Prairie Bee balm

DES MOINES, IA • AUGUST 27–29, 2024

MIDWEST GRASSLANDS SUMMIT

SUMMIT ORGANIZERS:

Midwest Landscape Initiative

IOWA DNR
IOWA DEPARTMENT OF NATURAL RESOURCES

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Welcome Note

We're excited you are here at the Midwest Grassland Summit! Our hope is that we can spend some time this week better understanding one another, asking important questions, and connecting our interests in ways that create, restore, enhance and connect grasslands across the Midwest. We all understand the importance of grasslands for water quality, soil health, biodiversity, and livelihoods. Grasslands affect all our communities, and it will take all of us working together to ensure a future of healthy, connected grasslands across the Midwest.

Our invitation to you this week and beyond is to think creatively, question the current approaches, and challenge the status quo. Let's seek a common purpose and explore innovative ways to collaborate, turning obstacles into opportunities and challenges into learning. Together, we can redefine grassland conservation and create impactful strategies and partnerships that benefit our landscape.

Let's kick off the conversation on how we can leave the Midwest in better shape for the next generation - with cleaner water, thriving fish and wildlife, productive agriculture, and expansive, vibrant grasslands.

Thank you for dedicating your time and energy to this Summit. This is just the beginning, and we're excited to work with you to co-develop our vision for the next model of grassland conservation in the Midwest.

Kelley Myers Tymeson, Midwest Landscape Initiative, U.S. Fish and Wildlife Service
Doug Gorby, Upper Mississippi/Great Lakes Joint Venture
Todd Bishop, Iowa Department of Natural Resources

Midwest Grasslands Summit Planning Team

Kelly VanBeek
Tyler Harms
Kayla Feist
Alex Wright
Kelley Myers Tymeson
Doug Gorby
Todd Bishop
Bill Moritz
Lisa Potter
Mark Norton
Leon Hinz
Sam Adams
Brent Rudolph
Jim Giocomo

Midwest Grasslands Summit
Meeting Report

Tuesday, August 27 - Thursday, August 29, 2024
8:00 am - 4:30 pm Central Time
Greater Des Moines Botanical Garden
909 Robert D Ray Dr
Des Moines, IA

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EXECUTIVE SUMMARY

SUMMIT OVERVIEW

The inaugural Midwest Grasslands Summit was held Tuesday, August 27 - Thursday, August 29, 2024, at the Greater Des Moines Botanical Garden in Des Moines, Iowa. The Summit was hosted by the Iowa Department of Natural Resources, Midwest Landscape Initiative, and the Upper Mississippi/Great Lakes Joint Venture.

Ranchers, farmers, water resource managers, wildlife biologists, agronomists, corporate sustainability officers, and policy makers have all voiced their desire to see a collective, collaborative approach to conserving and managing grasslands. The meeting engaged a broad and diverse audience of representatives from governmental agencies, Native Nations, NGOs, industry and agricultural organizations, and private landowners to identify shared values and collaborative actions to advance grassland conservation in the Midwest. For the purposes of this Summit, the Midwest was defined to include participants across state geographies, which included Kentucky, Ohio, Michigan, Indiana, Illinois, Iowa, Missouri, Minnesota, Wisconsin, North Dakota, South Dakota, Kansas, and Nebraska. The full registration list for the event is attached here as Appendix A.

Over the course of three days ~100 participants engaged in facilitated discussions to advance grassland conservation in the Midwest, and through active participation sought to achieve the following outcomes:

1. Explore individual and shared interests for Midwestern grasslands.
2. Identify barriers to and opportunities for extending, enhancing, and empowering grassland conservation activities that are inclusive of diverse values.
3. Explore activities that could deliver short-, mid-, and long-term impacts for grasslands conservation.

This report details the Summit proceedings thematically. Unless explicitly identified otherwise, perspectives shared in this report are those of the Summit attendees. The Summit culminated in breakout sessions where participants engaged in facilitated dialogue to map existing activities and prospective areas of collaboration to nine interest areas identified by Summit participants (see Figure 1 and Table 1). Thematic summaries of outcomes from these breakout sessions are in the section titled *Breakout Discussions: Collaborative Interests and Potential Actions*.

SUMMIT TAKEAWAYS

The Midwest Grasslands Summit transformed the conversation surrounding grasslands as ecosystems to a more comprehensive understanding of grasslands and human communities as interconnected systems. This significant shift in perspective allowed the inclusion of a holistic understanding of these systems, including the societal needs, diverse perspectives, and the untapped conservation opportunities across the Midwest. A notable surge of energy among participants throughout the meeting, particularly in breakout sessions, underscored the pressing need for action.
The Summit also sparked enthusiasm for collaborative action across various sectors and highlighted the potential for larger-scale success in conservation efforts. The event was rooted in active listening while sharing diverse perspectives, a collective commitment to Midwest grasslands, and highlighted a need for continued and broader engagement:

- **Active Listening and Collaboration**: Participants actively listened to different perspectives and welcomed challenges to their usual viewpoints. This openness is crucial for fostering innovative and collaborative solutions.
- **Collective Commitment**: The level of commitment to Midwest grasslands observed during the meeting was unprecedented. There is a clear need for a unified vision and collaborative approach to address the conservation challenges facing grasslands.
- **Need for Broader Engagement**: The Summit covered many cross-cutting themes (e.g., water quality, human health), and we will need many additional voices across society to solve those pressing issues. While the Summit did engage a diverse and broad audience, representation and inclusion skewed more towards federal and state natural resource agencies. Emerging efforts must reach beyond the audience present at the Summit, with careful consideration toward how to incorporate broad expertise to guide efforts capable of meeting multiple benefits, coordinate across many sectors that can contribute to these efforts, and engage stakeholders that we've struggled to include in the past.

Lastly, the Summit was seen as a launching point for a new era in grassland conservation and collaboration in the Midwest. Vibrant dialogue among participants focused on cross-cutting socio-ecological themes, resulting in both high-level strategies and specific actions that can guide a path forward.

A PATH FORWARD BEYOND THE SUMMIT

The Summit was envisioned as the first of many steps, conversations, and actions in a longer and broader dialogue regarding Midwest grasslands conservation. The event promoted a robust dialogue and ideation of specific collaborative actions the partners in attendance could collectively tackle (see Table 1 for abbreviated list and *Breakout Discussions: Collaborative Interests and Potential Actions* for full details).

The ideas and actions identified at the Summit are not meant to be prescriptive to any attendee, specific organization, or potential partner. Instead, they are meant to sustain and capitalize on the shared enthusiasm and readiness for collaborative action built at the Summit. In synthesizing the various perspectives shared at the meeting, a broad path emerged to carry that momentum forward, which includes:

- **Broader and Continued Community Engagement**: Following release of this report, organize webinars and forums to include more voices from the community, encourage participation from those not represented at the Summit, and share information on existing resources that support conservation and benefits of grasslands. Ultimately, effective community engagement will require inclusion of individual landowners responsible for specific land use decisions. Elevating their voices will affect positive change at larger geographic scales.
- **Engage Agricultural Sector and Health Researchers**: Strengthen collaborations among the conservation agricultural, and public health communities to position grassland conservation as a nature-based solution for ecological and societal challenges.
- **Develop a Unified Vision**: Finalize and document a shared vision for native and surrogate grassland habitats across the Midwest, emphasizing the collective impact of all partners.
- **Establish a Coalition**: Formally create a coalition of stakeholders dedicated to increasing grasslands on the landscape. This can be achieved by strengthening existing relationships among partners, building new working relationships with others across the landscape, and removing barriers of participation for all partners.
- **Create a Collaborative Action Framework**: Mutually identify and articulate the unifying framework to galvanize momentum for specific initiatives discussed during the meeting (see Table 1).
- **Future Regional Gatherings**: Consider hosting an annual or regularly scheduled event to provide a platform for various groups to report on their activities, share progress, and foster connections that can enhance collaborative efforts. Broadly, there is shared interest in providing a future convening space representative of a large geography while championing the diversity of smaller spatial scale efforts that more readily reflect the unique needs of specific communities. Weaving together these efforts provides significant opportunity to achieve grassland conservation at spatial scales not yet achieved through previous efforts.

The Midwest Grasslands Summit was a significant step forward in addressing the challenges facing Midwest grasslands. By fostering collaboration, encouraging broader community participation, and formalizing a unified vision for grassland conservation, we can strengthen grassland conservation efforts and achieve meaningful impacts for the lands, waters, soils, and communities across the Midwest.

But there are many more steps ahead, and we need participation across many sectors and sections of society. To catalyze the meaningful dialogue that occurred at the meeting into actions and impact, virtual engagement opportunities in early 2025 are being planned to continue our forward progress and advance the path outlined above. We look forward to your participation!

Figure 1: Midwest Grasslands Summit - Focus Areas

Agricultural Economics and Market-based Approaches

Promote sustainable practices to balance agricultural productivity, economic viability, and the conservation of grassland ecosystems

Biodiversity and Wildlife

Implementing sustainable conservation practices that support native wildlife habitats and promote ecological resilience

Climate Resiliency and Carbon Retention

Enhance climate resilience in grasslands via strategies that maximize carbon retention storage and ecosystem health

Community and Coalition Building

Build strong networks and partnerships that engage stakeholders in shared stewardship and sustainable land practices

Ecosystem Services (Soil Health & Water Quality)

Improve ecosystem and human health via sustainable land management practices that enhance nutrient cycling and reduce runoff

Fire Management

Promote proactive fire management strategies that support habitat restoration, promote native species, and mitigate wildfire risks

Human Health and Flourishing

One Health approach promoting environmental sustainability, community engagement, and equitable access to natural resources

Land Use Conflicts

Foster collaborative strategies to protect vital ecosystems and meet energy development, urbanization, and agricultural interests

Ranching, Grazing, and Cattle

Develop practices that promote sustainable grazing, enhance wildlife habitat, and support the economic viability of ranching

Table 1: Consolidated List of Collaborative Action Recommendations

For each Focus Area listed in Figure 1, Summit attendees participated in facilitated discussions where they:

- Identified existing activities to learn from,
- Established lessons learned from prior grasslands conservation efforts in the Midwest,
- Explored potential partners and stakeholders interested in activities to address Focus Areas,
- Began to develop objectives for cross-sector collaboration on Midwest grasslands conservation efforts in these areas, and,
- Concluded by identifying a suite of potential collaborative actions that could be undertaken by a Midwest Grasslands Collaborative.

Table 1 details the key Recommended Actions identified by Summit attendees in these facilitated Focus Area discussions. A full description of each discussion can be found in the Collaborative Actions section of this report.

The Recommended Actions highlighted in Table 1 will serve as the groundwork to engage partner organizations in forthcoming forums to further refine and tackle collaborative actions.

*Designates a recommendation that appears in multiple Focus Areas.

Focus	Recommended Actions
Agricultural Economics and Market-based Approaches	• **Supply Chain Mapping:** Focus on supply/demand disconnects or bottlenecks from the beginning. Analysis should be by land use/activity (e.g., stocker programs, beef cattle, row-crop production) and by segment (e.g., Distributors, Processors, Institutional Buyers, Consumer Packaged Goods (CPG) companies). Appreciative inquiry - where can we affect change, where do we have leverage, and how does it connect with goals. • ***Social Science Analysis:** Defining specific grasslands and businesses interests to be able to better connect what we want to accomplish for conservation of grasslands and consequently be able to make the pitches to business (ex. 2014 South Dakota Grasslands System Accounting) • **Product Labeling, Certification and Verification Program Assessment and Engagement:** Pull from multiple resources, including state sustainability and land/water programs, the Sustainable Forestry Council, Audubon conservation ranching training resources, and others. • ***Stakeholder Engagement Materials on Economic Considerations:** Develop financial value-per-acre modeling and case studies for different users and "adder" activities (e.g., Native Pasture Lease for Stocker Programs, Biofuel, Seed/Native Seed, Eco/Tourism, Carbon Sequestration, Recreation Leases, Feedstock Production, Flood Control, Water Quality). Engage multiple audiences, like Government Buyer Programs. • **Increase Technical Assistance Capacity and Training/Knowledge for Cattle.** Good technical training available for wildlife management, lacking for cattle. • **Assessment and Promotion of Local Solutions:** Step down analyses to regional/local scales to engage community-based solutions while identifying champions at each scale/within each geography. Serve as a forum for information exchange on local ideas, case studies, and collaboration to advance those ideas regionally. Use case studies of what has worked, appealing to those who have not bought in, to bring them along.
Biodiversity and Wildlife	• **Data Mapping & Addressing PII/Sensitive information Exchange**: PII (Personally Identifiable Information), and its relationship to participation in private lands conservation programs (ex. CRP), presents challenges to effective data sharing. Possible solutions include exploring the USGS/USFWS - conservation efforts database - spatial tracking of conservation activities, aggregated at watershed level conservation data (e.g. a spatial scale where PII is included but not precluding sharing/analysis). • **Developer Education and Engagement:** Topics include urban fire management, urban sprawl, managing land/use conflicts, and integration of conservation into urban development. • **Engage Federal Funding Programs:** Can serve as a clearinghouse for information exchange about grant applications and recipients to engage on the topic of grasslands, help advance DOI initiatives by better integrating conservation into social programs, and support state agency partnerships.

Focus	Recommended Actions
	• **Partnership Development Training/Support Program**: Help develop resources and support their use to foster partnerships. Help partners define need, find partners, build relationships. Identify means to share resources - reducing costs/complexity in partnership agreements. • **Stakeholder Engagement Materials for Decision Makers**: Decision maker information/capacity building - better inform decision/policy makers about how decisions affect biodiversity. What if every law had to assess biological impacts aka a biodiversity Environmental Impact Statement? • ***Stakeholder Engagement Materials on Economic Considerations:** Assess and create communications materials around cost savings, benefits delivery, and adder uses. It is difficult to frame biodiversity as economic benefits. Consider how certifications (ex. Audubon certified beef), voluntary corporate commitment frameworks (e.g., Science-Based Targets for Nature), biodiversity credits, and regulatory requirements play into the final economic benefits analysis. • **State of the Science**: Support a baseline assessment that can help assess the scope of the biodiversity challenge, building on existing resources like: Biodiversity information network (e.g., NatureServe initiative.), Fed agencies/AFWA meeting. • ***Youth Engagement and Education:** Develop a suite of educational materials (ex. green growth toolbox) and seek out opportunities to include biodiversity into professional graduate/credentialing programs, foundational learning about biodiversity in K-12. Start with an assessment of where are the programs/activities, gaps, and how to fill the gaps.
Climate Resiliency and Carbon Retention	• **State of the Science Assessment:** Analyses and structured informational exchange around what is known, and not known, about how grasslands contribute to climate resiliency, adaptation, and carbon retention. • **Collaborative Statement:** Develop a collaborative, galvanizing statement on the realistic role of grasslands in carbon sequestration, reduced emissions, and broader climate resilience. • **Carbon Credit Assessment**: Understand challenges in forestry and other carbon credit markets, and the comparative value of grasslands as a credible mechanism of carbon sequestration and reduced emissions. • **Define Climate Resilience:** Identify the factors of resilience to be prioritized in collaborative efforts, like plant species, wildlife species, and social/communal resilience**.** • **Decision Making Tools**: Evaluation and engagement tools assessing comparative climate resilience and carbon sequestration benefits from competing land uses to assess benefits. • **Analyses of Plant Species Contributions:** Analyses of individual plant species, plant communities (by species mix, multi factor), to build and sustain overall systems resilience to climate change impacts. • ***Stakeholder Engagement Materials on Economic Considerations:** Develop materials to help stakeholders understand how to better value climate risk (ex. rising risk characteristics for insurers across the board - crop insurance, home insurance, etc.) and economic benefits of value streams generated from climate resilience efforts (ex. haying, growing native seeds as a value stream for landowners)
Community and Coalition Building	• ***Engage Tribal Nations and Incorporate Indigenous Knowledge:** Emphasize the sharing of perspectives for tribal relations. From the Western Perspective, we view land through an "economic" lens. • **Employ a Multi-Scalar Approach to Coalition Building:** Strong desire to utilize jurisdictional/geographical boundaries to start coalitions. Report from meeting to key groups, MAFWA Directors who requested this, reaffirm their commitment (including virtual follow-up). • ***Social Science Analysis:** Listen to communities, assess participation and motivational messaging, and include the communities being studied in the assessments as active participants. Can help identify shared values, beliefs, and what one is willing to sacrifice for positive change. • **Accessible and Meaningful Community Engagement**: Identify who is missing from these community-engaged conversations and devise strategies for inclusion. Organize community listening sessions re: Grasslands, their communities, and the intersection. • **National Campaign and Related Messaging:** Develop a national campaign with messages focused on communal benefits based on social sciences insights into behavior change, messaging, etc. Reframe

Focus	Recommended Actions

	the Opportunities: Explore new languages on row-crop agriculture and grassland conservation. Highlight that areas are productive and provide value.
	• **Case Studies**:
	  ○ ***Watershed Case Study:** Evaluate an example watershed, before/after impacts, and identify needed community aspects that were critical to success. Triage/Prioritize which Communities where we make most immediate investments.
	  ○ **Demonstration Sites and Other Case Studies:** Develop demonstration sites and clear analysis of how community engagement impacted the success of outreach efforts.
	• **Policy and Programs:** Land grants/extension/4H. Policy level/funding support for community organization.

Ecosystem Services (Soil Health & Water Quality)	• **Define Ecosystem Services:** Define the list of ecosystem services, characteristics of the system that help to deliver those services, and the mechanisms to value those services. Analyses should qualify and quantify the short-term and long-term solutions for ecological services such that people do not become reliant on any individual solution. • **Analysis and Map of Cost Match Resources**: Map of supplementary materials and potential solutions (financial assistance, grant programs) to address the onerous costs quired to make a cost match. • ***Stakeholder Engagement Materials on Economic Considerations:** Analysis and demonstrations showcasing ecotourism and other recreation opportunities (Hunting, Fishing, Swimming) as value streams that private landowners can benefit from economically while simultaneously delivering the conservation needed to deliver ecosystem services. Additional value streams can include grazing, haying, native seed production, and more. • ***Watershed Case Study:** Evaluate an example watershed, before/after impacts, to showcase robust ecosystem services. Materials that model landscape watershed impacts can help to visualize success. For example, a map that helps visualize the scale of conservation desired as a means of mobilizing action. Local analyses of costs to clean water compared to grasslands conservation can bolster efforts to incentivize change. • ***Youth Engagement and Education:** Planning to develop and access an engaged workforce requires starting with education and outreach to youth. Engage educators, university administrators, and students to change how education occurs on these issues, leading to more students with access to this education. • ***Social Science Analysis:** Multi-sector collaboration to develop motivating messages regarding grasslands conservation and water quality (human health focus, mutual thriving considerations.)
Fire Management	• ***Engage Tribal Nations and Incorporate Indigenous Knowledge:** Understand where fire is used by learning from indigenous burning cultures, incorporating historical Tribal Nations perspectives into the development of best practices. • **Analyze and Promote Rx Fire Practices:** Assessments can take the form of extended partnerships to scale up fire research (ex. how climate change impacts Rx Fire). Public communications should express societal benefits. Report the number of fires each year, acreage, staff members, etc. Evaluate effectiveness of fires over time. Share success stories (ex. Crop Burn Week in Iowa). The goal is to get leaders to change the way they view prescribed burns. • **Assess Liability:** Analyze liability concerns (shared liability, etc.). Secure cross-state insurance policy coverage. • **Create Reciprocity**: Different agencies across the country have different capabilities and knowledge bases - reciprocity of the most effective strategies and programs is needed. • **Grass Banking**: Facilitates fire in production settings for livestock. • **Regional Policy Mapping and Engagement**: Map and make recommendations regarding fire policies on a state-by-state basis to address regional misalignment. Additionally, explore forums to engage regulatory agencies on policies that limit fire: US Environmental Protection Agency regulations on PM 2.5, US Fish and Wildlife Service Section 7). • **Training**: Build on existing training efforts to ensure people in certain positions have the necessary knowledge and training on proactive burns, smoke management, and other fire management

Focus	Recommended Actions
	practices. Audiences include Fire Chiefs, Natural Resources Conservation Service (NRCS) planners, and technical staff at Community Colleges.
Human Health and Flourishing	• **National Campaign:** The development of formal partnerships and collaborative messaging to promote a vision for rural and urban landscapes that embrace grasslands based on societal benefits. The campaign should be informed by social science analysis of motivational messaging by audience and build upon robust community engagement. Should include specific regulator outreach strategies, like Departments of Transportation. • **Prioritize Accessibility:** Ensuring access will be needed across planning and implementation. For example, at the Illinois State Fair, there are designated areas for sensory-accessible experiences, which these efforts can learn from to ensure inclusive, meaningful engagement. • ***Social Science Analysis:** Profile of current and future demographics of agricultural community in the Midwest. Ensuring a collaborative has an inclusive and representative vision for all groups. • **Analysis of Zoning and Ordinance Policies:** Urban planning decisions have significant impact for urban grasslands development. Evaluate preferable ordinance and zoning policies and develop materials to support implementation. • **Develop economic models that calculate the cost to human health**. Need to bridge the economic/mental health aspects of producer's perspectives, and the health outcomes of the users or nearby residents of those areas. Build off Randy's existing research and other resources. Ex: Comparing grass-fed beef to crop/soybean rotations. Or Research interchange of climate change/disease transmission (mosquitos, etc.) • **Policy Analysis:** Farm Bill - How are "underserved" communities defined and how does it differentiate from how states and others define it? How can Human Health Metrics/Requirements be built into Farm Bill policies and subsequent interpretation documents from agencies? Should include conservation practices and SNAP. • **Analyze and develop education in collegiate agriculture programs**. We often include agriculture (as a program) into our teachings re: natural resources, is that often reciprocal? How do we inject that perspective?
Land Use Conflicts	• **Analysis and Communications Tools on Comparative Land Use Decision Making:** Develop analyses of comparative land uses and existing valuation strategies of decision makers. Analyze comparative benefits (ex. micro-systems, crop potential vs. solar potential) and communications to express these benefits to communities and decision makers. Develop case studies of how alternative practices (precision ag technologies) can deliver better practices. • **Data Sharing:** Identify strategies to encourage sharing of industry data (e.g., acres in wind and solar easements), and incorporate trend information into planning for conservation. • **Develop Best Practice Conservation Strategies:** Best practices around integration of conservation strategies with alternative land uses to incentivize better management. Explore existing policy and gaps, develop informational materials, and identify Technical Assistance resources to support implementation of best practices. • **Easement Analyses and Midwest Conservation Easement Database:** Analyze impacts of different rights and how they implicate viability of easements as a conservation vehicle. Analyze easement compliance and develop a Midwest conservation easement database. • **Model Program Development:** Analyze existing programs and develop model programs to incentivize alternatives to turf grass in urban and rural areas for landscapers and horticulture industries. Includes urban foodscapes. • **Policy Analysis and Statements:** Redlines and analysis of benefits and costs for the Farm Bill: Crop Insurance, Commodity Payments. Explore development of collaborative statements and other vehicles to support passage of the North American Grasslands Conservation Act and adopt a Nationwide Sodsaver provision. Explore modernizing assessments, as organizations are analyzing soil rental rates using dots. Consider standardizing rates and modernizing the use of computers.
Ranching, Grazing, and Cattle	• **Native and/"vs" Non-native Grasslands Issue Assessment:** Study threats to existing grasslands performance against a series of factors, like droughts, cattle growth, cattle health, and more.

Focus	Recommended Actions

	• **Federal Program Assessment:** Explore overall strategy, where resources being allocated, timing of resources, if/where can Program stacking be enabled, case studies navigating these resources, and engagement to support planning.
	• **Engagement:** Targeted engagement strategies and materials for the following audiences:
	  ○ *Smaller/Part Time Farmers*
	  ○ *New Farmers (generational transitions)*
	  ○ *Non-conservation Land Trusts/Land Managers*
	  ○ *Conservation Land Trusts/Land Managers*
	  ○ *Lenders*
	  ○ *General Mills/Big Markets*
	  ○ *Consumer marketing*

WELCOME & OPENING REMARKS

On the first day of the Summit the audience heard introductory remarks from three presenters, whose purpose was to provide an executive leadership perspective on grassland conservation in the Midwest and officially kick off the Midwest Grasslands Summit. The speakers included:

- **Pete Hildreth** Division Administrator of Conservation, Iowa Department of Natural Resources (Iowa DNR)
- **Will Meeks** Regional Director, Midwest Region, U.S. Fish & Wildlife Service (USFWS)
- **Curtis Elke**, Regional Conservationist, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)

OPENING REMARKS: PETE HILDRETH, IOWA DNR

Pete Hildreth, Division Administrator of Conservation, opened the proceedings with a call-to-action. In reflection of how Iowa's landscape has been substantially impacted over the past few decades, Pete emphasized the centrality of grasslands to the Midwestern way of life and a need to examine the impact of an increasing human population on future grassland conservation efforts. Pete challenged the audience to "think big" and be innovative when addressing grasslands issues. Pete concluded by thanking the Summit Planning Team, especially Tyler Harms of Iowa DNR for his work in grasslands conservation.

OPENING REMARKS: WILL MEEKS, USFWS

Will Meeks, Regional Director, Midwest Region, USWFS, drew attention to the multi-sector support required for effective conservation efforts, especially between state and federal government agencies, Tribal Nations, Non-Governmental Organizations, private landowners, and others. Will Meeks highlighted the importance of a shared vision for grassland conservation in the U.S. and the potential for conservation to have an impact on wildlife and cultural resource conservation, agriculture, environmental sustainability, and the provision of clean air and water for future generations. Will Meeks discussed how convenings like the Summit are important to build trust amongst key stakeholders and foster meaningful partnerships. Will Meeks concluded the segment by imploring the audience to be collaborative, curious, open to future stakeholder events, and to remain focused on the common goal.

OPENING REMARKS: CURTIS ELKE, USDA NRCS

Curtis Elke, Regional Conservationist, USDA NRCS, discussed the multi-factor threats facing grasslands conservation, with emphasis on the roles of invasive species and human development. Curtis underscored the role of technical assistance in helping stakeholders to meet their goals and contribute to regional conservation efforts while sharing some of the challenges NRCS faces when recruiting passionate individuals to join public service, and the opportunity NRCS must ensure that state conservationists have the resources they need to succeed in their roles.

PLENARY PRESENTATIONS

PLENARY PRESENTATIONS SUMMARY

To open each day of the Summit, a plenary presentation was delivered by an invited speaker. The presenters for the Summit were:

- *Day 1:* **Nathan Anderson**, Owner, Bobolink Prairie Farms
- *Day 2:* **Abigail Derby Lewis**, Senior Conservation Ecologist, Field Museum of Natural History
- *Day 3:* **Randy Jackson**, Grassland Ecologist, Department of Plant & Agroecosystem Sciences, University of Wisconsin-Madison

A brief description of the presentations is provided here along with any Question & Answer conducted. All presentation materials from the Plenary Speakers are attached separately as *Midwest Grasslands Summit Consolidated Presentations*.

DAY 1: NATHAN ANDERSON, BOBOLINK PRAIRIE FARMS

PRESENTATION

Nathan Anderson, Owner of Bobolink Prairie Farms, provided the plenary presentation on Day 1 of the Summit. In his presentation, Nathan emphasized the importance of asking questions to address challenges and building a network of resources and people to support continued operational improvements. Nathan, through three different stories, underscored three key lessons for participants to consider:

1. **Observe to understand:** Observing animal behaviors in a grazing environment can help induce many changes.
2. **Surround yourselves with people who are also curious and strive to understand more about the environment:** Mr. Anderson hosted a neighborhood field day, where participants shared insights about reducing workload through ways to have animals "work" for you, expanding community knowledge about grazing practices, and tracking their impacts.
3. **Great partners often respond to needs and can share more to further improve outcomes.** Information sharing amongst landowners and partners can lead to new discoveries and innovations.

QUESTION & ANSWER

After the presentation, a participant inquired if Nathan leverages any financial assistance programs to support this work. Nathan emphasized the importance of diversifying one's funding sources, pointing to financial assistance received for conservation practices from organizations like NRCS, the Monarch Butterfly Fund, and more.

DAY 2: ABIGAIL DERBY LEWIS, FIELD MUSEUM OF NATURAL HISTORY

PRESENTATION

Abigail Derby Lewis, Senior Conservation Ecologist, Field Museum of Natural History (Field Museum), invited participants to expand their notions of the prairie and think about **urban Midwest grasslands conservation**.

Noting that the small size of urban grassland plots may contribute to the perceived lack of significance for conservation efforts, Abigail underscored that the presence of urban grasslands and grasslands conservation efforts are critical to sustaining the health of communities and the environmental resources that inhabit those spaces.

Abigail discussed mounting ecological pressures on pollinators like the monarch butterfly. Pollinators' rapidly declining populations over the past four decades have been driven by multiple factors including pesticide use, climate change, and scale of human development. Efforts to ameliorate these pressures, and those facing other wildlife in urban communities, have been driven by community-centered conservation efforts.

Underscoring the importance of urban grasslands conservation efforts, Abigail referred to partnerships like the Roots & Routes Intercultural Collaborations, and conservation efforts in the Chicago Metro Area that have helped to stabilize the population of 27 grassland bird species. The rise of community gardens and urban farming in recent decades provides an

illustrative example for how a cross-sector collaboration on grasslands can build an inclusive and impactful vehicle for action.

QUESTION & ANSWER

After the presentation, a participant asked how large and small cities can engage in grasslands conservation networks. Abigail said that there is great potential to communicate with stakeholder groups given the different land use types across towns and cities. In addition, Abigail stated that Field Museum developed a Geographic Information System (GIS) tool to help determine the ideal places to plant and nurture greenery.

Another participant asked if Abigail's work extends to protecting firefly populations and combatting light pollution. Ms. Lewis noted that cities including Chicago have adopted an informal "lights out" protocol in which people voluntarily turn their lights off during bird migrations.

Lastly, a participant asked Abigail what they have discovered regarding community motivation to join conservation efforts. Abigail noted a societal desire to create spaces for appreciating nature that spawned among first- and second-generation immigrants, and that urban farming is a factor as people connect with nature by growing their own food.

DAY 3: RANDY JACKSON, UNIVERSITY OF WISCONSIN-MADISON

PRESENTATION

Randy Jackson, Grassland Ecologist, Department of Plant & Agroecosystem Sciences, University of Wisconsin-Madison, provided the plenary presentation on Day 3.

Randy suggested that grassland practitioners need to be multidimensional in their approach to building coalitions. Randy spoke in favor of more transdisciplinary research that empowers people on the ground in communities to help advance transformational change. Given that grasslands enhance soil, organic matter, water, nutrients, and biodiversity when managed effectively, Randy called upon Leopold's notion that 'caring for the land is caring for ourselves.

Randy discussed the role of **regenerative agriculture** in preserving soil and organic matter, noting that his definition of regenerative agriculture is humans taking half or less of the annual net primary productivity from an agroecosystem. This assessment emerges from long-term experimental research at the Wisconsin Integrated Cropping Systems Trial (WICST) showing losses of soil carbon from all annual cropping systems except those based on perennial grassland. Randy also discussed the important ecosystem services that grasslands provide to the landscape, noting that water and soil quality are now more important than ever. Referencing an overlay of maps detailing water contamination and studies on cancer rates in the Midwest, Randy made the case that grasslands' water purifying services are desperately needed and that scaling grasslands on the landscape enough to meet the need would require grasslands conservation efforts well beyond the scale of anything thus far proposed.

Randy concluded by encouraging the group to consider the following actions:

1. **Inspire -** Encourage and support conversations about what's possible beyond the current calculus of today!
2. **Create -** Help create and articulate visions of a new agriculture that provides for our wants and needs today while building capacity of future generations to do the same!
3. **Grow -** Engage in collective action to drive corporate and political change!

QUESTION & ANSWER

Randy encouraged the audience to remain hopeful because the current generation wishes to contribute to conservation efforts. Randy also voiced the need for social scientists to help address resistance to change.

PANEL PRESENTATIONS

On Day 1 of the Summit, a series of panels were convened around different community perspectives - Tribal Nations, Private Landowners, State and Federal Agencies, and Non-Governmental Organizations. Panels were intended to "ground" attendees in existing perspectives as a prelude to later activities taking stock of ongoing grasslands conservation activities, identifying gaps or challenges, and collaboratively developing grasslands conservation actions. Each panel addressed 2-3 questions, and, depending on the time available, took additional questions from the audience.

TRIBAL NATIONS PERSPECTIVES PANEL

PANEL PARTICIPANTS

- **Shawn Grassel**, Buffalo Nations Grasslands Alliance
- **Gabriel Miller**, Prairie Island Indian Community

PANEL DISCUSSION

- Panelists explored challenges Tribal Nations face when pursuing grasslands conservation, including challenges communicating with tribes to identify their needs, navigating bureaucracy like Bureau of Indian Affairs (BIA) policies, and limited capacity and budgets. Panelists explored opportunities, including training for employees to develop multidisciplinary skills like conflict mediation and partnership management. Mr. Miller noted that limited capacity has led Prairie Island Indian Community to prioritize grassland conservation and tribal relations.
- Panelists underscored the importance of preservation of cultural resources such as bison. The panelists also pointed to a vested interest in long-term solutions, noting the emphasis on thinking 'seven generations' ahead when considering prosperity in the future. In addition, the panelists noted that conservation helps to create the ideal conditions for human and animal population growth.
- Participants discussed how conservation collaboration evolves. Federal agencies have access to the resources Tribes need to maintain their lands. To ensure these resources are distributed effectively, Tribal Nations seek more engagements to share priorities, identify best practices, and to have a permanent seat at the table so that their perspectives can be heard across planning processes.
- An audience member asked the panelists their top priorities for collaboration with tribes given the growing interest in partnering with Tribal Nations and limited capacity of organizations. Participants pointed to the need for BIA policy changes, more funding for conservation efforts and programs, and alignment with Tribal Nations on key objectives, like improving water quality.

PRIVATE LANDOWNER PERSPECTIVES PANEL

PANEL PARTICIPANTS

- **Dave Haubein**, Partnerscapes
- **Grace Yi**, Practical Farmers of Iowa
- **Jim Faulstich**, Landowner

PANEL DISCUSSION

- Panelists explored challenges Private Landowners face when pursuing grasslands conservation. Topics explored included limited capacity as a hindrance to collaboration with a diverse range of stakeholders, a hyperfocus on land productivity and profitability that can detract from investments into conservation, and how some government programs, like crop insurance, can constrain land uses in ways that can inhibit conservation.
- Panelists explored opportunities, like the development of more robust government assistance programs to better make the economic case for conservation. Investing in outreach and engagement was discussed, with focus on key audiences (ex. non-operating landowners) and persuasive messaging that expresses how conservation can be profitable (ex. case studies), and the social (ex. natural beauty) and environmental (ex. soil health) benefits of conservation. Panelists explored how a precision conservation analysis program can help landowners identify areas that are not profitable and turn those areas into habitats.

- Panelists discussed government and private landowner collaboration. Participants identified uneven, inadequate financial support for landowners as a constraint, while noting that government programs are essential sources of support for non-profit organizations responsible for connecting government and private landowners. Engaging producers was noted as a challenge that will require leading with examples and clearly communicating those results.

STATE AND FEDERAL AGENCY PERSPECTIVES PANEL

PANEL PARTICIPANTS

- **Jeff Matthias**, Natural Resources Conservation Service
- **Sergio Pierluissi**, US Fish & Wildlife Service
- **Todd Bishop**, Iowa Department of Natural Resources

PANEL DISCUSSION

- Panelists discussed federal government and private landowner relations. Economic viability and education on social and environmental benefits (water/soil quality) were noted as key, alongside the need for social science research to clarify landowners' interests.
- Panelists discussed how state and federal policy can build on local, community-based knowledge. Midwest landowners possess a strong land ethic and an understanding of the volatile nature of the agriculture business. Finding common ground will be key for policy solutions.
- Panelists discussed the role of collaboration in enhancing and expanding the grassland footprint, including the improvement and preservation of existing grasslands as well as the reconstruction of grasslands in areas where they occurred historically but are no longer present. Panelists noted that collaborative efforts can build on previous efforts like the North American Waterfowl Management Plan. While there is some direct cross-agency work, budget constraints can be significant.
- Areas of interest to address that the panel discussed include: the declining populations of grassland birds and pollinators, including the monarch butterfly, development of a no-net-loss policy for grasslands, and the further development of partnerships with Tribal Nations.

NON-GOVERNMENTAL ORGANIZATIONS PERSPECTIVES PANEL

PANEL PARTICIPANTS

- **Brent Rudolph**, Pheasants Forever
- **Christopher Wilson**, National Audubon Society
- **Ryan Diener**, Ducks Unlimited

PANEL DISCUSSION

- Panelists discussed the interests of their organizations, noting the challenges of scaling to meet the conservation need, efforts to restore native forage in Midwest states, and the challenge of incentivizing restorative grasslands management (particularly on highly productive agricultural landscapes) and tracking the provision of benefits. Additionally, the potential role of new partnerships and outreach to consumer markets were discussed.
- Panelists discussed the importance of grasslands conservation. Restoring and sustaining desired game species such as pheasants and quail, increasing biodiversity on the landscape, and improving watershed health quality for communities (ex. rural communities and stream systems), increasing climate resilience, and providing nature-based climate solutions were identified as being highly important.
- Participants discussed trends in conservation. A significant increase in partnerships was noted, especially recent efforts to engage agriculture and commodity groups to expand the umbrella and impact of conservation efforts. Additionally, new mechanisms of value creation (such as developing ecosystem service markets) for corporations, shareholders, and stakeholders from conservation have been developed and can be better communicated to enhance uptake. This trend was noted as especially important because it can enable profitability from conservation for agricultural producers and others in the value chain as a supplement or

alternative to absent/inadequate/less desirable government incentives to incorporate conservation practices. Panelists discussed funding partner engagement, technical assistance, and collaborative workshops as important mechanisms for NGOs to further advance their work.

INTERESTS IDENTIFICATION EXERCISE

Summit attendees used the virtual polling software Mentimeter to provide feedback on their interests in grasslands conservation. Participants then convened in small group discussions to share their responses. Word clouds generated from poling responses are included here as Figure 2 through Figure 5, and full results from polls are included as Appendix B.

WHAT COMES TO MIND WHEN YOU THINK OF "GRASSLANDS?"

Figure 2: Poll Response to "What comes to mind when you think of 'grasslands'?"

WHAT IS YOUR "WHY?" FOR GRASSLANDS CONSERVATION?

Figure 3: Poll Response for "What is your 'Why' for grasslands conservation?"

HOW DO YOU ADVANCE GRASSLANDS CONSERVATION?

Figure 4: Poll Response for "How do you advance grasslands conservation?"

HOW WOULD YOU IDEALLY HELP ADVANCE GRASSLANDS CONSERVATION?

Figure 5: Poll response for "How would you ideally help advance grasslands conservation?"

BREAKOUT DISCUSSIONS: COLLABORATIVE INTERESTS AND POTENTIAL ACTIONS

OVERVIEW

COLLABORATIVE AREAS OF INTEREST

Building on themes identified by attendees via polling, nine topical breakout discussions were convened. These topics represented initial areas of shared interest amongst attendees under which potential collaborative actions could be undertaken:

- *Agricultural Economics and Market-based Approaches*
- *Biodiversity and Wildlife*
- *Climate Resiliency and Carbon Retention*
- *Community and Coalition Building*
- *Ecosystem Services (Soil Health & Water Quality)*
- *Fire Management*
- *Human Health and Flourishing (Multivariable Determinants of Health)*
- *Land Use Conflicts (Energy, Urban/Rural)*
- *Ranching, Grazing, and Cattle*

HOW AREAS OF INTEREST WERE IDENTIFIED AND DISCUSSED

In facilitated breakout discussions, Summit attendees further developed the conservation needs associated with the topical areas, mapped existing activities and resources, and developed potential recommendations for collaborative actions that could be taken regionally to advance achievement of shared native grasslands conservation goals. Participants were asked to answer the following questions:

- What activities and resources (e.g., research, programs, etc.) exist that should inform collaborative opportunities?
- What can we learn from previous efforts to plan, strategize, and implement grassland conservation? What should change?
- Who and what do we need to meet our goals that we have not engaged yet? Why?

On Day 3 of the Summit, attendees participated in small group discussions to further detail potential collaborative solutions in the form of an Action Plan, consisting of Objectives within the topic areas, Strategies to achieve the Objectives, and discrete Actions that could be taken, aligned with the Strategy. For each potential Action, participants were asked to identify the Desired Outcome, the Performance Measure(s), the Timeline, Key partners and participants, and Capacity needs required to execute the Actions effectively.

Each Focus Area is listed as a sub-header below, under which is detailed information shared by participants: existing activities to learn from, lessons learned from prior grasslands conservation efforts in the Midwest, potential partners and stakeholders interested in the area of interest, objectives for cross-sector collaboration on Midwest grasslands conservation efforts in these areas, and a suite of potential collaborative actions that could be undertaken by a Midwest Grasslands Collaborative.

COLLABORATIVE ACTIONS

AGRICULTURAL ECONOMICS AND MARKET-BASED APPROACHES

ACTIVITIES AND RESOURCES

- Corporate conservation/sustainability commitments are driving change. Example: **U.S. Roundtable for Sustainable Beef**

PARTNERS

- Banker and Lender Systems
- Grasslands 2.0

- Iowa State
- Land Grants
- National Institute for Food and Agriculture
- University Ag Economics Programs
- USDA

OBJECTIVES

- **Addressing programmatic ramps, and a revolving door and/or off-ramp for market-based success.**
- **Focus on supply/demand disconnects or bottlenecks from the beginning:** Supply chains are very hard to trace - Traceability/bulk buying, defining and aligning on outcomes and definitions, and complexity, especially when considering tradeoffs and scale we will need.

COLLABORATIVE ACTIONS

- **Supply Chain Mapping:** Focus on supply/demand disconnects or bottlenecks from the beginning. Analysis should be by land use/activity (e.g., stocker programs, beef cattle, row-crop production) and by segment (e.g., Distributors, Processors, Institutional Buyers, Consumer Packaged Goods (CPG) companies). Assess who is buying, what is being supplied, and where the market is. Seed supply chain - identifying/promoting jump-start of native seed suppliers (land to harvest from). Outcome - accounting of plausible leverage points in the system. Systems thinking. Appreciative inquiry - where can we affect change, where do we have leverage, and how does it connect with goals. Grassfed livestock market development study/building/branding
  - *Participants*:
    - Agriculture (row crops) are likely engaged in this.
    - GM/Nestle/etc. - supply shed; complex system for their products and outcomes: Extremely difficult for grain markets. Significant industry demand. Difficulty tracking (e.g., supply chain transparency/block chain). Conservation-branded commodity products.
    - Broker Services - knowledge of landowners, their "driver"/market interests, match making with buyer markets (grouping demand with viable supply markets.)
    - The Nature Conservancy
    - Defining specific grasslands and businesses interests to be able to better connect what we want to accomplish for conservation for grasslands to be able to make the pitches to business
    - Biologists may not have these answers, need others engaged. Social Science inquiry
    - ~2014 SD Grasslands System Accounting example
- ***Social Science Analysis:** Defining specific grasslands and businesses interests to be able to better connect what we want to accomplish for conservation of grasslands and consequently be able to make the pitches to business (ex. 2014 South Dakota Grasslands System Accounting)
- **Product Labeling, Certification and Verification Program Assessment and Engagement:** Pull from multiple resources, including state sustainability and land/water programs, the Sustainable Forestry Council, Audubon conservation ranching training resources, and others.
- ***Stakeholder Engagement Materials on Economic Considerations:** Develop financial value-per-acre modeling and case studies for different users and "adder" activities (e.g., Native Pasture Lease for Stocker Programs, Biofuel, Seed/Native Seed, Eco/Tourism, Carbon Sequestration, Recreation Leases, Feedstock Production, Flood Control, Water Quality). Engage multiple audiences, like Government Buyer Programs.
- **Increase Technical Assistance Capacity and Training/Knowledge for Cattle.** Good technical training available for wildlife management, lacking for cattle.
- **Assessment and Promotion of Local Solutions:** Step down analyses to regional/local scales to engage community-based solutions while identifying champions at each scale/within each geography. Serve as a forum for information exchange on local ideas, case studies, and collaboration to advance those ideas regionally. Use case studies of what has worked, appealing to those who have not bought in, to bring them along.

- *Partners*:
  - Extension programs, producer programs - well regarded.
  - Universities Ecology/Ag dept intersections
  - Testing/partnering with "practice entrenched" farmers to shape the solutions.
  - Local food coops, farm-to-table success stories. Scaling/replicating, understanding the how/why, and being able to teach and re-produce/extend. Buy local movement.
  - Family Forest Carbon Program
  - American Forest Foundation - background/case study
  - General public
  - Legislatures
  - Private lands committee at MAFWA?
  - Association of crop consultants - getting engaged in those discussions.
  - Continuing education.
  - Conservation agronomists.
  - Coops hiring.

BIODIVERSITY AND WILDLIFE

ACTIVITIES AND RESOURCES

- **DoD** conservation model - replicating both on/off installation
- UK has a model, **DEFRA** biodiversity offset mandate
- What is adding new acres of grassland (largescale native grassland)
- Mentality of farmer, not put anything extra on the ground they don't need (comms + pro-farmer) - sequencing/extra is bad/costly - breaking out of the 1-1 farmer conversations, network building for cohesive conversations/messages.

PARTNERS

- Educational Institutions (K-12, Colleges and Technical Schools, Youth Programs)

RECOMMENDED ACTIONS

- **Data Mapping & Addressing PII/Sensitive information Exchange**: PII (Personally Identifiable Information), and its relationship to participation in private lands conservation programs (ex. CRP), presents challenges to effective data sharing. Possible solutions include exploring the USGS/USFWS - conservation efforts database - spatial tracking of conservation activities, aggregated at watershed level conservation data (e.g. a spatial scale where PII is included but not precluding sharing/analysis).
- **Developer Education and Engagement:** A suite of potential educational topics and resources are needed to ensure that stakeholders are well equipped to engage in future conversations regarding urban fire management (St. Louis and Little Rock prescribed fire plans), urban sprawl (Homeowners Association engagement), managing land/use conflicts, and integration of conservation into urban development (Erie, CO example of matching housing development and greenspace acreage).
- **Engage Federal Funding Programs:** The collaborative can engage a unique cross-sector perspective to weave in participation from across agencies at the US Department of Interior and beyond. Can serve as a clearinghouse for information exchange about grant applications and recipients to engage on the topic of grasslands, help advance DOI initiatives by better integrating conservation into social programs (e.g., rural development/rural aid, integrating nature-based solutions into HUD housing planning), and support state agency partnerships.
- **Partnership Development Training/Support Program**: Help develop resources and support their use to foster partnerships. Help partners define need, find partners, build relationships. Identify means to share resources - reducing costs/complexity in partnership agreements.

- **Stakeholder Engagement Materials for Decision Makers**: Decision maker information/capacity building - better inform decision/policy makers about how decisions affect biodiversity. What if every law had to assess biological impacts aka a biodiversity Environmental Impact Statement?
- ***Stakeholder Engagement Materials on Economic Considerations:** Assess and create communications materials around cost savings, benefits delivery, and adder uses. It is difficult to frame biodiversity as economic benefits. Consider how certifications (ex. Audubon certified beef), voluntary corporate commitment frameworks (e.g., Science-Based Targets for Nature), biodiversity credits, and regulatory requirements play into the final economic benefits analysis.
- **State of the Science**: Support a baseline assessment that can help assess the scope of the biodiversity challenge, building on existing resources like: Biodiversity information network (e.g., NatureServe initiative.), Fed agencies/AFWA meeting.
- ***Youth Engagement and Education:** Develop a suite of educational materials (ex. green growth toolbox) and seek out opportunities to include biodiversity into professional graduate/credentialing programs, foundational learning about biodiversity in K-12. Start with an assessment of where are the programs/activities, gaps, and how to fill the gaps.

CLIMATE RESILIENCY AND CARBON RETENTION

ACTIVITIES AND RESOURCES

- **Resources**
  - Sequestration - Randy Jackson's lab - Cropping Systems Experiment
  - Resiliency and Adaptation
    - NRCS Environmental Quality Incentive Program (EQIP)
    - NRCS Regional Conservation Partnerships Program (RCPP)
    - Studies of impacts from natural events (ex. South Carolina peat loss)
    - Midwest Climate Adaptation Science Center (USGS)
    - U. Mo/Mo DNR - Precision Ag analysis (Follow-up to identify additional information)
    - U. Minnesota - Quantify the economic value of nature
- **Lessons Learned**
  - Incentives are needed to encourage mapping conservation in with personal/communal benefits.
  - Messaging must balance complexity. Realistic approach to communicating the role of grasslands in carbon sequestration should be attentive to the varying characteristics of grasslands, larger carbon cycle that it occurs within
  - Systems management and balance before resilience.
  - Resilience of grasslands systems, with recognition that change is inevitable. Framing of how impacts from climate change are affecting the ability of grasslands to deliver benefits.
  - Clarify the roles of distinct grass mixes and how they implicate this.
  - Community resilience and the role of grasslands in supporting those efforts.

PARTNERS

- Private Landowners
- Industry
- Local Community Members and Decisionmakers
- Seed Growers
- Farmer-Led Groups (Can be the best messengers as trusted advisors)
- Health Industry
- Insurance Industry (Private, Public)
- Legislators (Potential advocates for policy change)
- Research and Academia (State of science on climate retention)

OBJECTIVES

- Answer: Resilience for what? May be highly context dependent.
- Address adverse Farm Bill incentives.
- Analyses of individual species and overall systems resilience to climate change impacts.
- Analyses of competing land use evaluation for comparative benefits (ex. micro-systems)
- Addressing programmatic ramps, and a revolving door and/or off-ramp for market-based success.
- Addressing communications challenges -
    - Who can speak on a national campaign? Who are the appropriate, trusted representatives in communities?
    - Social sciences insights into behavior change, messaging, etc.
    - Who can communicate benefits differently to the public related to grasslands conservation. Should be in terms of communal benefits, rather than as quantified benefits of resources.
- Valuation of different, new incentives for grasslands on this scale (ex. rising risk characteristics for grasslands and their insurers, native seeds as a value stream for landowners)

COLLABORATIVE ACTIONS

- **State of the Science Assessment:** Analyses and structured informational exchange around what is known, and not known, about how grasslands contribute to climate resiliency, adaptation, and carbon retention. Build on existing resources (ex. Nature Magazine, Iowa flood-shed study on comparative land uses, all resources from yesterday)
    - *Desired Outcomes*:
        - Serve as the fact-based information to develop best management practices for climate resiliency and sequestration, both for landowners (grasslands expansion) and land management organizations (grasslands retention). Inform planning.
        - Deliver designations as USGS Priority Ecosystems
- **Develop a collaborative, galvanizing statement on the realistic role of grasslands in carbon sequestration, reduced emissions, and broader climate resilience.**
    - *Desired Outcomes*: Support communications to decision makers and constituents to create interest alignment for grasslands conservation.
    - *Who Needs to be Involved*:
        - General public (advocates, voters): Messaging in terms of communal/personal benefits. Societal understanding drives durability.
        - Education institutions (ex. Illinois requirements to understand local tribal nations can be cross-applied here as a mechanism of incentivizing local knowledge of grasslands)
        - Organic Farmers
        - Cattle Farmers
- **Carbon Credit Assessment**: Understanding challenges in forestry and other carbon credit markets, and the comparative value of grasslands as a credible mechanism of carbon sequestration and reduced emissions.
- **Define the factors of climate resilience that we want to prioritize in the efforts of our collaborative, including social/communal resilience.**
    - Plant species resilience - stability to deliver nature's benefits.
    - Wildlife species resilience (especially for local/non-mobile species)
    - Social and communal resilience - Economic viability potentially constrained by insurance availability as a factor.
- **Evaluation engagement tools assessing comparative climate resilience and carbon sequestration benefits from competing land uses to assess benefits** (ex. micro-systems, crop potential vs. solar potential, incorporate analyses of factors like infiltration rates of different uses, etc.)
    - *Desired Outcomes*: Support communications to landowners/producers to create interest alignment for grasslands conservation.

- *Performance Measures*:
  - # of stakeholders engaged.
  - Acres of converted land for those engaged.
- **Analyses of individual plant species, plant communities (by species mix, multi factor), to build and sustain overall systems resilience to climate change impacts.**
  - *Desired Outcomes***:** Incentivize diversity of plant systems, gene flow.
- **Develop materials to help stakeholders understand how to better value climate risk** (ex. rising risk characteristics for insurers across the board - crop insurance, home insurance, etc.) **and economic benefits of value streams generated from climate resilience efforts** (ex. haying, growing native seeds as a value stream for landowners)

COMMUNITY AND COALITION BUILDING

ACTIVITIES AND RESOURCES

- **Activities and Resources**
  - Asset based approaches - anthropological method to listen, learn, and map out given assets within a community.
  - What community are we focusing on? Is this rural, urban?
  - The grassland conservation community - can be broad
  - Connection to place - place itself can be larger landscape connections. Mapping that out - Social Network Analysis for example. First step, finding out what these communities want.
  - Examples of ways to engage - Prairie Enthusiasts have staff that can help and characterize/inventory what a landowner has (and then associated management plan)
  - Field Trips. Get people outside with others who have similar interests
  - Hdgov - a lot of resources to better understand communities (data to be available)
    - https://doi.sciencebase.gov/hd/#/
- **Lessons Learned**
  - From a state agency level, we've just had too narrow of a scope for over 50 years.
    - The cost-share method is not adequate - implies that just the landowner gets the benefit, but the broader community benefits as well.
    - Hearing from folks "biologist retired" - losing that connection emphasizes the importance of building relationships.
    - Requires different skills for both (biologist and organizer) and takes time. Re: Time, performance is measured in acres, not partnerships.
  - The top-down approach doesn't work. Focused on landscapes but anchored on communities.
    - Requires investment.
    - Landowner led, agency supported, local champions are paramount.
  - Need for outreach coordinators - financial assistance has worked in the past
  - Examining inherent biases and finding ways to include other perspectives
  - Forming groups/coalitions requires certain thresholds (number of landowners, amount of land owned, etc.). As such, the government can support certain groups and not others. May lead to power dynamics (such as a heightened focus on landowners over farm laborers) since communities exist on broader sociopolitical spheres.
  - Social Science & Outreach/Engagement can be coordinated but are often confused for each other.
  - Drastic decline in NRCS locally supported outreach programs with landowners since the COVID-19 pandemic
  - Stewardship, beyond getting it started (the prairie), takes years to fully develop these systems.
  - Prairie Enthusiasts will often support lower priority projects to help build communities and trust between those areas and landowners. How can organizations that rely on soft funding capture that and produce deliverables for grant funders?

PARTNERS

- Local fire departments
- Partnerships: The group noted the abundance of multijurisdictional grant opportunities that encourage public and private partnerships. The group listed a few organizations engaged in community-centered work. These included the South Dakota Grazing Coalition, Midwest Landscape Initiative, Loess Canyon Rangeland Alliance, Sandhills Task Force, and National Bobwhite Initiative.
- Volunteer groups
- Producer groups - Certified Angus Beef
- Industry Corporations that have philanthropy in their business model.
- Aquatic conservation staff
- Universities, undergrad curriculums, community colleges to provide grads with technical skillsets to support communities.
- Banks and lenders that have influence on the landscape.
- Real estate brokers in rural communities have a lot of influence over how areas are marketed, valued, and eventually used. As more areas become absentee (following inheritance, etc.), these real estate companies develop influential land management groups.
- Early-career and retired professionals. Demographic diversity can strengthen conservation efforts.
- Policymakers - Cities/Municipalities
- Media, storytelling, outreach.
- Department of Defense - CISA. They have critical infrastructure (clean water, food, etc.). Sentinel Landscapes program.

COLLABORATIVE ACTIONS

- ***Engage Tribal Nations and Incorporate Indigenous Knowledge:** Emphasize the sharing of perspectives for tribal relations. From the Western Perspective, we view land through an "economic" lens.
- **Employ a Multi-Scalar Approach to Coalition Building:** Strong desire to utilize jurisdictional/geographical boundaries to start coalitions. Report from meeting to key groups, MAFWA Directors who requested this, reaffirm their commitment (including virtual follow-up).
- ***Social Science Analysis:** Listen to communities, assess participation and motivational messaging, and include the communities being studied in the assessments as active participants. Can help identify shared values, beliefs, and what one is willing to sacrifice for positive change.
- **Accessible and Meaningful Community Engagement**: Identify who is missing from these community-engaged conversations and devise strategies for inclusion. Organize community listening sessions re: Grasslands, their communities, and the intersection.
- **National Campaign and Related Messaging:** Develop a national campaign with messages focused on communal benefits based on social sciences insights into behavior change, messaging, etc. Reframe the Opportunities: Explore new languages on row-crop agriculture and grassland conservation. Highlight that areas are productive and provide value.
- **Case Studies**:
  - ***Watershed Case Study:** Evaluate an example watershed, before/after impacts, and identify needed community aspects that were critical to success. Triage/Prioritize which Communities where we make most immediate investments.
  - **Demonstration Sites and Other Case Studies:** Develop demonstration sites and clear analysis of how community engagement impacted the success of outreach efforts.
- **Policy and Programs**: Land grants/extension/4H. Policy level/funding support for community organization.

ECOSYSTEM SERVICES (SOIL HEALTH & WATER QUALITY)

ACTIVITIES AND RESOURCES

- **Resources**
  - Modeling tools for landscapes.
  - Natural Capital Accounting
  - Presidential Socio-Economic Ecological Working Group
  - Gulf Hypoxia Task Force
  - Nutrient Reduction Strategies (State-by-State; Example: Iowa)
  - Nutrient Reduction Map (Upper Mississippi - UMBRA How Clean is the River?)
  - Fishtail
  - Lake Erie Ag
  - Ducks Unlimited (Insurance Work)
  - U. Michigan Water Quality
  - Soil and Water Conservation Districts (Assistance Providers)
  - Upper Miss JV - Habitat Systems support tools for shared watersheds.
  - USDA, Agricultural Research Service - Long-Term Agroecosystem Research Network (LTAR)
  - U. Northern Iowa Tallgrass Prairie Center - Root Specimens and Banners
  - Iowa State University - Science-Based Trials of Row crops Integrated with Prairie Strips
  - Efficacy of Farm Bill Practices Study (Notre Dame)
  - Recover America's Wildlife Act (RAWA) (funding and tech assistance)
  - Government of Ohio - H2Ohio
  - Government of Minnesota - Clean Water, Land and Legacy Amendment to the Constitution of Minnesota
  - The Green Amendment: Policy lessons learned.
  - Language of Conservation study: Don't use ecosystem services, instead use the phrase 'nature's benefits'.
- **Lessons Learned**
  - *Point Source vs Non-Point Source*. There are regulatory challenges around non-point.
  - CRP Payments analysis shows they may be less than the value of services provided. More analysis needed.
  - Lessons learned from large-scale landscape transformations (Dust Bowl, Farm Bill, NRCS, etc.)
  - Land of Legacy Amendment - Example of getting grasslands efforts for water quality on the ground.
  - State Funding Pools: Not a lot of state-to-state communication on integrating efforts, sharing lessons learned.
  - Des Moines Water Works Lawsuit
  - Toledo Water System shutdown
  - Partnerships are driving success for industry, partnering NGO/research and academic inputs with industrial action. Social context: Incentivizing environmental conservation efforts for industry.

PARTNERS

- NGOs
- NRCS
- Research and Academia
- Soil and Water Conservation Districts
- Social Scientists
- Philanthropy
- Private Landowners
- Policymakers (Need better understanding of water quality resources) **
- Regulators (Water regulators)
- Industry: Ag Production, Energy, Transportation, Health, Insurance
- Department of Defense (CISA)
- Lake Associations

- Dept of Transportation
- State Water Agencies
- State Departments of Agriculture
- Municipal Officials (Water Supply Managers)
- Youth, youth organizations (advocacy, workforce) **
- Urban audiences**

OBJECTIVES

- **Financial Barriers**: This is an unprecedented moment of program availability, but match requirements are a key blockade to utilization. Consider how we can access alternative streams to access the match (ex. philanthropy).
- **Support the Creation and Dissemination of Important Analyses**: Analyses should attempt to qualify and quantify the short-term and long-term solutions such that people do not become reliant on any individual solution. Additional analyses needed include: Economic Analysis, Accessing an engaged workforce; Market analyses: Addressable markets for messaging, Local analysis of costs to clean water, and analysis of CRP payments which may be less than the value of services provided.
- **Create More Effective and Accessible Messaging**:
  - Partnership in messaging - Collaboration between government, research and academia, industry, and others to advance robust, multi-sector relevant information.
  - A message of land conservation and water quality. Modeling landscapes to analyze watershed impacts. Using these to bolster individual messaging. Can help to visualize success. For example, working backwards from goals to visualize the change needed as part of mobilizing action.
  - Motivating language (human health focus, mutual thriving considerations.)
  - Marketing partial solutions - put it into context.

COLLABORATIVE ACTIONS

- **Define the list of ecosystem services, characteristics of the system that help to deliver those services, and the mechanisms to value those services.** Should include *Water Quality* (Leveraging public benefits of water for grasslands expansion. Runoff, green infrastructure. Drinking water), *Soil Health, Habitat*, and more.
- **Analysis and Map of Cost Match Resources: Map of supplementary materials and potential solutions (financial assistance, grant programs) to address the onerous costs required to make a cost match.** There is an unprecedented moment of program availability, but match requirements are a key blockade to utilization. Consider how we can access alternative streams to access the match (ex. philanthropy)
- **Analysis of Comparative Solutions:** Analyses should attempt to qualify and quantify the short-term and long-term solutions for ecological services such that people do not become reliant on any individual solution.
- **Analysis and Demonstrations Showcasing Alternative Value Streams as a Financial Incentive:** Analyses and case studies of how ecotourism and other recreation opportunities (Hunting, Fishing, Swimming) can be a value stream for private landowners to pay for, and make productive, the development of ecosystem services. Additional value streams can include grazing, haying, native seed production, etc. (examples: Honey Break - EQIP, natural prairie Wildlife (modeling via government assistance), Shaw Nature Preserve, resources from yesterday's discussion)
  - *Desired Outcomes:* Landscape scale demonstration of a watershed that showcases robust ecosystem services.
  - *What We'll Need*:
    - Baselining: Analysis of comparative solutions (before and after) on a demonstration site.
    - Analysis of technology availability/implementation considerations at smaller scales: What alternative technologies do we have to drive these impacts? Can we consider closed system, smaller scale approaches that can move the needle?

    - Analyzing equity, comparative risks/conflicts of solutions, including what we're willing to accept in terms of conflict between driving grasslands development vs. equity/access. Incorporate best practices into demonstrations.
        - Ex. Do small scale developments conflict with landscape approaches? Can they scale? How can they integrate with other systems at scale?
        - Ex. Hunting - Leased hunting has risks that impact overall community development. Exploring public access to private lands, other pieces to help keep benefits in the community.)
    - Identify typical watershed for comparison.
  - *People to Include*:
    - Communicators
    - Hunters, other recreational users.
    - Local communities: Help to inform benefits, thinking through equity and baselining analysis.
    - Decision makers: Game commissions (permits), landowners and managers, corporate entities.
- **Tools and training to model landscape watershed impacts.** Can help to visualize success. For example, working backwards from goals to visualize the change needed as part of mobilizing action. Local analyses of costs to clean water compared to grasslands conservation can bolster efforts to incentivize change.
  - *Desired Outcomes*:
    - Materials to support model projects for communicating with residents.
    - # of engaged communities using resources/model projects.
- **Planning to develop and access an engaged workforce, especially youth.**
  - *Desired Outcomes*: Changing how education occurs on these issues, leading to more students with access to this education.
  - Key Participants:
    - Educators
    - University administrators
    - Students
- **Audience Analyses and Communications :** Multi-sector collaboration to develop motivating messages regarding grasslands conservation and water quality (human health focus, mutual thriving considerations.) Need to balance awareness raising/immediate need, with messaging that will promote action. Market grasslands as a partial solution for provision of ecological services and provide context for grasslands as a long-term solution that should be buttressed with short-term solutions.
  - *Desired Outcome*: Determine the key entities and appropriate audiences for messaging to provide a distinct vision of conservation for those audiences.
  - *Key Participants*:
    - Social Science Researchers
    - Communicators
    - Economic Development agencies
    - Environmental consultants: Connect point source with professionals to help develop market-based tools (ex. Wisconsin Water Quality Training Programs)
    - Environmental lawyers
    - Ag Research Service (ARS)
    - Land Grant Universities
    - Health professionals: Insurance companies, local hospitals
    - Health regulatory agencies (CDC, etc.)
    - Infrastructure owners, managers, and organizations representing their interests:
    - City, county engineers, land use and zoning, and other infrastructure managers: Can help advance better siting decisions, connections with policymakers.
    - State Departments of Agriculture
    - State regulatory agencies
    - Soil and water commissions

- US Army Corps of Engineers
- Water sourcing managers

FIRE MANAGEMENT

ACTIVITIES AND RESOURCES

- **Activities**
  - USFWS will adopt regulations on burns. There is uncertainty about what rules will be implemented and their impacts. There will be tradeoffs in habitat management.
  - Recent ruling from EPA may make Rx Fires more difficult during growing seasons.
- **Lessons Learned**
  - Possessing certifications may be a barrier to prescribed fires (individuals may be certified to fight fires instead of starting them).
  - Federal agencies are hampered by dispersion of funding for fire suppression on wildland/urban interface. Need to shift funding decisions from suppression to prescription for natural resource purposes/ecological objectives.
  - Navigating different laws. Ex: In Nebraska, fires are only allowed with a fire chief's written permission. Insurance - liability is an issue.
  - Fighting wildfires strains resources.
  - Landowners generally don't understand the benefits of burning.

PARTNERS

- Fire Science Consortiums.
- The Nature Conservancy of Iowa - can share resources.
- Southern Fire Exchange has a list of all the PBAs across the country.
- State Level Prescribed Fire Council. State-level training.
- NRCS - outreach & education to increase buy-in.
- Rx Fire Coordinators for private land burns.
- State prescribed fire councils can increase scale of outreach.
- PBAs that give money for necessary equipment (ex: burn trailers) to landowners. "Neighbors helping neighbors" mentality that can cultivate partnerships.
- Land Trusts and other land management NGOs.

OBJECTIVES

- **Capacity-building**: Teach landowners about fire and burning. Ensure people in certain positions have the necessary knowledge and training (Fire Chiefs, etc.). Create a better understanding of the role of Prescribed Burn Associations (PBAs), the benefits of burning, the responsibilities of landowners, and the power dynamics between landowners and government.
- **Local Knowledge**: Understanding local burn cultures and helping non-fire communities be comfortable with fire in their landscape. In certain states, people may react to smoke very differently.
- **Enhance state/federal government collaboration**.
- **Explore Rx Fires and how they can control invasive species** including how researchers can collaborate to scale up research.

COLLABORATIVE ACTIONS

- ***Engage Tribal Nations and Incorporate Indigenous Knowledge:** Understand where fire is used by learning from indigenous burning cultures, incorporating historical Tribal Nations perspectives into the development of best practices.
- **Analyze and Promote Rx Fire Practices:** Assessments can take the form of extended partnerships to scale up fire research (ex. how climate change impacts Rx Fire). Public communications should express societal benefits.

Report the number of fires each year, acreage, staff members, etc. Evaluate effectiveness of fires over time. Share success stories (Ex: Crop Burn Week in Iowa). The goal is to get leaders to change the way they view prescribed burns.

- **Assess Liability:** Analyze liability concerns (shared liability, etc.). Secure cross-state insurance policy coverage.
- **Create Reciprocity**: Different agencies across the country have different capabilities and knowledge bases - reciprocity of the most effective strategies and programs is needed.
- **Grass Banking**: Facilitates fire in production settings for livestock.
- **Regional Policy Mapping and Engagement**: Map and make recommendations regarding fire policies on a state-by-state basis to address regional misalignment. Additionally, explore forums to engage regulatory agencies on policies that limit fire: US Environmental Protection Agency regulations on PM 2.5, US Fish and Wildlife Service Section 7).
- **Training**: Build on existing training efforts to ensure people in certain positions have the necessary knowledge and training on proactive burns, smoke management, and other fire management practices. Audiences include Fire Chiefs, Natural Resources Conservation Service (NRCS) planners, and technical staff at Community Colleges.

HUMAN HEALTH AND FLOURISHING

ACTIVITIES AND RESOURCES

- **Activities**
  - Existing research on benefits of green spaces in urban areas on physical and mental health.
  - American Bird Conservancy Conservation and Justice Fellowship: Explores neurodiversity (array of how brain works, e.g., down syndrome, autism, array of symptoms). Burn trailer that could create “pop-up” trails for sensory accommodations.
  - HDGov: Human Dimensions of Natural Resources, US Geological Survey
  - A lot of data identifying high cancer rates/birth defects - resulting from contaminated water/ag run-off
  - Birdability.org - mapping tool to score nature areas for their accessibility
  - Iowa State University STRIPS programs
  - Green Schoolyard programs - conversion of playgrounds to incorporate green space. Impact on test scores and neurodiversity.
  - Nature Dose app - relating human health to green space exposure. Nature Rx - similar program.
  - Three emergent themes - (1) Improving Accessibility, (2) Quantification of Benefits to Human Health, (3) Social Science.
  - Planetary Health Alliance - Coalition of 100 organizations. Impacts of climate change to physical health - reframing to direct impacts
  - One Health - specific focus of land-grant institutions/international focus.
  - Might be important to differentiate physical health, mental health, and broader well-being (the latter of which includes safety, equity, and justice.
  - How we talk about health and our understanding of differences is changing rapidly.
  - Peoples’ satisfaction is affected by co-location with wildlife.
  - Community-centered conservation.
  - Indigenous knowledge. Western Society does not recognize those values as explicitly. The concepts of value and interconnection are interwoven. Intrinsic values of plants - medicinal, etc.
- **Lessons Learned**
  - *Consider the language that we use*. The language of ‘ecosystem services’ may not resonate as well with broader audiences, but this communication breakdown can be assessed and addressed through social science approaches.
  - *Incorporating social science as storytelling and evaluation are key*. Include social scientists at the front end of grassland efforts to best connect with people. In states such as Michigan, people are surveyed as to why they come to state lands, how they use them, and their experiences on prairies. Social sciences can be used to explore incentives around Farm Bill programs to improve human health.

- *Include One Health metrics*. An integrated approach should be used to plan, design, and implement conservation strategies on a local, regional, and national scale.
- *Think about how to change local cultures and understanding.* Need to evaluate at the social scale - family unit, neighborhood, and community.
- *Explore the role of Indigenous knowledge and Tribal Nations*.

PARTNERS

- Health Departments
- CDC
- Tribal Nations
- Environmental and social justice organizations
- Developers
- Local government
- Urban planners and zoning laws
- Food industry
- Pharmaceutical industry
- Insurance industry
- Oversight agencies such as the FDA
- Philanthropists
- Celebrities
- Economists
- Corporations
- Disability and underserved communities
- How does Farm Bill define "underserved?"
- Educators: Education in collegiate agriculture programs - is it reciprocal? Prepare the next generation of conservationists.

OBJECTIVES

- Build a coordinated and organized movement with bold visions.
- Answer if we are using human health as a strategy for grasslands conservation, or vice-versa?
- Communicate benefits of grasslands on human health.
- Influence policy at multiple scales. Grasslands Act built on the Health & Well-Being of People.
- Engage with Education to develop the next generation.
- Design opportunities with accessibility (including neurodiversity, physical diversity, and others) are at the forefront.

COLLABORATIVE ACTIONS

- **National Campaign:** The development of formal partnerships and collaborative messaging to promote a vision for rural and urban landscapes that embrace grasslands based on societal benefits. The campaign should be informed by social science analysis of motivational messaging by audience and build upon robust community engagement. Should include specific regulator outreach strategies, like Departments of Transportation.
- **Prioritize Accessibility:** Ensuring access will be needed across planning and implementation. For example, at the Illinois State Fair, there are designated areas for sensory-accessible experiences, which these efforts can learn from to ensure inclusive, meaningful engagement.
- ***Social Science Analysis:** Profile of current and future demographics of agricultural community in the Midwest. Ensuring a collaborative has an inclusive and representative vision for all groups.

- **Analysis of Zoning and Ordinance Policies:** Urban planning decisions have significant impact for urban grasslands development. Evaluate preferable ordinance and zoning policies and develop materials to support implementation.
- **Develop economic models that calculate the cost to human health**. Need to bridge the economic/mental health aspects of producer's perspectives, and the health outcomes of the users or nearby residents of those areas. Build off Randy's existing research and other resources. Ex: Comparing grass-fed beef to crop/soybean rotations. Or Research interchange of climate change/disease transmission (mosquitos, etc.)
- **Policy Analysis:** Farm Bill - How are "underserved" communities defined and how does it differentiate from how states and others define it? How can Human Health Metrics/Requirements be built into Farm Bill policies and subsequent interpretation documents from agencies? Should include conservation practices and SNAP.
- **Analyze and develop education in collegiate agriculture programs**. We often include agriculture (as a program) in our teachings re: natural resources, is that often reciprocal? How do we inject that perspective?

LAND USE CONFLICTS

ACTIVITIES AND RESOURCES

- **Activities**
  - Risk Surfaces: Conservation mapping tools getting ahead of loss.
    - Conservation Opportunity Areas: Gets you funding for research, costs of conservation.
    - SWAP Lands
    - MLI Mapping Tools
    - DOE Wind Maps
  - Easements
    - Federal easement programs
    - NGOs and Land Trusts
    - Local Governments
    - Constraint: Wind easement (Minnesota DNR experience)
  - Zoning and Land Use Planning
  - Habitat Plans (Wisconsin DNR) - Has helped in getting sites adjusted
    - Land pricing and energy interface
    - Urban re-use (e.g., covered parking lots, etc.)
  - Native Prairie Requirements for Utility-scale Renewables Installations (Minnesota DNR)
    - Open question: community-solar
  - Rights of Way as Habitat Working Group (U. Illinois-Chicago)
  - Solar Pollination Study - PHASE - (U. Illinois-Chicago)
  - Transmission Planning Studies protecting WMAs, Refuges, and other public lands from Greenfield development
  - Iowa State resources regarding mowing (Ex. Lawns to Legumes)
  - Public planning documents and planning sets
- **Lessons Learned**
  - Aligning timing of public activity with industry needs. Easement experiences provided a salient example: In 2019 in Iowa, EWP funding for floodplain easements. Some easements have yet to close. Additionally, no cost adjustment comparable for land value gains. Extended process can create attrition, impact trust.
    - Potential solution: Program policy tweaks to align NRCS and others with USFWS/State Agency programs that can move an easement to a Land Trust to close and then send back. Additionally, other mechanisms to generate partner action (TNC, Conservation Fund w/Milwaukee Sewage District to speed up RCPP easements)
  - Exploring how to incentivize energy production more proximate to load (rooftops, parking lots, etc.)
  - Modifying incentives related to open lands development. Costs. Contributors: Codes and land use.
  - Public planning documents and planning sets

- Grassland Restoration Incentive Program (GRIP)
- Landscapers and Horticulture Industries: Incentivizing and promoting alternatives to turf grass, native plants. (MO Grow Native Program)
- TVs: Putting biologists into the local communities
- Working Lands Experience: Local partnerships. Partners bring the knowledge of where prairies are, program funding, and the focused effort at the local level.
- Chicago Wildness Area Experience: Early engagement and diverse engagement.
- Using existing risk surface resources to advance better siting decisions - encourage understanding of the significance of protected Greenfields. Project experiences identifying the corridors and keeping it open: both enabled grasslands development.
- Utility partnerships:
  - Partnerships with utilities to get funding for conservation. Solar installation collaborations were enabled by existing relationships.
  - Challenge: Difficult to scale. Weren't pushing to move this beyond the individual level.
- Meet Industry where they are at: Certain practices can drive a positive ROI and move the needle on conservation: Conservation mowing, targeted herbicide use, reseeding with native prairies, etc.

PARTNERS

- AFWA/Conservation Agencies: Farm Bill Platform providers
- Commodity Groups (Soybean Association is in the room)
- Environmental Law Institutes
- Farm Bureau
- Landscapers and Horticulture Industries: Incentivizing and promoting alts to turf grass, installing of native plants in both urban and rural areas. (Ex program/MO Grow Native Program, Lawns to Legumes)
- NRCS - Easements Teams
- Utilities

OBJECTIVES

- **Tools and training to model landscape watershed impacts.** Can help to visualize success. For example, working backwards from goals to visualize the change needed as part of mobilizing action. Local analyses of costs to clean water compared to grasslands conservation can bolster efforts to incentivize change.
- **Mitigation strategies when greenspace development happens**. Adapt wetlands systems for grasslands.
- **Policy Analysis and Proposal**: Redlines and analysis of benefits and costs for Farm Bill Crop Insurance - Need to disincentivize adverse land use/ 'farming' crop insurance. Taking bad land out of production is a net good. Explore support for North American Grasslands Conservation Act, Nationwide Sod Saver, etc.
- **Program Change**: Building programs to address alternatives to turf grass in urban and rural areas for landscapers and horticulture industries. Enhanced industry data availability (ex. land purchase rates) and their impact on ability to scale conservation.

COLLABORATIVE ACTIONS

- **Redlines and analysis of benefits and costs for the Farm Bill: Crop Insurance, Commodity Payments**. Need to disincentivize adverse land use/ 'farming' crop insurance. Taking bad land out of production is a net good. *Key Partners/Resources*:
  - Educators and Students
  - Hunting Groups
  - Precision Ag
  - NGOs (ex. ABC, NWF, TNC, WWF)
  - Environmental Working Group

- **Analyses of comparative land uses and existing valuation strategies of decision makers**. **Communications building on these analyses to instill these values to community and decision makers.** Will need to be modular, given that ideal land use characteristics can be different between states.
  - *Desired Outcomes*:
    - Case studies of how alternative practices (precision ag technologies) can deliver better practices.
    - Avoided impact: # of acres for energy development shifted toward load.
    - Climate: Need to be aligned on potential conflicts with renewables deployment, and how the items are communicated to the public.
- **Best practices around integration of conservation strategies with alternative land uses, like utility scale solar developments, to incentivize better management practices.**
  - *Actions*:
    - Informational materials related to best practices for grasslands management on energy developments, including case studies of doing it right.
    - Identify Technical Assistance resources to support implementation of best practices.
    - Explore existing policy and gaps in policy to incentivize grasslands implementation and management (ex. permitting requirements, contracting)
- **Easement Analyses: Analyze impacts of different rights and how they implicate viability of easements as a conservation vehicle.** Analyze easement compliance: What is the status of easements? Are they compliant? Develop Midwest conservation easement database: Ex. maps/Colorado, Minnesota
  - *Desired Outcomes*:
    - Stable and/or growing # of easement acres in the Midwest.
    - Aligning easement timelines and administrative approaches with the needs of private landowners.
    - Conversion to perennial systems.
    - Policy change: Permits require easement maps, as a publicly available GIS layer, to support land use planning.
  - *Key Partners:*
    - NRCS: Data sharing around easements (?)
    - Land use planners and other decision makers in land use processes
    - Local resource providers (ex. open space funders)
    - Land Trusts: Easement managers and some monitor trends/can act as resources.
    - Realtors and real estate professionals: May not be aware of easements, their significance, etc.
- **Analyze transferable lessons from existing mitigation strategies for wetlands conservation applicable to grasslands conservation**. Important for appropriately valuing the costs of greenfield development.
- **Analyze existing programs and develop model programs to incentivize alternatives to turf grass in urban and rural areas for landscapers and horticulture industries.** Includes urban foodscapes.
  - *Key Resources:*
    - Field Museum and other resources.
    - Farmer Programs
    - Community groups (multicultural, community gardens, etc.)
  - *Desired Outcomes*:
    - # of converted acres from mowed land to pollinator habitats (ex. Rights of Way)
- **Analyses of competing land use evaluations for comparative benefits** (ex. micro-systems, crop potential vs. solar potential)
- **Identify strategies to encourage sharing of industry data** (e.g., acres in wind and solar easements), **and incorporate trend information into planning for conservation.**
- **Policy modernization**: Update assessments, as organizations are analyzing soil rental rates using dots. Should be modernized, consider standardizing rates, modernize use of computers.
- **Pass the North American Grasslands Conservation Act**
- **Adopt a Nationwide Sodsaver Provision**

- *Key Partners:*
  - Central Grasslands Roadmap and others tracking impacts and commitments to help drive decision making.
  - NGOs
  - Land Trusts

RANCHING, GRAZING, AND CATTLE

ACTIVITIES AND RESOURCES

- There is already lots of existing information and resources on these subjects. A major constraint is getting it to the right people.
- Need state-by-state information (constraint/priority to ensure local data generation and sharing)

OBJECTIVES

- **Voluntary/Incentive-Based Approach (As Opposed to Regulatory)**
- **Increase and optimize availability/financing/funding for grazing infrastructure**
  - *Partners*:
    - Lenders
    - Philanthropy
    - Venture Capital
- **Grass/Forage Finishing - Value Modeling:** Native Grasslands. Including go-to-market institutions (e.g., Whole Foods)
- **Incremental Progress is Good:** continuing progress (so native great, non-native also has great benefits) - at larger scale is a different conversation re: changing to native
- **Facilitate grassland coalition startup and activity in all Midwest states:** Collaborate across key audiences, including coalition boards and coalition members, soybean, wildlife, NGOs, and more. This umbrella should be its own entity, noting that it may have to be flexible to address multiple states.

COLLABORATIVE ACTIONS

- **Native and/"vs" Non-native Grasslands Issue Assessment:** Study threats to existing grasslands performance against a series of factors, like droughts, cattle growth, cattle health, and more. Can build on resources (ex. MBGI/Producers Group materials, one-stop-shop for native warm season forages, etc.)
- **Federal Program Assessment:** Explore overall strategy, where resources being allocated, timing of resources, if/where can Program stacking be enabled, case studies navigating these resources, and engagement to support planning (ex. Bureau of Indian Affairs **requirements may conflict with** Best Management Practices.
- **Engagement:**
  - *Smaller/Part Time Farmers* seek lower costs, increase profits, grasslands benefits - Existing grassland and converting to grasslands.
  - ***N**ew Farmers (Generational Transitions)* Capitalizing on new farmer interest/earning/moments for change. Land Capacity - landscape succession planning/mapping to ensure operators have a path forward for continuing to operate. Other examples: Western easement programs.
  - *Non-Conservation Land Trusts/Land Managers* (administering millions of acres, grazing as land management tool, improving practices/value capture) - financial pressure/value modeling
  - *Conservation Land Trusts/Land Managers* (administering millions of acres, grazing as land management tool, improving practices/value capture) - reducing conservation land management costs/modeling (also exploring defining land management - state/fed conservation land managers, lands managed for conservation purposes)
  - *Lenders* to incentivize good management
  - *General Mills/Big Markets*- Buying Mandates, programs, etc.

- *Consumer Marketing* - Build on existing public-facing marketing initiative about benefits of grass-fed beef/native grasslands. Public campaign should be "pro farmer"/ "pro rancher" and engage multiple platforms, including a social media marketing strategy.

CLOSING STATEMENTS AND THANK YOU

Ms. Kelley Myers Tymeson, US Fish and Wildlife Service, and Mr. Doug Gorby, Upper Mississippi/Great Lakes Joint Venture, delivered the closing statement of the Summit on behalf of the Summit Planning Team.

Ms. Tymeson and Mr. Gorby acknowledged the work that's been done and the work that's to come. In their comments they emphasized one of the goals of the Summit, which was to encourage people to leave their comfort zones - noting the belief that through respectful discomfort that action, collaboration, and results are made possible.

They noted a desire for collaboration in the future, noting excitement to take next steps by carrying forward messages from the Summit into the work of individuals and their organizations. Ms. Tymeson and Mr. Gorby also underscored their interest in bringing more voices into this forum, serving as a catalyst for activity that will result in increased grasslands conservation on the landscape.

Ms. Tymeson and Mr. Gorby finished their statements by underscoring the commitment of the US Fish and Wildlife Service and others to maintaining capacity and growing partnerships for grasslands conservation in the Midwest.

Mr. Gershowitz took to the podium one final time to thank the Facilitation Team, partners, and all participants for their curiosity and engagement over the three days and continued participation in grasslands conservation efforts. Following the final statement, Mr. Gershowitz formally dismissed the audience and concluded the Summit.

APPENDICES

APPENDIX A: REGISTRATION LIST

Name	Organization	Role
Abigail Derby Lewis	Field Museum	Senior Conservation Ecologist
Adam Janke	Iowa State University	Wildlife Extension Specialist
Alan Lange	USDA Farm Service Agency	Natural Resources Specialist
Alex Wright	US Fish and Wildlife Service	Landscape Science Coordinator
Alison Little	University of Illinois Chicago, Energy Resources Center	Conservation Partner Coordinator
Amy Symstad	U.S. Geological Survey, Northern Prairie Wildlife Research Center	Research Ecologist
Andrea Kramer	Chicago Botanic Garden	Senior Director, Restoration Ecology
Andrew DiAllesandro	U.S. Fish and Wildlife Service	Iowa Private Lands Coordinator
Anna Buckardt Thomas	Iowa Department of Natural Resources	Avian Ecologist
Bill Moritz	Wildlife Management Institute	Midwest Regional Representative
Brandon Bleuer	Ho-Chunk Nation DNR	Executive Director
Brandon Iddings	Iowa soybean association	Conservation Services Manager
Brent Rudolph	Pheasants Forever	Director of Sustainability Partnerships
Brittany Smith	Monarch Joint Venture	Habitat Program Manager
Chris Kessler	Openlands	Director of Policy
Chris Wilson	Audubon	Conservation Ranching Program Director

Name	Organization	Role
Cody M Rhoden	KDFWR	Program Coordinator
Craig Thompson	Wisconsin Department of Natural Resources	Chief - Program Integration, Natural Heritage Conservation Program
Curtis Elke	NRCS	Regional Conservationist
Dan Figert	Kentucky Department of Fish and Wildlife Resources	Assistant Director, Wildlife Division
David Haubein	Partnerscapes Board Director for Missouri, Round Rock Ranch, Haubein Farms Inc.	Producer Panel Participant,
David Thomson	National Park Service, Rivers, Trails, and Conservation Assistance Program	Program Manager
David Trauba	Minnesota Department of Natural Resources	Acting Wildlife Section Manager
Desi Robertson	USGS, Midwest Climate Adaptation Science Center	Research Coordinator
Devin Stortz	Ducks Unlimited	Private Lands Biologist
Don Kahl	Illinois Department of Natural Resources	Ag & Grassland Wildlife Program Manager
Doug Gorby	Upper Mississippi/Great Lakes Joint Venture	Coordinator
Doug Helmers	Missouri Prairie Foundation	Board Member
Douglas Stotz	Field Museum	Senior Conservation Ecologist
Ellen Herbert	Ducks Unlimited	Senior Scientist
Frank Loncarich	Missouri Department of Conservation	Grassland Systems Manager
Gabriel Miller	Prairie Island Indian Community	Environmental Program Manager
Gerry Steinauer	Nebraska Game and Parks Commission	Botanist
Gordon Myers	Association of Fish and Wildlife Agencies	Landscape Conservation Coordinator
Grace Yi	Practical Farmers of Iowa	Senior Habitat Viability Coordinator
Greg Hoch	Minnesota Dept of Natural Resources	Prairie Habitat Supervisor
Holly Shutt	Ducks Unlimited	Working Lands Biologist
James Ellis	University of Illinois--Illinois Natural History Survey	Natural Areas Coordinator
Jason Gershowitz	Kearns & West	Facilitator
Jason Jensen	Missouri Dept. of Conservation	Branch Chief, Community and Private Lands Conservation
Jason Stevens	US Forest Service	Regional Ecologist - Eastern Region
JC Nelson	US Geological Survey	Regional Science Coordinator
Jeff Matthias	Iowa NRCS	State Grassland Specialist
Jessica Burnett	NASA	Program Coordinator, Ecological Conservation
Jessica Downey	NRCS	State EQIP Manager
Jewel Parker	Winnebago Tribe of Nebraska	Director of Wildlife and Parks
Jim Faulstich	Daybreak Ranch	Owner
Jim Giocomo	American Bird Conservancy	Central Region Director
Joan Flecksing	Sac & Fox Tribe of the Mississippi in Iowa - Meskwaki Nation	Director, Meskwaki Nation DNR
Joe McGovern	Iowa Natural Heritage Foundation	President
John Carlson	U.S. Fish and Wildlife Service	Regional Grassland Conservation Coordinator
John Kaiser	Ohio Division of Wildlife	Private Lands Program Administrator

Name	Organization	Role
John Morgan	National Bobwhite & Grassland Initiative Foundation	CEO
John Strauser	University of Wisconsin-Madison	Scientist
Joseph Lautenbach	Ohio Division of Wildlife	Wildlife Biologist
Justin Meissen	University of Northern Iowa Tallgrass Prairie Center	
Kayla Feist	USFWS	Biologist
Kayla Vondracek	Ponca Tribe	Water Quality Coordinator
Kelley Myers Tymeson	US Fish and Wildlife Service	Midwest Landscape Initiative Coordinator
Kelly VanBeek	USFWS	Wildlife Biologist - Migratory Bird Program
Kenneth S Kesson	Michigan Department of Natural Resources	Wildlife Biologist
Kevin Pope	U.S. Geological Survey	Deputy Chief of the Cooperative Research Units Program
Kristine Nemec	University of Northern Iowa Tallgrass Prairie Center	
Kyle Brazil	Central Hardwoods Joint Venture	Coordinator
Laura Jackson	University of Northern Iowa Tallgrass Prairie Center	Director
Laura Kahler	South Dakota Grasslands Initiative	Director
Lauri Hanauska-Brown	Prairie Pothole Joint Venture	Coordinator
Mary Claire Youpel	American Petroleum Institute	Policy Advisor
Matt Holland	Pheasants Forever	VP of Grant Development
Michele Kille	The Nature Conservancy	Strategic Partnerships Manager
Mike DeCook		Producer
Mike Shannon	Ducks Unlimited	Regional Biologist
Nat Miller	National Audubon Society	Sr. Director of Conservation, Great Lakes and Upper Mississippi River
Nathan Anderson	Bobolink Prairie Farms/Pitcher Land and Livestock	Farmer/Landowner
Neal Niemuth	USFWS Habitat and Population Evaluation Team	Spatial analyst & integrated conservation scientist
Nick Baumgarten	Iowa Department of Natural Resources	Private Lands Program Coordinator
Nicole Alonso-Leach	Indiana Department of Natural Resources	Upland Gamebird Biologist
Nicole Alt	U.S. Fish and Wildlife Service	Director, Center for Pollinator Conservation
Patty Laskowski Morren	GrassWorks, Inc.	Executive Director
Penny Lingle	Ponca Tribe of NE	Deputy Director of Tribal Affairs
Pete Hildreth	Iowa DNR	Conservation & Recreation Division Administrator
Phil Rynish	Wisconsin Department of Natural Resources	Deputy Administrator, Division of Fish, Wildlife and Parks
Randy Jackson	University of Wisconsin-Madison/Grassland 2.0	Professor
Rich Schultheis	Playa Lakes Joint Venture	Coordinator
Rich Wissink	Pheasants Forever	VP of Conservation Programs
Ryan Diener	Ducks Unlimited	Grassland and Grazing Program Coordinator
Sarena Selbo	US Fish and Wildlife Service	National Wildlife Refuge System, Assistant Regional Director
Scott Moats	The Nature Conservancy-Iowa	Director of Lands

Name	Organization	Role
Sergio Pierluissi	USFWS	Regional PFW Coordinator
Seth Watkins	Pinhook Farm	Producer
Shannon Lott	Michigan Department of Natural Resources	Deputy Director
Shaun Grassel	Buffalo Nations Grasslands Alliance	CEO
Shawn Graff	American Bird Conservancy	VP US & Canada
Shawn Krance	USDA-NRCS	State Office Resource Conservationist
Stephen Winter	The Prairie Enthusiasts	Board Member
Steve Chadwick	Michigan Department of Natural Resources and UMGL Joint Venture	UMGLJV Management Board
Suzy Friedman	WWF US	Senior Director, Food Policy
Tanya Duvall-Haubein	Round Rock Ranch, Haubein Farms	Manager
TJ Walker	Nebraska Game and Parks Commission	Assistant Division Administrator
Todd Bishop	Iowa Department of Natural Resources	Wildlife Bureau Chief
Todd Strole	Illinois Department of Natural Resources	Assistant Director
Trevor Reddick	Kearns & West	Facilitator
Tyler Harms	Iowa Department of Natural Resources	Biometrician
Wes Sowards	Kansas Department of Wildlife and Parks	Wildlife Division Assistant Director
Wesley Duarte	Kearns & West	Rising & Emerging Practitioner/Project Coordinator
Will Meeks	US Fish and Wildlife Service	Regional Director

APPENDIX B: INITIAL INTEREST IDENTIFICATION POLLING RESPONSES

This appendix is organized with each row representing the polling responses of an individual attendee in response to four polling questions on Day 1 of the Summit. In total, seventy-eight (78) respondents submitted answers to polling questions. Each respondent has been assigned a number between 1 and 78 for ease of reference. Each bullet point within a cell is an individual response submitted by that attendee to the question prompt in the heading of the table. Edits have been made to responses for clarity, including the resolution of grammatical errors and the spelling of acronyms.

#	When we say "grasslands", what comes to mind?	What is your "why" for grasslands conservation?	How do you currently advance grasslands conservation?	How would you ideally help advance grasslands conservation?
1.	• Birds • Livestock • Clean water	• Community • Wildlife	• Connections • Technical assistance	• Support local initiatives • Markets
2.	• Insects • Beauty • Birds	• Sustaining life • Carbon storage • Responsibility	• Private lands • Pollinator conservation • Partnerships	• Partner with tribes • Co-management
3.	• Habitat • Threatened • Native	• Wildlife • Healthy communities • Conservation	• Partnerships • Science • Funding	• Ecosystem services • Federal legislation • Landscape initiative
4.	• Cattle • Habitat • Birds	• Perennial ecosystems • Rural communities • Bird habitat	• Education • Outreach • Research	• Engage ag sector more • Support rural communities • Subsidize perennial ag

#	When we say "grasslands", what comes to mind?	What is your "why" for grasslands conservation?	How do you currently advance grasslands conservation?	How would you ideally help advance grasslands conservation?
5.	• Prairie • Biodiversity • Water • Quality	• Sustainability • Biodiversity • Water • Quality	• Active Management • Partnerships • Policy	• Regional Collaboration • Balance with Ag • Community • Sustainable Funding
6.	• In trouble • Birds • Soil	• Wildlife • Healthy soil and water • Birds	• Education • Habitat creation • Research	• Buy more land • Provide native seeds • Increased funding
7.	• Pollinators		• Support the field • Partnering	• Resources
8.	• Native • Prairie • Ability to graze • Opportunity	• Opportunity • Need • Partnership	• Partnership • Trust • Strategy	• Common Vision • Trust • Economics
9.	• Upland game bird • Diversity • Restoration	• Species preservation	• Land management • Technical assistance	• Funding • Herbicide development • Policy changes
10.	• Prairie • Pollinators	• Climate resiliency • Biodiversity • Home	• Landscape planning • Partnerships • Policy	• Landscape planning • Policy changes • Funding
11.	• Forbs • Pollinators • Habitat	• Habitat • Climate adaptation • Pollinators	• Partnerships • Science • Trust	• Incentives • Funding • Public trust
12.	• Diversity • Wildlife • Ecosystem	• Future • Birds • Insects	• Education • Profitability • Technical assistance	• Funding
13.	• Roots • Flowers • Cows	• Beauty • My kids • Open space	• Education • Money • Advocacy	• Grasslands coordinator • National grasslands act • Ranch profitability
14.	• Habitat	• Nature-based solution • Climate resiliency • Wildlife habitat	• Policy • Partnerships • Education	• Policy
15.	• Few trees • Fire • Birds	• Biodiversity • SGCN • Landscape	• Education • Management • Partnership	• Markets • Policy • Incentives
16.	• Expansive • Wetlands • Soil health	• Human health • Climate change • Sustainability	• Policy • Voluntary • Conservation • Private landowners	• Policy • Funding • Advocacy
17.	• Habitat • Diversity • Livelihood	• Hunting • Sustainability • Birds	• Partnerships • Working Lands Protection	• Sustainability • Policy • Working Lands
18.	• Prairie • Pollinators • Open	• Biodiversity • Water quality • Carbon sequestration	• Planning • Partnerships • Advocate	• Funding • Acquisition • Smart growth
19.	• Peace • Wild • Healthy	• Children • Health • Future	• This dialog • Demonstration	• Nature investments • Nature-based investments • Private capital
20.	• No trees • Open space • Wildness	• Nature • Soil health • Wildness	• Permanent protection • Restoration	• Permanent protection • Policy • Funding
21.	• Perennial	• Conservation	• Good grazing	• Promote the advantages
22.	• Diversity • Cows	• Diversity • Future	• Land trusts • Grazing systems	• Grazing systems • Adjust renewable fuel standard

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23.	• Cattle • Bison • Green	• Health • Clean water	• Planning • Grassroots connections	• Community engagement • Landscape architecture • Collaboration
24.	• Herbaceous • Prairies • Wildflowers			• Share knowledge
25.	• Grazing • Habitat • Aesthetics	• Enjoyment • Grazing • Legacy	• Grazing • Networking • Education	• More cattle • More time • Field days
26.	• Birds • Beautiful biodiversity • Landscapes	• Biodiversity • Conservation • Compatibility	• Seek compatibility	• Multiple benefits
27.	• Fire • Forbs • Cattle	• Birds • Biodiversity • Ecosystems	• Working lands • Native forages • Prescribed grazing	• Partnerships • NRCS policy • Native forages
28.	• Savannah • Openness • Bugs	• Imperiled system • Native • Fire	• Fire • Profitability • Technical Assistance	• Policy • Regulation • Land use change
29.	• Birds • Value • Function	• Threats • Valuable • Grazing	• Pass a farm bill • Capacity • Communication	• Communication • Value • Producer
30.	• Prairie • Savanna • Stepp	• Wildlife • Bugs • Important	• Education • Partnership • Funding	• Policy • Funding • Education
31.	• Native • Prairie • Reconstruction	• Birds • Wildlife • Climate	• Private landowners • Landscape reconstructions • Working lands	• Profitable • Landscapes • Economical
32.	• Prairie • Bison • Flowers	• Future value • Importance	• Landscape scale • Partnership • Education	• Money • More people • Policy changes
33.	• Endangered • Underappreciated • Home	• Flowers • Biodiversity • Open horizons	• Research • Enthusiasm • Science	• Connect non-grasslanders • Long-term economics • Funding
34.	• Habitat • Multi-use • Protection		• Farmer-led strategies • Education	• Farmer inspiration • Policy • Funding
35.	• Biodiversity	• Heritage	• Better zoning for development	• Indigenous partnerships
36.	• Fields • Openness	• Biodiversity	• Knowledge • Research • Partnerships	• Data • Information • Science
37.	• Grass	• Water health conservation	• Education • Research • Collaborative partnership	• Get people to care • Relevancy - reconnect people to land
38.	• Species of concern • Carbon sequestration • Fertile soils	• Species conservation • Ecosystem values • Soil health	• Strategic restoration • Preserving remnants • Education of value	• Incentivize restoration • Demonstrate shared values • Develop corridors
39.	• Open space	• History • Cattle • Birds	• Funding • Partnerships	• Relevance • Market
40.	• Degraded	• Habitat birds	• Provide funding support	• influence big ag data at relevant scales
41.	• Threatened • Lacking • Biodiversity	• Future • Birds • Love	• Outreach • Policy • Habitat	• Bipartisanship efforts

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42.	• Plant • Diversity • Soil	• Future generations • Clean air and water • Peace	• Stewardship • Awareness • Collaboration	• Diverse native seeds • Engage volunteer stewards • Policy
43.	• Landscape • Wildlife • Working lands	• Future generations • Outdoor recreation • Prairie grouse	• Partnerships • Community • Stewardship	• Urban outreach • Accessibility • Connections
44.	• Oxygen • Nature • Zen	• Community • Future • Oxygen	• Sharing knowledge • Critical thinking • Outreach	• Legislative action • Philanthropy • Spread awareness
45.	• Diversity • Natives • Vibrant	• Sustainability • Longevity • Climate Change	• Promotion • Partnerships • One-on-One Conversations	• Markets • Cultural Mindsets • Advocate
46.	• Grazing • Imperiled • Birds	• The future • Biodiversity • People	• Research • Private lands • Advocacy	• Market-based solutions
47.	• Birds • Bugs • Grazing	• Children • Birds • Grandchildren	• Relationships • Outreach • Markets	• Change behavior • Markets • Policy
48.	• Ecosystem Services	• Healthy ecosystem	• Public engagement • Diverse collaboration	• Biodiversity • Market
49.	• Prairie • Rare • Specialized wildlife	• Diversity • Holistic • Healthy	• Reconstruction • Protection • Legacy	• Paradigm shift • Prioritize • Land protection
50.	• Pasture • Prairie	• Spiritual • Soil health • Water quality	• Technical assistance • Education • Partnerships	• Economically viable • More boots on the ground
51.	• The Great Plains Pasture • Native landscapes	• Restoration • Water quality • Wildlife conservation	• Cover crop grazing • Edge of field buffers • Connect grass corridors	• Markets
52.	• Open horizons • Diversity • Resilience	• Biodiversity • Freedom • Resilience	• Management • Grazing	• Land protection • Restoration • Funding
53.	• Diversity • Working lands • Potential	• Water quality • Healthy working landscape • Sustainability	• Working with producers • Policy • Grassland economics	• Drop Renewable Fuel Standard • Grassland economies • Working grasslands
54.	• Remnants • Functionality • Quality	• Critters • Purpose • Responsibility	• Protect • Restore • Cut Trees	• Implementation at scale
55.	• Diversity • Farmland	• Future generations • Wildlife conservation • Hunting	• Economics • Technical assistance • Community	• Establish markets • Policy changes • Community culture
56.	• Ecosystems	• Biodiversity • Conservation	• Advocation • Science • Information	• Funding • Science
57.	• Important • Undervalued • Habitat	• Wildlife • Cattle • Habitat	• Money • Easements • Ranchers	• Fewer meetings • New strategies • Funding
58.	• Prairie • Grazing • Buffers	• Quality of life • Habitat • Nature based solutions	• Science and planning • Partnerships • Policy and advocacy	• Economic models • Relevancy • Environmental, Sustainability, and Governance investing

#	When we say "grasslands", what comes to mind?	What is your "why" for grasslands conservation?	How do you currently advance grasslands conservation?	How would you ideally help advance grasslands conservation?
59.	• Grazing • Wildlife • Prairie	• Wildlife • Declining • Beauty	• Woody removal • Research • Education	• Ecosystem service values • Engage new audiences • Funding
60.		• Natural	• Example	• Example
61.	• Prairie	• Water quality • Habitat • Natural	• Education • Funding • Collaboration	• Landowner leaders • Markets • Economics
62.	• Prairie • Ecosystem • Wildlife	• Ranch profitability • Water • Biodiversity	• Board member • Manage grasslands • Advocate	• Policy • Urban outreach • Rancher mentoring
63.	• Views • Beauty	• Birds • Conservation • Need	• Technical Assistance	• Grasslands • Movement
64.	• Pasture • Grasslands Conservation Reserve Program • Grasses and forbs	• Conservation • Sustainability • Wildlife	• Education • Outreach • Partnerships	• Agriculture • Grazing • Advocacy
65.	• Prairies • Birds	• Habitat • Pollinators • Carbon	• Grasslands Conservation Reserve Program • Partners • Land acquisition	• Awareness
66.	• Birds' restoration • Prairie	• Declining birds' • Carbon sequestration • Historical	• Bird surveys • Restoration • Urban areas	• Improve connectivity • Pollinators
67.	• Vital	• Wildlife • People	• Partnerships • Coordination • Research	• Support private lands
68.	• Prairie • Biodiversity • Working landscape	• Biodiversity • Human spirit • Beauty	• Research • Technical support • Native seeds	• Funding • Funding • Funding
69.	• Prairies • Cattle • Landscape	• Wildlife • Ecosystem • Responsibility	• Policy • Awareness • Education	• Education • Policy • Funding
70.	• Native range • Prairie • Diversity		• Collaboration	
71.	• Open landscapes • Wildlife • Complexity	• Wildlife • Water • Way of life	• Partnerships • Funding • Focused efforts	• Fed farm policy reform
72.	• Biodiversity • Beauty • Habitat	• Habitat • Wildlife • Nature	• Incentives • Outreach • Funding	• Acquisition • Tax Policy • Agricultural Policy
73.	• Declining species • Working lands • Climate resilience	• Biodiversity • Birds • Pollinators	• Collaboration • Land protection • Funding	• Policy • Increase funding • Incentives for landowners
74.	• Beauty • Home • Place	• Concern • Important • Future	• Volunteer work • Prescribed burning • Educating	• More collaboration • Funding
75.	• Imperiled • Misunderstood • Wildlife	• Wildlife • Sustainability • People	• Awareness • Policy • Synergy	• Implementation • Ecosystem services • Inspiration
76.	• Loss • Opportunity	• Birds • Future • People	• Scale up • Partnerships • Leadership	• Thinking bigger • Funding • Collaboration

#	When we say "grasslands", what comes to mind?	What is your "why" for grasslands conservation?	How do you currently advance grasslands conservation?	How would you ideally help advance grasslands conservation?
77.	• Wildlife • Landscape • Birds	• Species diversity • Gamebirds • Bobwhite	• Management • Technical assistance • Funding	• Strike teams • Market based solutions • Education
78.	• Birds • Loss • Diverse	• Heritage • Clean water • Biodiversity	• Buying grass fed meat • Partnerships	• Policy changes • Dedicated funding

APPENDIX C: MURAL

On the second day of the summit, attendees collectively drew a mural in response to the question, "What do grasslands mean to you?"