

## **USFWS Comments and recommendations for PRRIP 2022 Grassland Vegetation Monitoring Assessment, April 2023**

PRRIP has a large expansive network of owned or managed grasslands. The large geographic area and large number of acres presents challenges for management. Workload, budget, tenant (grazing and haying) considerations, climate, and regulatory or policy considerations also present unique challenges. To date, management on PRRIP grassland has prioritized low vegetation structure for whooping cranes at the direction of PRRIP stakeholders, often utilizing season long grazing or haying mid-summer at the peak of native warm season vegetation growth and production. This strategy is also preferred by grazing and tenants as it maximizes forage and nutrient quality and uptake for livestock.

Disturbance such as grazing and fire can positively impact grassland communities when applied at the appropriate time and manner. A shift toward early or late season grazing, more rotational grazing with rest, and less season-long or intermittent grazing (during peak warm season production) may produce higher quality/diversity grasslands. USFWS recommends PRRIP review existing management and the current grassland communities at each site to determine whether a shift in management aimed at reducing undesirable cool season or exotic species is needed. A management shift may aid in promoting diverse, native warm season grasses and forbs. This may in some instances equate to a shift in the currently agreed upon overall management strategy of prioritizing short vegetation structure above all else.

Species composition at numerous sites are now mostly dominated by cool season exotic species such as smooth brome. USFWS recommends evaluating, ranking, and determining where management intervention is needed at locations where the species composition is undesirable and is no longer containing healthy high-diversity native dominated grassland communities. Management options were provided in the grassland monitoring report and could be explored to improve these communities. Through LAC and TAC evaluation at the site-specific level, each site could be evaluated to determine its value as buffer or wet meadow habitat, its hydrologic regime, and the overall goals to assist in management planning.

The report also highlighted some sites that indicate management has maintained or improved the composition of high diversity native grassland communities with increases in native species and warm season grasses noted. One prescriptive management strategy may not work for every tract. Flexibility may be needed with variable hydrologic regimes and annual variation in drought and climatic conditions.

PRRIP properties with season long grazing or consistent haying during the late summer peak growing period may be stressed (particularly during drought or where depth to groundwater are greater) and have undesirable vegetation communities. More frequent spring burns, shorter and spring/fall grazing, rest, reduced stocking rates, varying haying timeframes, etc. were pointed out as possible solutions and could be explored. Grazing at some sites were noted to have reduced vegetative cover to less than ½ inch. In general, USFWS recommends a

shift away from season long grazing and incorporation of variable disturbance applied at different times based on annual conditions.

Musk thistle was prevalent at some sites. Spraying was pointed out as being conducted at the wrong time for successful long-term eradication (after full bloom/seed out, when the plants will not die and infestations from seed can spread). We recommend properly timed chemical application and removal of seed heads prior to full bloom or alternatively conducting chemical application in late fall to the rosette stage of musk thistle, as recommended in the report. Leafy spurge infestations at some sites have been present for multiple surveys and may be increasing, needing management intervention.

Many of the PRRIP grasslands were purchased from or had management/restoration contributions from NGO's (or in some cases USFWS). Those entities previously contributed resources to restore and/or manage these grasslands to promote high-diversity grassland ecosystems. They were acquired in various successional states and levels of diversity and floristic quality. Many properties may have had some degree of problematic vegetation communities since acquisition. Others PRRIP invested significant resources through re-seeding, restoration, and management at numerous sites. In general, the health and quality of PRRIP grasslands has declined over the years by many ecological qualitative metrics. USFWS considers diverse, native, riparian grasslands as an important component of a healthy Platte River ecosystem that the T&E species, as well as many other species of conservation concern depend upon. Grasslands that have declined in quality over time are cause for concern. The intent of the grassland monitoring was to provide a check in point every few years to detect if management is resulting in significant vegetation community shifts away from native higher diversity grasslands toward exotic, low-diversity grasslands containing undesirable or invasive species. From a landscape perspective, a reasonable goal for the portfolio of PRRIP grassland tracts of land should be maintaining diversity and quality at similar or better levels than they were acquired in (if restored, evaluate success or seeding). Land stewardship and the good neighbor policy are an important guiding principal that provide justification to reduce or eliminate noxious or weeds and invasives, and promote native grassland communities.