



United States Department of Agriculture

SPRING 2023

GRASSLANDS NEWS

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PHOTO: Curlew National Grassland by Chris Colt, Wildlife Biologist on the Caribou-Targhee NF-Westside RD



Greetings everyone from Casey Johnson, National Grasslands Manager

The month of May will be here before we know it and I hope you are all excited to attend this year’s National Grassland Managers Meeting hosted by the Butte Valley National Grassland, May 16–18 in Klamath Falls, Oregon.

This year’s meeting has a strong line up of engaging speakers, photo and video contests, door prizes, and captivating landscapes during a field tour. We’re pretty sure you’re not going to want to miss this one!

To make the meeting even more exciting, your National Grasslands Council will again be recognizing employees and partners for their great work in stewarding the National Grasslands. We need your help and nominations to ensure our employees and partners are recognized for their important role in managing our National Grasslands. This is an opportunity to show the collective appreciation and commitment we share for the employees and partners contributing to our National Grasslands. See pages 2 and 3 for more information.



News Brought to you by
The National Grasslands Council
Edited by Linda M. Hiltner





National Grasslands Managers Meeting

** Awards Nomination Form and Categories **



Please give this call for nominations wide distribution. All organizational units with National Grassland administration and research/technology transfer responsibility should look at worthy award recipients and submit nominations by **March 31** using the following form link:

FORM	National Grasslands Management Annual Awards Nomination Form
NOTE:	Use this form to nominate employees and partners for a 2023 National Grassland Award

Nominations are being accepted for the following six award categories (additional details and descriptions about each award are provided in the awards document at the end of the newsletter):

- 1. Prairie Partner Award**
- 2. Grassland Education Award**
- 3. Grassland Leadership Award**
- 4. Grasslands Conservation Award**
- 5. Grasslands Research and Technology Award**
- 6. Tony DeToy Memorial Unit Award**

DEADLINE FOR NOMINATIONS: Friday, March 31

We also want to remind everyone of the opportunity **to serve on the National Grassland Council.**

The National Grassland Council was chartered in 1996 and has been representing National Grassland interests on many issues since. Membership on the Council changes as members rotate off the Council after a four-year term. National Grassland Council members are expected to attend monthly council meetings, two of which are typically in person with the remainder being video calls. There are additional opportunities to contribute on various subcommittees and special projects.

We are seeking applications to replace two outgoing members of the Council. Applications will be evaluated, and selections announced during the 2023 National Grassland Manager's Meeting.

Interested applicants should submit their application by **March 31** using the form link provided in the poster at the end of the newsletter. The applicant's supervisor must be supportive of their participation in generally two in-person meetings per year and other special work group involvement. To ensure this, a **short statement from the applicant's supervisor** using the National Grasslands Council Application Supervisor Approval form is required by **March 31** as well. Please see the **JOIN THE NATIONAL GRASSLANDS COUNCIL!** poster at the end of the newsletter for more information on submissions.

Please contact Casey Johnson, National Grasslands Manager at casey.johnsons@usda.gov if you have any questions.

Editor's Note: The last few pages of this newsletter contain information on the ***Photo & Video Contest*** and the ***Remember to Save the Date*** flier



National Grasslands Managers Awards



AWARD CATEGORY DESCRIPTIONS

Nominations are being accepted for the following six award categories:

Prairie Partner Award – This award is for external partners that have demonstrated resource stewardship, a willingness to provide funding and other resources to Grassland projects and have produced innovative practices and results.

Grassland Education Award – This award is for an individual, team, or unit that has reached out to provide conservation education on National Grassland history, mission, resources, and programs. Both Forest Service employees and external partners qualify. The recipient of this award will be selected based upon innovation and scope of outreach.

Grassland Leadership Award – This award is for a Forest Service employee who has gone above and beyond their position to promote National Grasslands to such a degree that their energy and leadership is influencing others. The recipient of this award will be selected based upon their achievements in land stewardship, their ability to collaborate with all grassland users, and their enthusiasm for exciting others to excellence.

Grasslands Conservation Award – This award is for a Forest Service group, team, or unit that has demonstrated excellence in on-the-ground management of national grasslands. The recipient will be selected based upon successful conservation implementation.

Grasslands Research and Technology Award – This award is for an individual, team, or unit that has gone above and beyond their position to provide exceptional research and/or technology transfer support to grassland managers. Both Forest Service employees and external partners qualify. The award recipient will be selected based upon innovativeness of the research or technology transfer, the quality of their partnerships with grassland managers, and the ability to document the success of their efforts on the grasslands.



Tony DeToy Memorial Unit Award – This award is for a Forest Service Ranger District within the National Grasslands (i.e. district) which exemplifies innovative and effective land management and public service. The unit will receive a traveling trophy for public display along with a permanent plaque.





National Grasslands Commemorative Apparel



Hello Grasslanders!

I hope you all are getting excited for this year's National Grassland Managers Meeting which will be hosted by the Butte Valley National Grassland May 16 –18.

A few of us decided to volunteer and design some National Grasslands commemorative gear and make it available to anyone who would like to sport some grasslands swag and show off their appreciation and enthusiasm for the National Grasslands.

Use the links below to view the types of products available and the associated prices *The direct order links will enable you to pay direct and have your purchased items shipped directly to you.*

Black sweat shirt: <https://www.customink.com/g/gyb0-00-cq-n7aa>
Grass on front shirt: <https://www.customink.com/g/gyb0-00-cq-n7ac>
T-shirts and Hoodies: <https://www.customink.com/g/gyb0-00cq-n7ad>
Hat: <https://www.customink.com/g/gyb0-00cq-n870>

Please note, this is not a fundraiser and the products are available for direct purchase at cost. Please share the catalog widely with anyone you feel might like to get their hands on some Commemorative National Grasslands Gear.

The opportunity to order will end on April 21, 2023. Everyone should be able to receive their items in plenty of time to show them off at this year's National Grassland Managers meeting.





National Grassland in the Spotlight

Curlew National Grassland



Kim Obele has been District Ranger on the Westside Ranger District and Curlew National Grassland (Caribou-Targhee National Forest) since 2020.

She grew up in Texas and came to the Forest Service as a second career in 2005, when she started as a Rangeland Management Specialist on the Pawnee National Grassland. After a few changes over time, she took a District Ranger Detail on the Comanche National Grassland in 2016.

Kim stated, “I started my Forest Service career on a grassland, started my line officer career on a grassland – and now I oversee both a mountain district and the only grassland in Region 4 – the Curlew. My favorite part of the Curlew is that it is so different from the other grasslands I’ve worked on due to the sagebrush component supporting the Sage Grouse.”



Curlew National Grassland (NG) is in southeastern Idaho between the towns of Malad City directly east and Pocatello to the northeast. The only National Grassland in the Intermountain Region (Region 4), Curlew NG was originally established to improve soils and vegetation.



Photo by Curlew NG staff

- ◆ Primarily in Oneida and Power Counties, Curlew NG was once inhabited by the tribes of Shoshone and Bannock people prior to the arrival of settlers.
- ◆ Comprising over 47,500 acres of sagebrush and non-native seeded grasses on these public land, Curlew NG is 14th largest of the 20 NGs and the Tallgrass Prairie.
- ◆ Managed for recreation resources, to promote and demonstrate grassland agriculture, and for sustained-yield management of forage, fish and wildlife, Curlew NG supports a variety of birds and wildlife, especially sage and sharp-tailed grouse.
- ◆ Curlew is a birder’s destination to observe the grouse “dance” on their breeding grounds from March through May.
- ◆ Stone Reservoir is popular for rainbow trout, large-mouth bass and perch fishing.
- ◆ Camping is available at the adjacent Curlew Campground and sits at 4,700 feet.



Chris Cole, wildlife biologist, monitoring for sage grouse habitat

- ◆ From 1849–1855, sections of the California Trail carried hundreds of thousands of travelers from Independence, MO, to northern California. The trail crossed through Idaho and what is now Curlew NG. Looking for a more efficient route, Benoni Hudspeth and John Myers began the Hudspeth Cutoff route in 1849. **(Please see the articles on *Curlew National Grassland—Historic Sites* and the *National Grasslands and Register of National Historic Places*).**
- ◆ In the late 1800s to early 1900s, settlers came to the area for agricultural opportunities and built homesteads on their 160 acre sites.
- ◆ These abandoned homesteads can be seen along the Scenic Drive through Curlew NG.



RESTORATION PROJECTS ON CURLEW NG

- ◆ Curlew National Grassland Area Restoration projects were outlined in the *FS-NRCS Joint Chiefs’ Landscape Restoration Project (LRP)* proposal in FY 2016.
- ◆ These projects were jointly developed with the US Forest Service, NRCS staff and private landowners.
- ◆ **Please see the next page for details on the Curlew Rock Creek Restoration projects.**

Online resources:

<https://idahohighcountry.org/item/curlew-national-grasslands/>
<https://www.fs.usda.gov/detail/ctmf/about-forest/districts/?cid=stelprdb5167546>
<https://www.fs.usda.gov/recarea/ctmf/recarea/?recid=53929>

Photos: Windmill and grouse photos:

<https://www.fs.usda.gov/detail/ctmf/about-forest/districts/?cid=stelprdb5167546>

Historic photos provided by Curlew NG staff

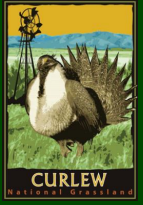
Current homestead photo found at <https://www.onlyinyourstate.com/idaho/curlew-national-grasslands-id/> by Max Rae



National Grassland in the Spotlight

Curlew National Grassland

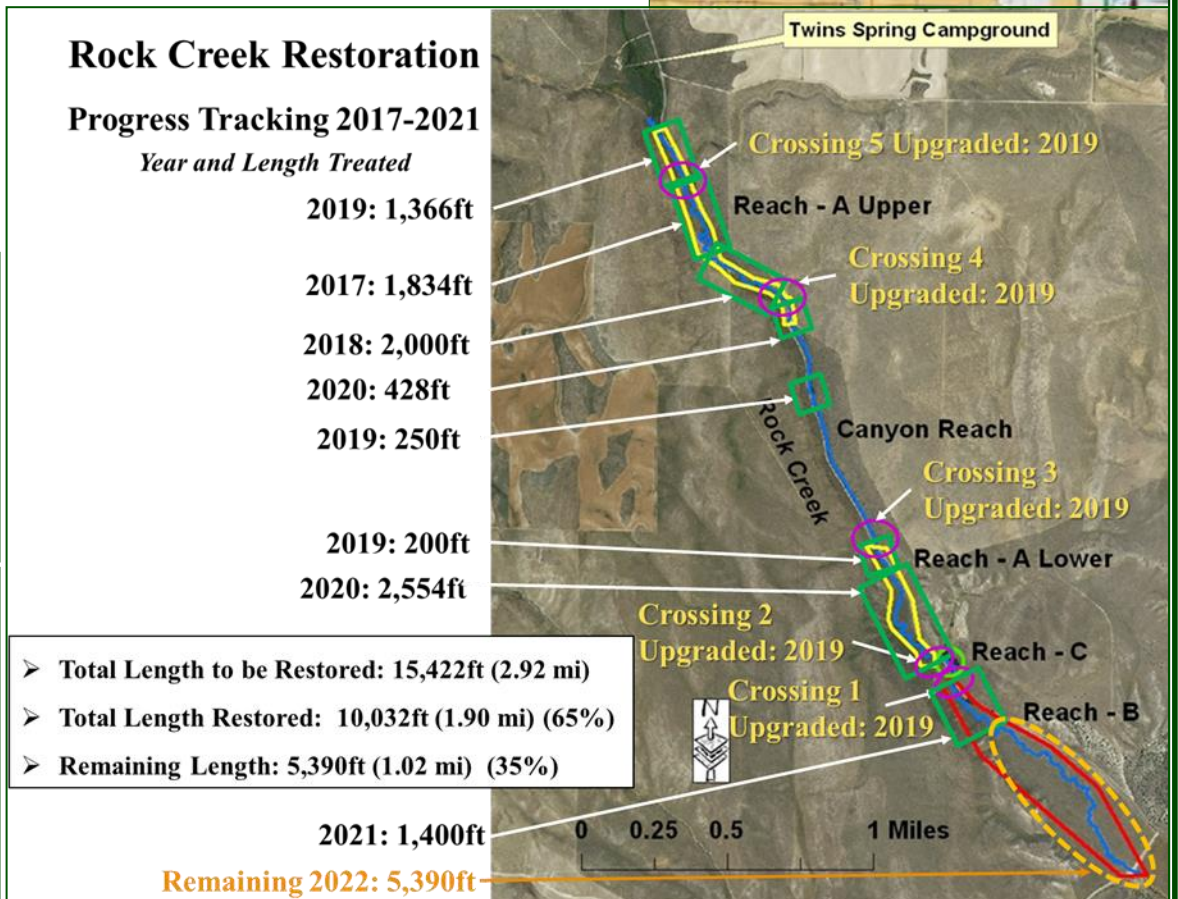
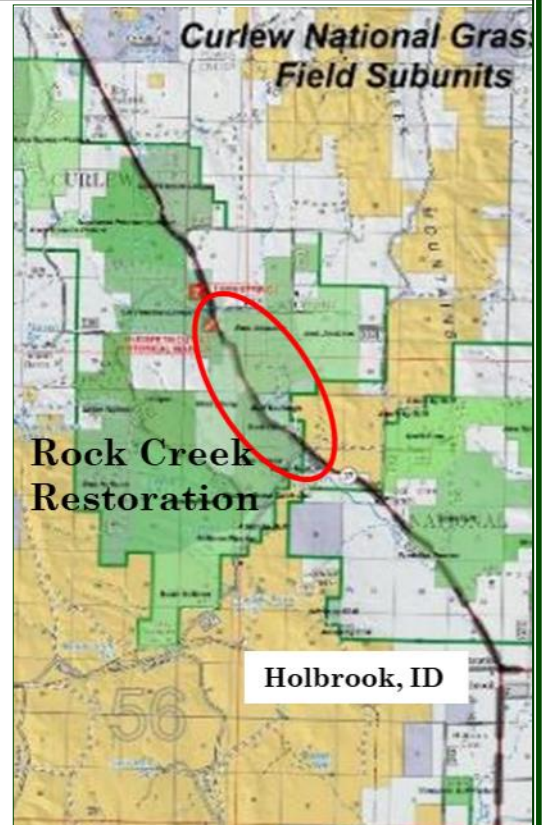
JOINT CHIEF'S LANDSCAPE RESTORATION PROJECT



Curlew National Grassland's Rock Creek Restoration projects are one of over 50 Joint Chiefs' Landscape Restoration Project partnerships in the nation. This particular Restoration Partnership is a collaboration between the US Forest Service and USDA's Natural Resources Conservation Service (NRCS), many partners and local private landowners. A project goal was to improve the health, resilience and sustainability of areas where public forests and grasslands connect to privately owned lands. Another goal was to "holistically improve Watershed and Natural Resource Conditions." *The map on the right shows the section of Rock Creek through Curlew NG and is situated in the northern end of the Great Basin. The map below shows the various stages of the restoration project.*

Aspects of the Rock Creek Restoration projects included:

- **Hwy 37 Improvements:** to repair the narrow, winding stretch of roadway threatened by erosion undercuts and the 5 undersized culverts/crossings 1-4
- **Riparian/Wildlife Enhancement:** to treat 15,709' (3.0 miles) on Curlew and ~5,000' on downstream private lands
- **Deep Creek Streambank Stabilization:** heavy equipment and bio-engineering techniques were used to re-shape and stabilize 4,150' of steep eroding banks
- **Agricultural/Grazing Practices Improvements:** to improve irrigation systems to reduce water demands from the Creek, use no-till practices and to reduce erosion by installing terraces and sediment basins. Work with the Association to coordinate and rotate grazing, fencing repairs and for exclosures, and to install markers on fences for protection of sage grouse
- **Sagebrush Protection:** to protect sagebrush from wildfire for habitat conservation of sage grouse and other sagebrush-obligate species
- **Russian Olive and Salt Cedar Removal**
- **Recreation Improvements**
- **Public Outreach and Awareness:** videos were produced to air on PBS and YouTube



For more information on Rock Creek Restoration Projects and the Curlew NG, view the videos by clicking on the following links:

- [Restoration](#)
- [Sage grouse](#)
- [History](#)

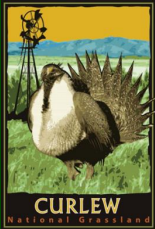
For more information on Curlew NG and contact Westside Ranger District
 4350 Cliffs Drive
 Pocatello, Idaho 83204
 (208) 236-7500
 NGs Website: <https://www.fs.usda.gov/grasslands/>



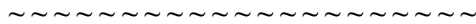
National Grassland in the Spotlight

Curlew National Grassland — Historic Sites

by Steve Armstrong
Forest Archaeologist/Heritage Program Lead



Steve Armstrong is the Forest Archaeologist/Heritage Program Lead for the Caribou-Targhee National Forest and Curlew National Grassland. His research centered around the Twin Springs area of the Curlew National Grassland (CNG) along Idaho State Highway 37. Below are his introductory findings on historic sites on the Curlew.



We have about a dozen documented cultural sites within about a 1 to 2 mile radius of Twin Springs. In this area we have historic sites, such as historic roads and trails (Hudspeth Cutoff, Oregon/California Trail association) and homesteading related activities including corrals, water developments, building foundations, etc.

It appears that outside of the early Oregon Trail routes (ca. 1850), these historic sites generally date to the early 1900s (ca. 1900-1930s). As you can imagine, water was scarce and a prized resource throughout the Curlew. Many of these historic homesteads and associated things are relatively close to water sources.

Quite a few prehistoric/Native American Indian sites are on the Curlew. In the Twin Springs area, are several site types and include a bison kill dating to ca. A. D. 1000 – 1800. Other sites contain lithic scatters where rock, such as obsidian, was worked into various stone tools: knives, projectile points, scraping tools, etc. Camp sites were places where longer term occupations took place, such as near the bison kill to process the animals.

The Curlew area in general has a long history of human activity. Utilized by ancestors of the Shoshone, Bannock, and Paiute tribes and likely others as



Photo from: <https://www.hmdb.org/m.asp?m=124142>

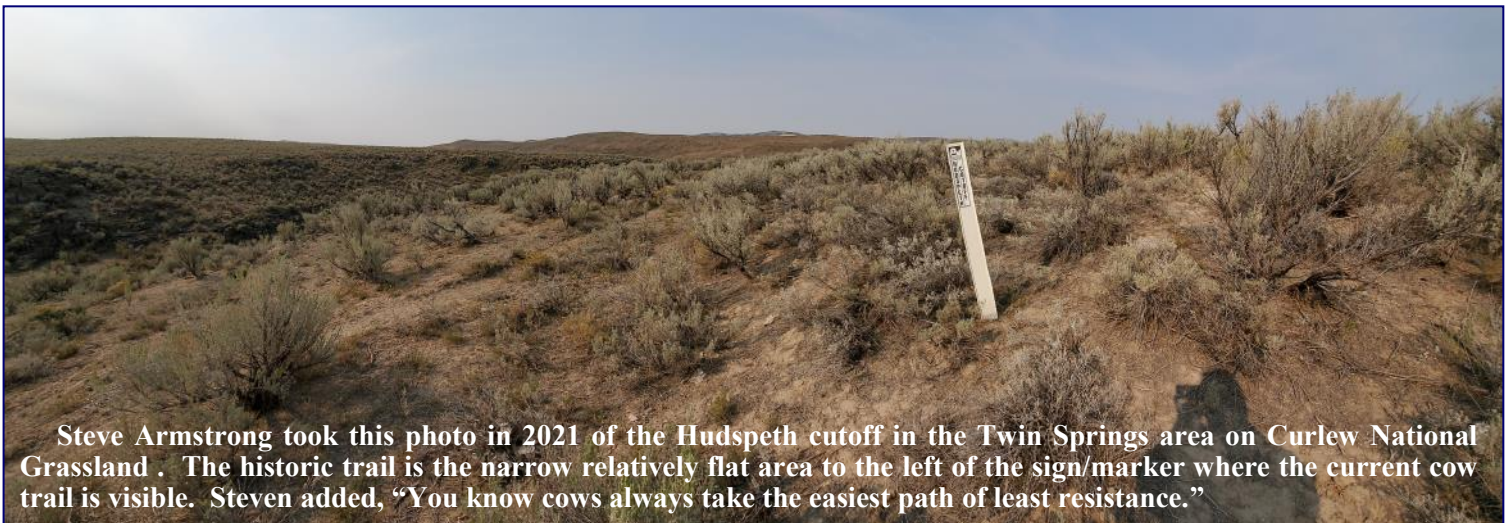
they passed through this area during their seasonal movements. All the people living around the CNG were using the various plants, animals, stone, and other resources located there.

Editor's Note:

Steve mentioned the Curlew has “documented cultural sites.” A historic trail, Hudspeth Cutoff, was blazed in 1849 by Benoni Hudspeth and John Myers. This cutoff trail splits from the Oregon Trail near Soda Springs, ID, goes west over four mountain



ranges and connects with the California Trail by the City of Rocks near Malta, ID. With this trail, traffic was diverted from the “older Fort Hall route.” See: *National Historic Trails Auto Route Interpretive Guide: Along the Snake River Plain Through Idaho*, NPS 2008 (Photo: <https://www.californiatrailcenter.org/the-hudspeth-cutoff/>)



Steve Armstrong took this photo in 2021 of the Hudspeth cutoff in the Twin Springs area on Curlew National Grassland. The historic trail is the narrow relatively flat area to the left of the sign/marker where the current cow trail is visible. Steven added, “You know cows always take the easiest path of least resistance.”

Central Grasslands Roadmap

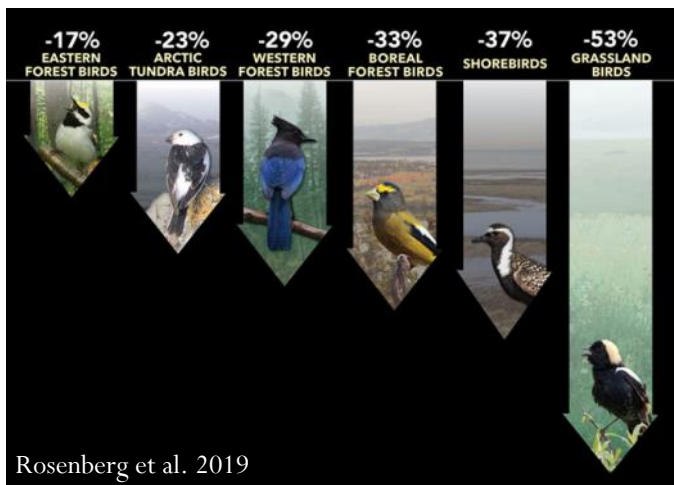
A multi-national initiative to save our Grasslands

By Tammy VerCauteren, Executive Director
Bird Conservancy of the Rockies

Central Grassland Roadmap Planning Team

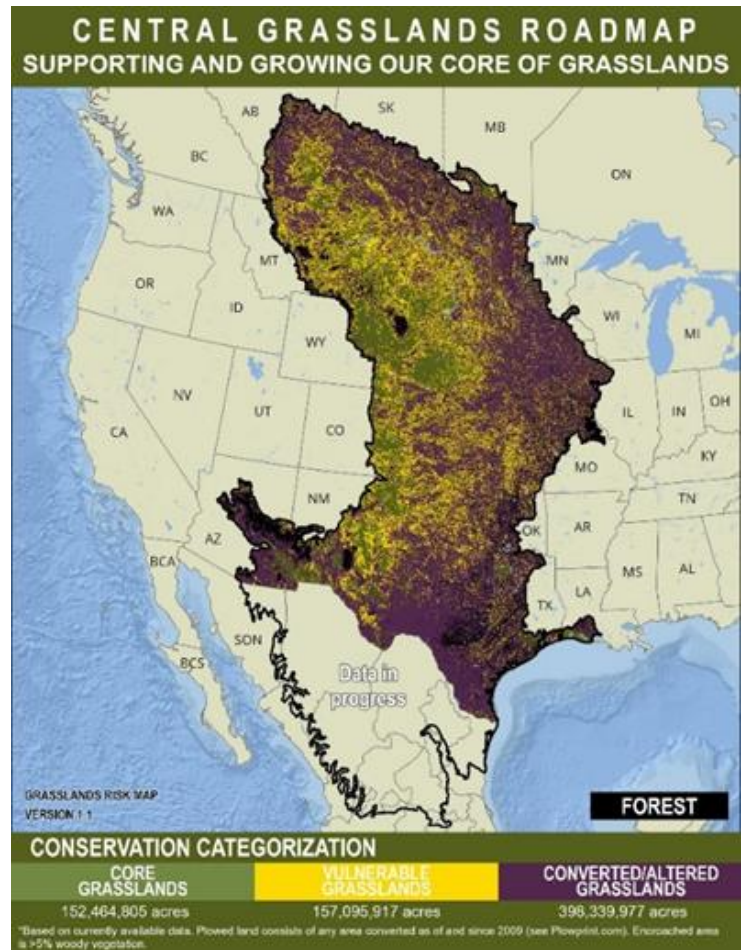
The central grasslands of North America are disappearing rapidly. On average four million acres of grassland are lost each year to agricultural conversion, tree and shrub encroachment, and urban and energy development. Closely tied to the fate of grasslands are many plant and animal species, including grassland birds.

Across North America, scientists estimate we have lost approximately three billion birds in the past 50 years. One-fourth of those birds being grassland species include Sprague's Pipit, Baird's Sparrow, Mountain Plover, Chestnut-collared Longspur and Lesser Prairie-Chicken.



The trend is unsustainable and threatens the prosperity of people as well as wildlife. The cultural heritage of those who tend the land and call it home – from ranchers to Indigenous Nations to ejidos – is closely tied to the fate of grasslands. Rural communities and economies depend on healthy grasslands and the services they provide. Despite their importance, the plight of grasslands has been largely overlooked. The North American Bird Conservation Initiative has also elevated grasslands as a priority habitat and put together a framework for addressing bird declines. This framework was core for informing the Central Grassland Roadmap (CGR) effort, which has been in development for the past three years.

The CGR unites multiple nations across seven sectors: non-government, provincial/state, federal, academic, industry, foundations and landowners. For over three years, a 40-member planning team representing the nations and seven sectors has been working to inform the roadmap



process. Our collaborative vision is when we look out at the landscape, we witness diverse grasslands with thriving Indigenous and rural communities, millions of acres of connected land under various types of conservation, profitable working land with livestock and regenerative agriculture, flourishing ecosystems of soils, plants, wildlife, and rivers and wetlands supporting aquifers, wildlife, production, and people.

A virtual summit was held in July 2020 bringing together voices across the Central Grasslands to help chart a sustainable course forward for grasslands. From the virtual summit, 150 pages of notes were condensed into a four-page executive summary, available at www.grasslandsroadmap.org.

Four big buckets were identified to focus on as we move forward including: elevate and support local community initiatives, build legislative and ag policy to support grasslands, elevate the relevancy of grasslands to our natural and cultural heritage and well-being, and advancing social and biological science to ensure resilient grasslands for the future.

Central Grasslands Roadmap

A multi-national initiative to save our Grasslands

Continued

In light of COVID, we spent 2021 seeking more regional and local input to inform the roadmap. More than 40 presentations have been given to landowner and partner groups. Continuing engagement has included a survey for landowners on priorities and needs, which has been expanded to Canada, Mexico and is in process for Indigenous Nations communities. Over 150 landowners responded that the economic metrics mattering to them included annual yield and net profit; ecosystem metrics should include bird populations, carbon sequestration, biodiversity and soil health; and rangeland and operations metrics should include operation resiliency, breeding/calving success and livestock health.

All this background work provided the framework for the in-person summit, which occurred in May 2022 at Colorado State University hosted in partnership with the Salazar Center. Over 200 people were in attendance representing seven distinct sectors, three countries (Mexico, Canada and the United States) and Sovereign Indigenous Nations. An additional 50 participated virtually primarily from Canada and Mexico.



The summit program was designed to meaningfully engage participants, encourage interaction, increase trust and collaborative will. While building shared understanding through story circles, roundtable conversations, and diverse opportunities for networking and dialogue to propel the collective work forward. The result was a powerful and extensive collection of material which was themed, studied and synthesized in the weeks following the Summit.

Delegates spent time in workgroup and visioning sessions, outlining key metrics and objectives to strive for. Examples include targeted communications and outreach in relation to grasslands, support for policy and legislative initiatives benefitting grasslands, increased social and biological science and research, and building meaningful partnerships with Indigenous Nations and across country borders. All sectors and Nations elevated their voices, priorities and commitments for moving grassland conservation forward.

Over the next ten years, the Roadmap community will continue to work together to deliver programs and work on the ground, track progress, and report on results. Partners identified a Central Grassland Roadmap Director as a foundational need for building on the energy and momentum from the summit. Funding and partnership building are in development to bring this position to fruition. For more information about the Roadmap, the community of partners, ways to get involved – as well as a full summary report from the summit – visit www.grasslandsroadmap.org

More than 200 organizations and 600 individuals have helped inform this Roadmap. This includes more than 100 people leading and participating in working groups to support the effort from Indigenous to Policy, Communications, Metrics, Federal, Canada and Mexico.

We envision by 2033 millions of acres of grasslands voluntarily enrolled in short and long-term conservation programs, management, and/or restoration, conversion of marginal farm ground back to native grasslands, policies to support a grass-based economy and a national communication campaign elevating the importance of grasslands for human health, food security, and climate resiliency. Through this collaborative approach, we aim to foster a new conservation paradigm that links the economic benefits of sustainable land and water management and protection with the ecological benefits in order to abate declines in biodiversity and ensure resilient grasslands for vibrant human and wildlife communities.

The United States Forest Service (USFS) has been an instrumental partner since the inception of the Central Grasslands Roadmap including serving on the planning team, engaging in the Federal Working Group, and attending the summit. USFS National Grasslands exist within rural communities and provide core grassland anchor points. During the summit partners endorsed the Grassland Assessment Map.

Central Grasslands Roadmap

A multi-national initiative to save our Grasslands

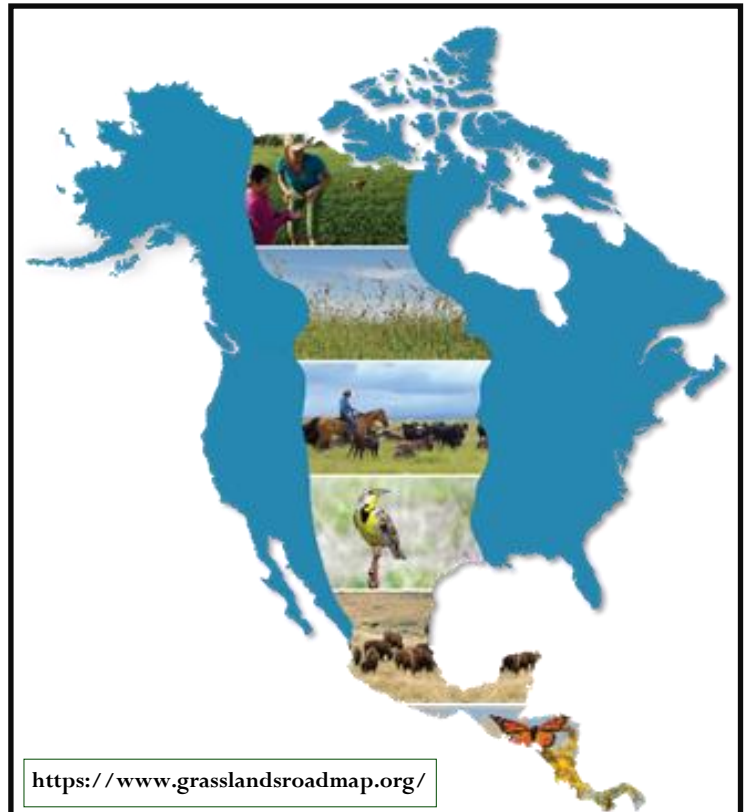
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We need USFS leadership to invest in ensuring our National Grasslands support and inspire grassland conservation across our rural communities. We encourage thinking and managing in a community context with the grazing associations, local tribes, Natural Resources Conservation Service, states and other partners that allows for new tools and techniques that will ensure resilience of our grasslands in this dynamic landscape.

Please help spread the word about the importance of grasslands to our climate, culture, communities, recreation and food security. Engage in the Grasslands and You Campaign at <https://www.grasslandsroadmap.org/grasslandsandyou>.

Your communications team can also promote the recent press release endorsing the grassland assessment map and highlights strategies for saving our grasslands at: <https://www.grasslandsroadmap.org/press-releases>.

We look forward to continuing to work with the USFS and appreciate your continued leadership and further engagement in ensuring our grasslands are viable for generations to come.



Geo-Fencing Summit Report

By Linda M. Hiltner



A virtual geo-fencing summit was presented by the Rocky Mountain Research Station (RMRS) December 7 and 8, 2022. The summit was hosted by Matt Reeves with the Rocky Mountain Research Station and Dwayne Rice the Region 2 Rangeland Program Manager.

The objective of the summit was to enable participants to learn from real-world experience provided by managers, agency leaders, and producers. Geo-fencing was discussed through a series of 20-minute presentations followed by a 30-minute live question-and-answer session. In this manner, participants from a wide range of experiences and disciplines were able to engage with each other.

To watch the recordings of the summit and for more information on geo-fencing, please go to:

<https://www.fs.usda.gov/research/rmrs/products/multimedia/webinars/>

Some background on geo-fencing from the RMRS: Geo-fencing's provides some unique advantages over conventional fencing approaches. This is especially true when we consider the devastation to fencing, and other rangeland infrastructure, caused by wildfires. Geo-fencing is increasingly used with public land grazing leases, but the cost

effectiveness of geo-fencing and common challenges are not well understood. Issues such as cost-effectiveness, environmental concerns, animal welfare, and system efficacy remain unclear. In this summit, a forum was provided for producers, managers, and US Forest Service agency leadership to share their insights, successes, and failures while answering questions in the process.

Geo-fencing may have a significant role to play in the future of public land management and the summit provided a backdrop against which we can come

to some common understanding of what the technology affords, including the considerations needed prior to implementation. Both days of the summit had identical layouts featuring lengthy opportunities for participants to ask questions to each speaker.



Photo: https://www.agupdate.com/thepraiestar/news/livestock/geo-fence-technology-could-be-the-wave-of-the-future/article_2980707a-6446-11ec-b864-2788b8200147.html



Grasslands and Carbon by the National Grasslands Council Strategic Planning Committee

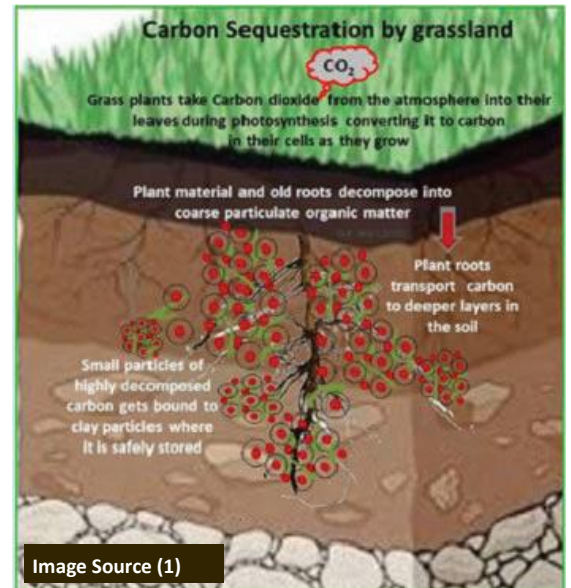


Got Roots? Grassland Carbon Benefits and Management Influences

Grasslands have a large potential to sequester carbon. Increased efforts are needed to communicate the value of grasslands in carbon capture and storage and to increase support for their active management and restoration.

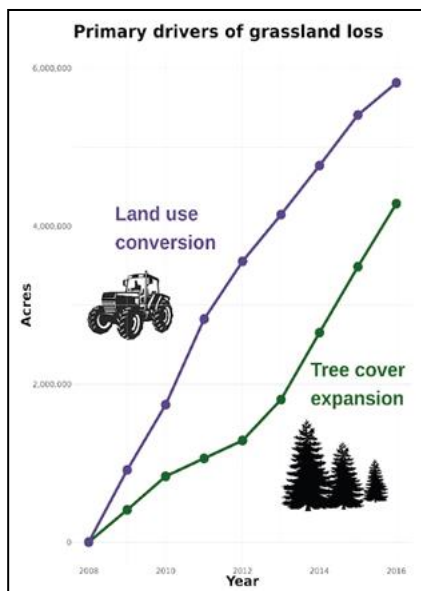
The National Grasslands Council has produced a one-page informational document with links to relevant research, literature, and tools related to grasslands and carbon. The intent is for this to be a living document connecting National Grassland units to best available research, literature, and tools. (Note: This article focuses on information in this sheet.)

The goal is to help increase awareness of the value of grasslands in our efforts to mitigate climate change through fostering resilient grassland ecosystems. Please check out the document, explore the resources and tools and share widely with others who may be interested.



Grasslands are Resilient Carbon Sinks as Most of their Carbon is Stored Underground

- Grassland systems contain much more soil organic carbon than other ecosystems due to rooting characteristics of the vegetation that grows there. These systems have adapted to frequent fire and grazing by developing deep root systems. Grasslands and shrubland carbon stock make up 34% of all carbon in the U.S. Great Plains region (Pendall et al., 2018).
- Soil carbon is the foundation of a healthy ecosystem. Soils act as a sink, or large reservoir, of solid carbon derived from atmospheric carbon dioxide gas by biological processes such as photosynthesis. In terms of long-term carbon storage, grasslands can be superior to forests because relatively more of the total site carbon is stored underground (Paruelo et al., 2010; Terrer et al 2021; White et al., 2000) where it is usually better protected from atmospheric release than carbon stored in vegetation (Booker et al., 2012; Dass et al 2018).
- It is easier to preserve existing soil carbon than rebuild it once it is lost. A large perturbation in the SOC pool occurs during soil erosion and with site specific disturbances such as plowing or land conversion (Spangler et al. 2011).



Management Practices can Protect Carbon Stored in Grasslands and Promote Resilient Ecosystem Function that Sequesters Carbon

- Grazing management, fire suppression, and climate interactively control grassland species composition and productivity, and these responses vary regionally. Taking actions to avoid and/or address species shifts can help maintain and/or increase carbon storage.
 - Invasive annual grasses result in recordable reductions of carbon stored in biomass and soils; and may lead to further loss of stored carbon if fire occurs. Addressing cheatgrass and other annual invasive grasses is critical in protecting stored carbon and promoting future carbon sequestration.
 - Woody plant encroachment, with its increasing abundance of shrubs and trees, is one of the greatest threats to grasslands in North America, particularly with regard to changes in the magnitude and distribution of carbon stored in major terrestrial pools (Archer et al., 2001; Barger et al., 2011; Jackson et al., 2002; Knapp et al., 2008b). There may be some temptation to increase woody vegetation and trees on non-



Grasslands and Carbon by the National Grasslands Council Strategic Planning Committee



Continued: *Got Roots?* Grassland Carbon Benefits and Management Influences

forested ecosystems to increase carbon storage through above ground biomass but this does not always equate to increases in system wide carbon storage. On NFS lands, grasslands are managed to protect basic soil and water resources, provide for ecological diversity, improve or maintain environmental quality, and meet public needs for interrelated resource uses.

- Grasslands in North America evolved with native herbivores, historically grazed by livestock with varying intensities. Grazing management and prevention of overgrazing and soil erosion to protect current carbon stores, especially in mesic areas under drought is critical.
- Grassland systems have adapted to frequent fire. Periodic fires help to prevent woody encroachment and can increase the carbon storage of grasslands. Fire results in a net gain of carbon to the soil system because enhanced root growth exceeds oxidative losses.

Increased Efforts are Needed to Communicate the Value of Grasslands In Carbon Storage

- Grasslands cover 30% of North America and provide a wealth of essential ecosystem services, such as wildlife habitat, hydrological buffering, soil stabilization, carbon storage, and forage production.
- Land management strongly affects productivity and carbon cycling in grasslands and many are degraded to some degree. Active management of grasslands on NFS lands can enhance aspects of carbon sequestration and mitigation of climate change.
- Grasslands are being converted to other land uses at an alarming rate (estimated at 1M acres/year). Grasslands on NFS lands serve as core areas of intact grasslands and provide a full suite of goods and services such as wildlife habitat, livestock grazing opportunities, clean air and water, aesthetic properties, carbon storage and other natural amenities.

Grasslands: Carbon Sequestration: Carbon Storage in Plant Biomass and Soil Organic Carbon

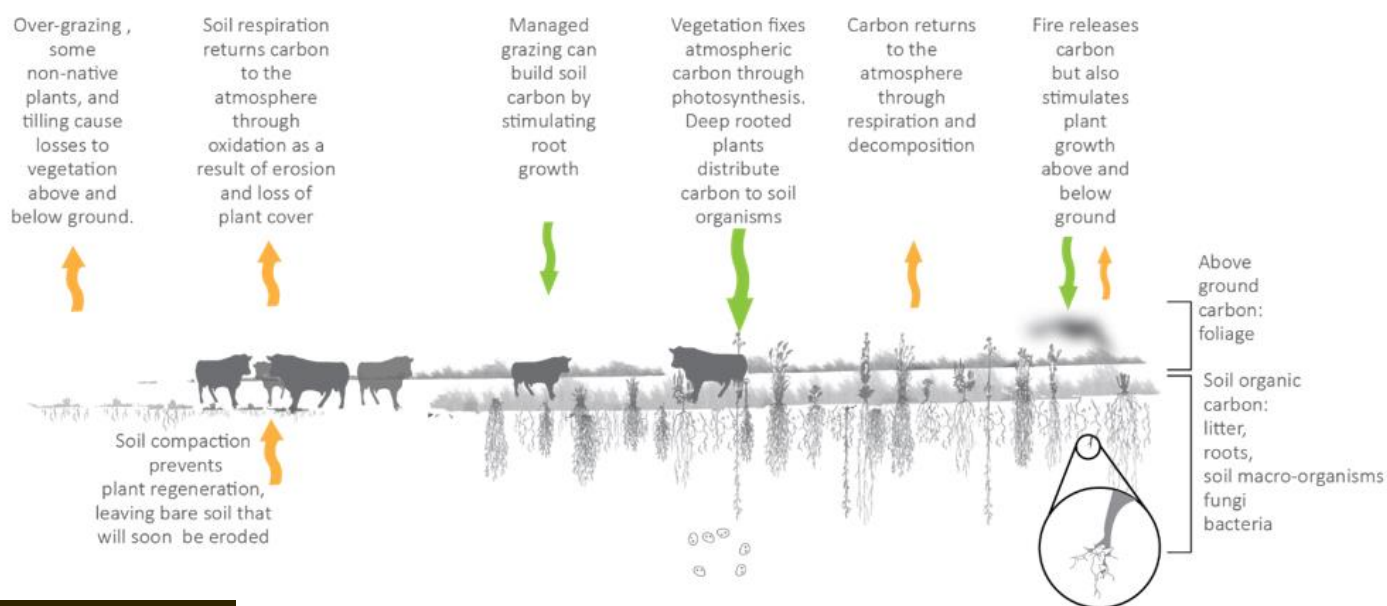


Image Source (3)

See next page for Relevant Research, Literature and Helpful Tools



Carbon Sequestration by Grassland National Grasslands Council Strategic Planning Committee



Continued: *Got Roots?* Grassland Carbon Benefits and Management Influences

Relevant Research, Literature and Helpful Tools

Tools

Use the following link to learn about helpful tools related to grasslands and carbon

<https://usfs.box.com/v/GrasslandsCarbonRelatedTools>

Research and Literature

Use the following link to learn to access research and literature related to grasslands and carbon

<https://usfs.box.com/v/GrasslandsCarbonLit>

Image Sources

Image Source 1

Carbon Sequestration by Grassland, Agriculture and Food Development Authority, accessed 29 July 2022

<https://www.teagasc.ie/publications/2020/protecting-soil-carbon-stocks-and-enhancing-carbon-sequestration.php>

Image Source 2

Proactively Responding to Biome Threats, Dirac Twidwell, accessed 29 July 2022

https://www.grasslandsroadmap.org/s/Tuesday-plenary_Twidwell.pdf

Image Source 3

Carbon Sequestration in Grasslands, MN Board of Water, Resources, accessed 29 July 2022

<https://bwsr.state.mn.us/carbon-sequestration-grasslands>



Our Operating Framework Law, Regulation and Policy Updates By Casey Johnson, National Grasslands Manager



Law, Regulation and Policy Updates

I tried to find a witty and comical quote that I could use to kick this article off with a certain sense of zeal but, as you might expect, there are not many quotes that combine humor with law and regulation. Well at least none that would not leave you with a disparaging view of the topic.

I suppose that is another signal that, unfortunately, many find the study of law, regulation, and policy to be mundane and even painful. I would offer that it is just the opposite and, if you set your mind to it and don't over think it, it can be pretty interesting. But alas, I am self-aware enough to know that not everyone shares that point of view so I will do my best to keep these updates short, useful, and pain free. Hopefully you have a good grasp on how laws, regulations and policies interact. If you want to brush up on it, I invite you to take a read of the article published in the Winter 2022 issue of the Grassland News titled *Our Operating Framework: How to Find and Understand Information about Law, Regulation and Policy* to make sure you get the most out of this and future updates on law, regulation and policy that have bearing on the work you all do on our National Grasslands.

Law Updates – For the purposes of this article I have only included updates that are applicable to the National Grasslands. Please note, there are additional updates to law that apply to other portions of NFS lands that are not listed here but can be viewed on the [WO Rangeland Management SharePoint site](#) under law updates. The following is a summary of new laws, applicable language included in recent appropriations law and, as a bonus, a few legislative updates that may be worth keeping an eye on:

New Laws/Amendments to Existing Laws –

H.R.3684 - 117th Congress (2021-2022):

Infrastructure Investment and Jobs Act. (November 15, 2021. [http://www.congress.gov/.](http://www.congress.gov/))

SEC. 40806. ESTABLISHMENT OF FUEL BREAKS IN FORESTS AND OTHER WILDLAND VEGETATION

- **Section 40806** established a new statutory categorical exclusion for certain management activities that can be used to establish and maintain linear fuel brakes when certain requirements are met using a variety of tools such as targeted grazing, mechanical treatments, etc. The authority is now codified in the United States Code as follows:
 - ◇ [16 U.S.C. §6592b](#) – Establishment of fuel breaks in forests and other wildland vegetation

Annual Appropriations Riders –

H.R.2617 - 117th Congress (2021-2022): Consolidated Appropriations Act, 2023. (2022, December 29).

<https://www.congress.gov/bill/117th-congress/house-bill/2617>

TITLE III - RELATED AGENCIES - DEPARTMENT OF AGRICULTURE - FOREST SERVICE

National Forest System

Page 344 - That notwithstanding section 33 of the Bankhead Jones Farm Tenant Act (7 U.S.C. 1012), the Secretary of Agriculture, in calculating a fee for grazing on a National Grassland, may provide a credit of up to 50 percent of the calculated fee to a Grazing Association or direct permittee for a conservation practice approved by the Secretary in advance of the fiscal year in which the cost of the conservation practice is incurred, and that the amount credited shall remain available to the Grazing Association or the direct permittee, as appropriate, in the fiscal year in which the credit is made and each fiscal year thereafter for use on the project for conservation practices approved by the Secretary.

Extension of Grazing Permits

Page 366 - SEC. 415. The terms and conditions of section 325 of Public Law 108–108 (117 Stat. 1307), regarding grazing permits issued by the Forest Service on any lands not subject to administration under section 402 of the Federal Lands Policy and Management Act (43 U.S.C. 1752), shall remain in effect for fiscal year 2023.

Legislative Updates – There are a few bills working their way through the legislative process that are related (directly and indirectly) to grasslands. However, since they are not yet laws, I will not go into detail on them but instead invite you to keep an eye on congress.gov to see if and how they progress. Those bills are the North American Grasslands Conservation Act of 2022 ([S. 4639](#)), the Recovering America's Wildlife Act of 2021 ([H.R. 2773](#)) and a [bill introduced by U.S. Senator Thune](#) which would amend Section 402(a) of FLPMA, making it applicable to National Grasslands in addition to National Forests in the 16 Western States.



Our Operating Framework Law, Regulation and Policy Updates By Casey Johnson, National Grasslands Manager Continued



Regulation Updates – The following is an update on recent updates to the Regulations that are applicable to the Forest Service’s Rangeland Management Program:

Excess and Unauthorized Grazing Use Rule

- The Forest Service has always been required to document and charge for all excess or unauthorized grazing use. In 2016, the Government Accountability Office (GAO) conducted an audit of the Forest Service’s and BLM’s approach to addressing unauthorized grazing use. In their [2016 Audit Report](#), the GAO noted that many Forest Service officials preferred to informally resolve unauthorized grazing incidents and that the preferred practice of informal resolution was not provided for under agency regulations.
 - ◊ In response to the 2016 GAO Report, [36 CFR §222.50\(h\)](#) has been revised and now provides authorized officers the option (not requirement) to waive excess and unauthorized grazing use fees when all three of the conditions listed in the regulation are met.

Policy Updates – We are making progress on updating the rangeland management directives. I am excited to announce that chapter 80 (grazing fees) of Forest Service Handbook (FSH) 2209.13 is now final effective March 6, 2023.

Thank you to everyone who provided comments and aided us in arriving at the best possible final product. FSH 2209.13, chapter 80 can be accessed at: [FSH 2209.13, Ch. 80](#).

As a reminder, this is one of fifteen chapters that are being updated:

- 6 chapters of Forest Service Manual (FSM) 2200
- 9 chapters of the FSH 2209.13 and
- 1 chapter in the new Allotment Management Handbook (FSH 2209.16)

We will continue to release final versions in batches and hope to have all chapters of the manual and handbooks released by the beginning of calendar year 2024. The planned sequence for release of the remaining chapters is as follows:

- FSH 2209.13, Chapters 30, 60 and 70.
- FSM 2200, All Chapters
- FSH 2209.13, Chapter 90
- FSH 2209.16 – Allotment Management Handbook
- FSH 2209.13, Chapter 10
- FSH 2209.13, Chapter 20
- FSH 2209.13, Chapter 50

I hope you found this article useful, a little interesting and most importantly pain free. I will continue to provide similar articles in future issuances of the Grassland News to keep you all up to date on any relevant updates to law, regulation and policy that have bearing on the work you do. Between now and then, don’t forget to spend some time exploring the [United States Code](#), the [Federal Register](#), the [Code of Federal Regulations](#), and the [Forest Service Directives](#). I also encourage you to check out the [WO Rangeland SharePoint site](#) which includes a law updates page a many more helpful resources and information related to the Forest Service Rangeland Management Program.





National Grasslands, Midwin NTP and the *National Register of Historic Places*

by Linda M. Hiltner



An interesting tidbit about Curlew National Grassland (CNG) was discovered while researching the article for this issue of the newsletter.

According to *The National Grasslands: A Guide to America's Undiscovered Treasures* (2006) author, Francis Moul, Curlew National Grassland "...is listed on the National Register of Historic Places as it contains the site of a major campsite and stopover on an old trail, Hudspeth's Cutoff, established during the California Gold Rush in 1849."

Caddo National Grassland is the only other NG mentioned in this book as being listed on the National Register of Historic Places. The site is a former CCC camp built by the Resettlement Administration in 1936.

Efforts to substantiate the information in Moul's book and about other NGs on the National Register of Historic Places webpage yielded no results—at least not by any NG name.

After contacting the National Forest Service Library, an initial search by Dani Hayes, a Reference Librarian at the Library, indicated Curlew NG's site on the National Register is actually the Riverside Inn. This site was listed in August 1979 and is near Hudspeth's Cutoff.

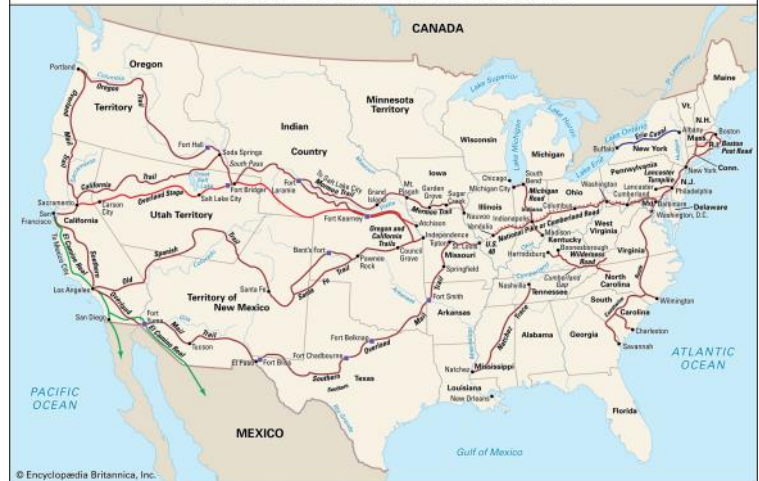
On the Caddo, according to Reference Librarian Hayes, the site on the National Register is Lake Fannin Organizational Camp, which was listed in June 2001.

Other National Grasslands with sites on the National Historic Register according to Hayes are

- ◆ **Black Kettle**
 - Break O'Day Farm
 - Washita Battlefield
- ◆ **Cimarron**
 - Sections of the Santa Fe Trail
- ◆ **Comanche**
 - Rourke Ranch Historic District
 - Sections of the Santa Fe Trail
- ◆ **Crooked River**
 - Cyrus Homestead
 - McCoin Homestead
- ◆ **Midwin NTP**
 - Section of Alternate Route 66
- ◆ **Pawnee**
 - Land Utilization Program Headquarters
 - Ball Ranch
 - Longhurst Lodge

Please let me know if any National sites were missed.

HISTORIC ROADS OF THE UNITED STATES



The story of America's growth is written in its roads and streets, many of which began as early trails and traces. The Spanish, for example, built El Camino Real along existing Indian trails. Today highway US 40 follows the early National Pike. During the 19th century, many major routes stretching westward were used by settlers traveling to the American West. Source: <https://kids.britannica.com/students/article/Overland-Trail/332240>



Pawnee National Grassland historic site



Photos: <https://www.fs.usda.gov/detail/r2/home/>



Reasons to Celebrate

by Linda M. Hiltner

<https://www.aag.org/geoweek-2022/>

Reasons to Celebrate and *Do You Know?* were first added to the newsletter in the *Spring 2022* issue. These sections highlight days, weeks or months and are times to celebrate, such as **Earth Day** (April 22), **Arbor Day** (April 28), **Endangered Species Day** (May 19), **World Environment Day** (June 5), **National Pollinator Week** (June 19-25), **Black-footed Ferret Day** (September 26) and one a little more specific to us: **National Grasslands Day/Week** (June 18-24). A few more recognition dates are **Celebrating Wildflowers Week**, **International Firefighters Day**, **Get Outdoors Day**, **World Cleanup Day**, **National Public Lands Day**, **National Trails Day** and **National First Responders Day**.

Along with these awareness dates are some fun celebrations, such as *National Teddy Bear Day*, *National Cookie Day*, *Picnic Day*, *World Beard Day* and *National Sourdough Bread Day*. These are only a few of the many days of recognition going on throughout each year.

One of these recognition days, which may be relevant to the history of our National Grasslands, is *National Sourdough Bread Day* on April 1. “Why,” you may ask, “is this relevant to the National Grasslands story?”

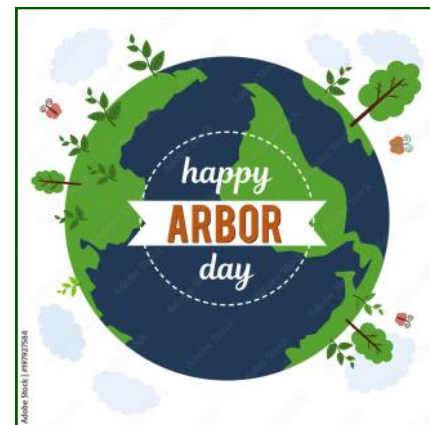
Well, sourdough is recognized as “one of the world’s oldest leavened breads,” having its beginning in ancient Egypt. Sourdough very likely made its way across the Ocean to North America. As Europeans spread out and settled the continent, they took sourdough with them.

When cowboys, pioneers, homesteaders, miners and others headed west, no grocery stores or bakeries were available — nor had powdered, packaged yeast been invented yet. These travelers usually carried a crock of sourdough starter batter with a cloth or rag tied over the top.

To make the bread, the ingredients of flour, lard, sugar and salt were added to an amount of the starter then kneaded and shaped into loaves or “biscuits” or flattened and made into flapjacks (aka pancakes). Baking was usually done in a cast iron pan or Dutch oven. When an amount of starter was removed from the crock, new ingredients (water and flour) were added to equal the amount taken out. This way, the starter was always fresh. So, today, some of these sourdough starters have been passed down through the generations and are over 100 years old.



The Endangered Species Act was signed into law on December 28, 1973, by President Richard M. Nixon



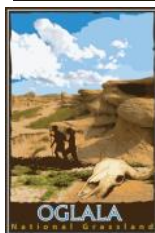
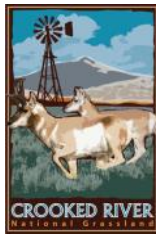
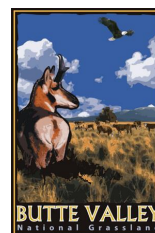
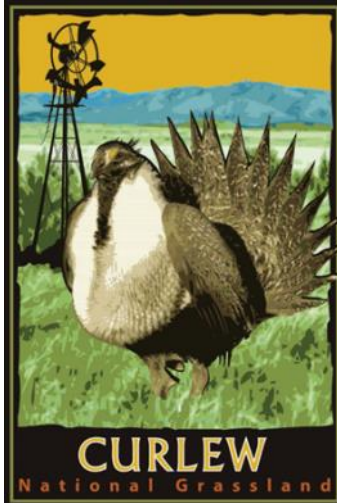
Resources: **Sourdough Bread Day:** <https://happydays365.org/sourdough-bread-day/national-sourdough-bread-day-april-1/> AND <https://nationaldaycalendar.com/national-sourdough-bread-day-april-1/> AND <https://www.jstor.org/stable/1497483?mag=pioneers-were-americas-original-artisanal-bakers> AND https://abigailsoven.com/blogs/abigails-oven/sourdough-a-pioneer-legacy?_pos=14&_sid=e5bfcf7a8&_ss=r
Arbor Day: (1) Image: <https://stock.adobe.com/images/arbor-day-picture-of-a-tree-vector-illustration-for-a-holiday-symbol-of-arboriculture-forests-agriculture-space-for-text/197927584> **(2) History:** <https://www.arborday.org/celebrate/history.cfm>
Endangered Species Day: <https://www.endangered.org/campaigns/endangered-species-day/> AND <https://esa50.org/endangered-species-day/>
AND <https://www.worldwildlife.org/pages/the-us-endangered-species-act>
Earth Day: https://www.stockunlimited.com/vector-illustration/tree-with-recycle-symbols_1276701.html



ACKNOWLEDGEMENTS AND “DO YOU KNOW?”



THANK YOU to everyone who contributed to and assisted with the Spring 2023 issue of the National Grasslands Council newsletter. Learning more about and working with each NG unit is always a great pleasure.



Do you know?

Which one of the National Grasslands (NG) was the first one to host the National Grasslands Managers Meeting? When? *(No peeking at the answer below)*

Hints:

- ⇒ This NG covers approximately 150 square miles.
- ⇒ At around 94,480 acres, this NG is 11th in size with nine NGs and Midewin NTP being smaller.
- ⇒ Oligocene epic fossilized animal tracks are found on the longest known path along a 30 million year old river.
- ⇒ Fossil remains of over 600 ancient bison are on this NG.
- ⇒ The diverse landscape of this NG includes badlands and toadstool formations.
- ⇒ Located on the Great Plains, this NG is in the panhandle of the State of Nebraska.



Answer: Ogala National Grassland first host to the NG Managers Mtg in 1982.



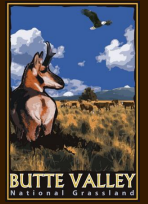
News Brought to you by the National Grasslands Council
Edited by Linda M. Hiltner



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2023 NATIONAL GRASSLANDS MANAGERS MEETING PHOTO AND VIDEO CONTESTS INFORMATION



**Note correction to the Photo rules:
One submission *per person*, per category.**

Photo & Video Contest

2023 National Grassland Manager's Meeting

Photo Contest

Categories:

- Plants/Wildlife
- Multiple Use/Users
- Landscape
- Management/Employees
- Then & Now
 - Two photos side-by-side showing a change at a single location

General Rules:

- Photo must have been taken on a National Grassland
- Each person is limited to one photo submission per category
- Photos should be printed on 8"x10" high quality photo paper
- Write your name, location of photo, and date
- Bring prints to meeting for submission, we will not print photos

Video Contest

General Rules:

- One video per National Grassland showcasing your National Grassland
- Length Restriction: 2 minutes or less
- Can have audio, narration, or music
- Forms of Submission
 - Submit to hosting unit via email or Box/Pinyon link
 - Bring to meeting on USB thumb drive
- Do not publish without consulting your local Public Affairs Officer



**We can't wait to see all the wonderful submissions!
Prizes for each category will be awarded at the meeting.**

REMEMBER TO SAVE THE DATE
2023 National Grassland Manager's Meeting

“The Final Frontier”

Butte Valley National Grassland
Macdoel, CA
May 16—18, 2023



Be sure to participate in the
Photo and Video Contests,
National Grassland Tour, and
apply to become a National Grasslands
Council Member

SEE YOU THERE!