From: Central Grassland Roadmap Policy Working Group

Re: Docket ID: NRCS-2022-0015 "Request for Public Input About Implementation of the Inflation Reduction Act Funding"

Dear Chief Cosby,

On behalf of the Central Grasslands Roadmap effort, we would like to elevate our recommendations regarding the importance of conserving our Nation's grasslands through the appropriation and implementation of the Inflation Reduction Act (IRA) funding. We respectfully submit the following recommendations in response to the request for comments issued on November 21 2022.

The Central Grasslands Roadmap is a **collaborative effort** to increase conservation of North America's Central Grasslands, which span more than 700 million acres across Canada, the United States, and Mexico including more than 20 million acres of Indigenous lands. By bringing together people from these three countries, multiple Indigenous Nations, and seven diverse sectors (Federal agencies, provincial and state-level agencies, private sector and industry, ranchers and producers, academia, NGOs, and funders), the Roadmap has **identified collaborative priorities** with a clear destination for the next 10 years and a commitment to these goals while measuring our collaborative progress to ensure resilient grasslands for the future.

The Roadmap supports and believes that through the IRA funding, NRCS research can further show the potential for grasslands to mitigate carbon emissions. Additionally, increased funding to pre-existing practices pertinent to grassland improvement including Upland Wildlife Habitat Management (E645C), Grassed Waterways (E412A), Brush Management (CP 314), Prescribed Burning (CP 338), Range Planting (CP 550), and Grazing Land Mechanical Treatment (CP 548) have proven useful tools for grassland restorations. However, the administration and USDA must elevate and further recognize and value the importance of our grasslands. Currently, our systems do not support a grass-based economy. Through our history of many practices, we have inflated the value of cropland over native grassland and incentivized land conversion. This discrepancy has resulted in more than 400 million acres of our Central Grassland landscape being converted to row-crop agriculture or invaded by trees and shrubs. Millions of these acres are on land that is not sustainable for farming. In addition, our aquifers and water systems are over-allocated, thus millions of acres are fallow and blowing soil, as they cannot sustain a crop. Our rural communities are running out of water. A paradigm shift is needed across North America to change the plight of our grasslands. The IRA funding can be the catalyst for the change that is needed for a climate-smart future through grassland protection, conservation and restoration.

However, the number of practices eligible for IRA funding for cropland fields outnumbers grassland practices approximately 30 to 1. This sends a clear message about our continued de-valuation of native grassland systems. Further incentivizing cropland practices with IRA funding will ultimately result in more conversion of native prairie to cropland. Economics drive this private dominated landscape and the current policy and incentive system is designed to benefit cropland. The cost per acre of cropland versus native grassland is more than double. We strongly recommend that the USDA reduce this disparity and focus funding on practices with proven carbon benefits, while avoiding funding any practices or programs that support conversion of cropland to grassland. Further, the Climate Smart Agricultural and Forestry Mitigation Activities List, which informs eligible activities under IRA, should be expanded to include all

grassland practices listed on pages 3 and 4 of this letter because of benefits to carbon storage, sequestration, and grassland resilience.

In addition to carbon sequestration benefits, the Central Grasslands are core to our natural and cultural heritage. Eighty percent is privately owned and two-thirds of this region is considered in a cultivated or degraded state. One in four of our North America's **three billion birds lost over the last 50 years are grassland birds** and native pollinators are experiencing similar population trajectories. Chief among the reasons for this loss is land conversion, which also produces up to 20% of the world's greenhouse gas (GHG) emissions by releasing carbon into the atmosphere. Land conversion also diminishes suitable habitat available for birds and other wildlife; for example, two-thirds of bird species will be threatened by decreased rangeland as a result of climate change. Iconic species including plains Sharp-tailed Grouse, Greater Prairie Chicken, Western Meadowlarks, and now the federal listed Lesser Prairie-Chicken are all extremely vulnerable to this combination of habitat loss due to land conversion, degradation and climate change.

In short, our grasslands are in complete crisis. Only the remaining intact one-third of this region still hosts grassland habitats that support a myriad of endangered, imperiled, and culturally significant wildlife and plant species. Half of this remaining 1/3 is under threat of conversion or invasion by trees and shrubs. This region also provides critical outdoor recreation activities, including camping, hiking, hunting, fishing, birding, and wildlife-watching, generating billions in revenue for the region. It is also part of our agricultural backbone supporting 64+ million cattle and bison. This intact and ecologically diverse region also stores vast amounts of carbon beneath untilled grasslands that are *already contributing to climate change mitigation; they are our rainforest underground and are threatened daily by the plow.*

It is clear that we need to bolster our fight against the effects of climate change through conserving and restoring our disappearing grasslands and rangelands. Through r**estoring our disappearing grasslands, we will increase soil health, which captures greenhouse gases.** Studies have shown that the grasslands deep root systems play a significant role in sequestering atmospheric carbon and are more resistant to drought and wildfire than forests. Grasslands are responsible for storing one-third of the total terrestrial soil organic carbon on the planet, the nitrogen and carbon captured increases soil health thus benefiting native plant life. By maintaining existing grassland and supporting ranchers in conservation-focused agriculture, we can easily capture atmospheric carbon and protect threatened grassland bird species. In order to do so, it is imperative that all partners are involved in creating the solutions, including private and Indigenous Nations who manage the vast majority of these lands. These areas and the people who manage them, stand to benefit from the overlap of sound conservation science and the mitigation of climate change from the appropriation and implementation of the IRA funds ***only if*** the approach to implementation encompasses strategies are diverse as well as have a clear connection to the existing Natural Resources Conservation Service (NRCS) program (i.e. EQIP, RCPP, ACEP and CSP) *priorities*.

In addition, the urgency of climate change impacts dictates that funds should not just be allocated based on carbon sequestration metrics and a few limited practices, but on a deep understanding of holistic ecosystem function(s) and appropriate actions if we are to meet our climate goals. The grassland and rangelands of the West, much of which is grazing lands, hold 12% of all terrestrial carbon on our planet, most of it stored deep beneath the soil (Sanderson et al. 2020). Yet, we lose more than 2 million acres of grasslands per year to make way for row-crops. Between 2008 and 2012, the amount of carbon released from plowing up grasslands to cultivate crops was 38 million metric tons each year (Spawn et al. 2019) and projections indicate that an additional 9.3% of grasslands will be plowed up by 2050, releasing the equivalent carbon emissions as 124 million vehicles (Pendall et al. 2018). Practices that focus only on the amount of carbon sequestered run the risk of encouraging invasive grass, tree and/or shrub expansion,

which would likely destroy the remaining grasslands and all that depend on it. One only needs to look to research to understand that ecosystem management that maintains high levels of *native plant diversity* can enhance soil organic carbon storage.

As stated and recommended previously, the USDA has existing programs and identified priorities at hand to help guide the implementation of funds. The grasslands and shrublands have already been identified by the USDA as playing a key role in the agencies climate mitigation and adaptation strategies (USDA 2021, NRCS 2022). Additionally, the NRCS Working Lands for Wildlife (WLFW) Frameworks for Conservation Action in the Sagebrush and Great Plains Biomes serves as an excellent resource to help drive appropriate implementation actions including but not limited to:

1. ***Protection and restoration of hydric soils***: The protection and maintenance of grasslands and shrublands supporting hydric soils is paramount as degraded floodplains and meadows reduce storage capabilities of carbon-rich wetlands and exacerbate the impacts of climate change such as fire and drought. (Conservation easements under the ACEP-ALE and WRE Programs and Conservation Practice 643 - Restoration of Rare or Declining Natural Communities; CP 644 Wetland Wildlife Habitat Management; CP 395 Stream Habitat Improvement and Management)
2. ***Preventing land use conversion:*** Carbon accumulates in grassland and shrubland soils slowly over decades and century-long time horizons if they remain intact. Conversely, 50-70% of soil carbon oxidizes into the atmosphere as carbon dioxide (CO_2) when these lands get cultivated. Conservation easements are a critical tool to prevent the loss of soil carbon by negating cultivation and subdivision of grazing lands. Highly erodible lands currently enrolled in the Conservation Reserve Program (CRP) should also be retained in grass to prevent conversion back to cropland. In addition, support for sustainable grazing management builds a culture of grass conservation, leading to more voluntary grassland retention. (Conservation easements under the ACEP-ALE and WRE Programs; CRP; Conservation Practice 528 – Grazing Management).
3. ***Halting conversion of grasslands to woodlands:*** The expansion of woody plants has resulted in an extent of grassland and shrubland loss, 2 million acres per year that is equivalent to that of cultivation. Carbon storage is moved aboveground when trees replace deep-rooted perennial grasses, making it more vulnerable to loss during wildfire. Additionally, encroachment of invasive woody plant species degrades habitat quality for grassland obligate species, including the Lesser Prairie-chicken, pronghorn, and many grassland birds. Maintenance of existing and restored grasslands utilizing practices such as prescribed burning is critical to conservation and sustained health of grasslands. Expanding woodlands can capture some additional carbon but not in a climate-smart fashion (Smith et al. 2021). (Conservation Practice 314 -Brush Management; CP 338 Prescribed Burning; CP 645 Upland Wildlife Habitat Management).
4. ***Preventing conversion of native grassland and shrublands to invasive annual grasses:*** Shrublands with cheatgrass infestations are twice as likely to burn in a wildfire. Invasive annual grasses have become a primary driver of mega-fires on Great Basin shrublands (Smith et al. 2022a, Maestas et al. 2022). In addition, half of belowground carbon stores also are lost when shallow-rooted annual invasive grasses replace deep-rooted perennial plants (Nagy et al. 2021). (Conservation Practice 315 -Herbaceous Weed Treatment).
5. ***Restoring fallow fields to native perennial grass cover***. Millions of acres of land are on soils not suitable for crop production. Aquifers are being depleted; center pivots are being shut off. Strategies and native seed sources are needed to restore fallowed/abandoned fields and proactive efforts to use existing water wisely to transition irrigated land that is being dewatered to native

grassland. Opportunities to expand acres planted to native grass under the CRP, including the State Acres for Wildlife Enhancement Initiative (SAFE) should be a top priority to maximize benefits to grassland birds. (CP 327 Conservation Cover; CP 643 Restoration of Rare or Declining Natural Communities; CP 342 Critical Area Planting; E55OA Range Planting for increasing/maintaining organic matter; E550B Range Planting).

6. ***Enhancing grassland condition through grazing management***. Millions of acres of private and public grasslands are in a degraded state due to drought, overgrazing and invasive species. We need innovative practices including altering timing, intensity and duration of grazing, grazing deferment, expanded virtual fencing options to manage herds more adaptively and minimize wildlife collisions and fragmentation. This will in turn improve grassland health condition, plant resiliency, declining wildlife populations, root resilience and carbon sequestration potential. In addition, creating incentives for producers to defer lands to improve ecosystem health should be considered separate from practices that require deferment. (Conservation Practice 528 – Prescribed Grazing, and supporting practices such as Conservation Practice 516 – Livestock Pipeline and Conservation Practice 382 – Fence; CP 314 Brush Management; CP 338 Prescribed Burning; CP 548 Grazing Land Mechanical Treatment).

We are at a tipping point for our grasslands. Funding provided to the NRCS and associated conservation programs through the IRA bill provides a monumental opportunity to protect birds, provide resources for ranchers, improve soil health, conserve water resources, conserve and restore our native grasslands as well as combat climate change. However, these climate mitigation outcomes will only be realized if the funds are allocated and administered in a holistic manor, using existing programs/priorities and innovative practices that support the conservation and restoration of our native grasslands. In addition, funds would also bolster drought-stricken communities, provide needed technical assistance, promote innovative regenerative agriculture practices, and restore watershed connectivity.

On behalf of the Central Grasslands Roadmap collaboration, we hope our recommendations are realized and look forward to working with the NRCS to ensure healthy grasslands and therefore a healthy climate future.

Sincerely,

The Central Grassland Roadmap Policy Working Group

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