temp high	Humidity low	Wind direction	Wind speed	Crew size	Crew besides BB, first two are line bosses
11/3/2021	Tu	TNC	IBP Dropseed	Bill Kleiman		10						IBP
11/3/2021	Tu	TNC	IBP Markham S Unit A	Bill Kleiman		10						IBP
11/4/2020	W	TNC	TCP N	Bill Kleiman	27		70	40	SW	18	13	<i>Kate Green, Shane Tripp, Amanda Anderson, Emilie Pfeiffer, Emma Dombrow, Paul Mellon, Gwen Deters, Joe R. Morgan Anderson, Paul Swanson, Khushali Desai, Ron Deters</i>
11/6/2020	F	TNC	TCP S	Bill Kleiman	26		73	49	SW	15	6	<i>One crew. Susan K, Anna Scheidel, Kevin Scheiwiller, Khushali Desai, Mickey Cardenas. Chicago Sun Time Dale Bowman</i>
11/7/2020	Sa	TNC	CCK Gobbler	Bill Kleiman	186		71	43	SW	18	12	<i>Susan K, Kate Green, Travis K, Greg H, Gwen D, Erin Spear, Joe R, Paul Say, Khushali D, Micky Cardenas, Mike Henge.</i>
11/8/2021	Sn	TNC	IBP Markham S Unit B	Bill Kleiman		10						IBP
11/13/2021	F	TNC	IBP Markham E	Bill Kleiman		15						IBP

Date	Day of week	Ownership	Unit Name	Burn boss	Acres TNC	Acres others	Temp high	Humidity low	Wind direction	Wind speed	Crew size	Crew besides BB, first two are line bosses
11/28/2020	Sa	TNC	W Heinkel and 1420	Bill Kleiman	66		49	70	SW	15	11	Susan K, Damian C, Khushali D, Kevin K, Mike Henge, Keith A, Emma Leavens, Paul M, Shane T, Susan Zook
3/12/2021 1	F	TNC	Meiners Wetlands	Bill Kleiman	85		48	53	N	5	8	Bill K, Cody C, Emilie Pfeifer, Susan K, Elizabeth B, Shane T, Tony Del Valle', Mike Carr
3/12/2021 2	F	TNC	Senger	Bill Kleiman	27		49	52	N	6	7	Shane Tripp, Susan K, Emilie Pfeifer, Elizabeth B, Tony Del Valle', Mike Carr
3/13/2021 1	Sa	TNC	Main Center	Bill Kleiman	142		56	40	SW	4	10	Bill K, Mike Carr, Dave B, Paul M, Tim S, Stewart P, Mike Henge, Teresa Smith, Kevin Scheiwiller, Joe R
3/13/2021 2	Sa	TNC	Main North	Bill Kleiman	150		54	43	S	4	9	Bill K, Mike Carr, Dave B, Paul M, Tim S, Stewart P, Mike Henge, Teresa Smith, Joe R
3/19/2021	F	TNC	CCK East	Cody Considine	130		45	38	E	13	13	Elizabeth, Damian C, Dave B, Paul M, Bill K, Emma Leavens, Keith A, Emilie P, Tim S, Anna S, Joe R.
3/20/2021 1	Sa	TNC	Big Jump main	Bill Kleiman	227		45	58	S	10	14	Mike Carr, Susan Kleiman, Travis K, Zach Storck, Mike H, Stephen Combs, Tim S, Dave B, Stew P, Bill Richmond, Teresa S, Molly Sedig.

Date	Day of week	Ownership	Unit Name	Burn boss	Acres TNC	Acres others	Temp high	Humidity low	Wind direction	Wind speed	Crew size	Crew besides BB, first two are line bosses
3/22/2021	M	TNC	Holland Prairie	Cody Considine	100		58	47	Var	3	10	Leah K, Shane T, Paul M, Emelie P, Anna S, Elizabeth B, Susan K, Bill K, Joe R
3/30/2021	Tu	TNC	Sand Farm	Bill Kleiman	151		58	35	W	17	10	Emelie Pfeiffer, Shane Tripp, Paul M, Susa K, Anna S, Kevin S, Zach S, Dave B, Joe R
3/31/2021	W	TNC	Hotchkiss Nichols	Cody Considine	326		41	39	WNW	17	11	Elizabeth B, Mike C, Paul M, Susan K, Anna S, Emelie P, Dee H, Shane T, Zach S, Joe R
3/31/2021	W	MRCP	Hill	Austin Webb		70						Bill K, Damian, Austin W, Randy S, Tim S, Greg H, Jim Duis, Dave Brewer
4/1/2021	Th	TNC	Stonebarn Savanna	Bill Kleiman	300		34	35	N	14	12	Cody C, Shane T, Paul M, Susan K, Anna S, Emelie P, Mike C, Dee H, Elizabeth B, Stwe P, Joe, R, observer Andy Moore
4/2/2021	F	DNR	FCNA E Twist N Cr	Russ Blogg		287	45	28	S	12	11	Bill K, Cody C, Paul Say, Susan K, Elizabeth B, Tony De Valle, Paul M, Anna S, Mike Ca Mike H, Joe R
4/2/2021	F	DNR	FCNA W Twist N Cr	Russ Blogg		55	45	28	S	12	11	Bill K, Cody C, Paul Say, Susan K, Elizabeth B, Anna S, Joe R
4/4/2021	Sn	TNC	201	Bill Kleiman	22		70	31	SE	10	11	Susan K, Kaleb B, Paul Say, Bill R, Tim S, Mickey C, Paul M, Teresa S, Pati V, Kevin S



Fox snake found in the black a week after this fire.

Nachusa Grasslands			
Crew who participated in Fall 2020 to Spring 2021 prescribed fires			
(Let me know if I missed you.)			
<u>First name</u>	<u>Last Name</u>	<u># of fires</u>	<u>Comments</u>
Amanda	Anderson	1	
Morgan	Anderson	3	
Keith	Anderson	5	
Elizabeth	Bach	13	
Curt	Braun	2	
Dave	Brewer	7	New Nachusa crew
Mickey	Cardenas	6	
Mike	Carr	10	
Stephen	Combs	2	
Cody	Considine	3 bb +5	
Damian	Considine	3	
Tony	Del Valle	3	
Khushali	Desai	5	
Gwen	Deters	4	
Ron	Deters	3	
Emma	Dombrow	4	
Kate	Green	3	
Mike	Heng	8	
Dee	Hudson	2	
Greg	Hunter	3	
Bill	Kleiman	26 bb +1	435 times burn boss
Susan	Kleiman	22	
Eriko	Kojima	1	

Travis	Kuntzelman	3	
Emma	Leavens	1	
Jim	McPherson	1	
Paul	Mellen	17	
Stew	Pegenstecher	7	
Emily	Pfeiffer	6	
Joe	Richardson	16	
Bill	Richmond	5	
Paul	Say	5	
Anna	Scheidel	19	
Kevin	Scheiwiller	5	
Molly	Sedig	1	
Tim	Smith	10	
Teresa	Smith	2	
Paul	Soderholm	1	
Erin	Spear	1	
Zach	Storc	13	
Paul	Swanson	5	
Shane	Tripp	9	
Pati	Vitt	2	
Bryon	Walters	3	
James	Warner	1	
Oran	Wilder	1	
Susan	Zook	1	
TOTAL CREW		45	



Meiners Wetlands panorama



Stuck saw

This report is stored with other annual reports at <https://www.nachusagrasslands.org/>

The Illinois Prescribed Fire Council website has equipment reviews, training announcements, and other good info. Check it out. <https://www.illinoisprescribedfirecouncil.org/prescribed-burn-reports.html>

Share with your colleagues.

The end.