Draft - Wet Meadow/Grassland Definition Resolution and Importance of Inclusion in Existing and Future PRRIP Land Complexes

**Purpose:** Provide the GC with sufficient information to continue to evaluate other potential management options than the currently used grazing regime identified in the Restoration and Management Framework.

**Objective:** Identify concerns/issues with wet meadow definition, grassland importance and buffers within PRRIP habitat complexes to inform a policy decision on a transition from a focus on research/science to a management program based on characteristics of individual wet meadow/grassland parcels which can be carried over into subsequent increments or extensions.

**Narrative**:

The PRRIP was to acquire within the first increment 9200 acres of land that approximates the definitions of a habitat complex as defined in Table 1 of the Land Plan. One component of that complex definition is wet meadows that are native grasslands with some area having a saturated root zone 5-12.5% of the time (i.e., wetland). With no specifically defined percentage of the area that needs to be wetland there is substantial variation in what may constitute a wet meadow. The wet meadow hydrology studies undertaken by the PRRIP clearly document this variation. In addition to the hydrology studies restoration projects on various parcels have created additional wetland swales within in surrounding upland grasslands with variable but limited response by whooping cranes. A recent analysis on crane habitat selection done in different manners points to the fact that whooping cranes select for wetlands but have limited use of upland grasslands, this same pattern is seen throughout the flyway. Regardless of WHCR use and selection of wetlands in the AHR, the TAC recognizes the value of wet meadows as important feeding/loafing areas for WHCR’s as well as important habitat for other species of concern and should be managed to their highest potential. We recognize every site should be considered individually for development of specific management regimes including the continued grazing regime and modified grazing regimes for the benefit of flora and fauna.

**Background:**

All lands purchased by the PRRIP were vetted through the Land Evaluation Process by a subset of the Land Committee, ultimately approved by consensus of the Land Committee and then consensus of the Governance Committee. The Land Plan recognizes that there were differences in opinion of how important the exact habitat complex definition was to meet the needs of the species and specifically states flexibility is needed when considering lands for purchase and that adaptive management may modify management actions. Since all acres purchased by the PRRIP count towards the Goals and Objectives of the PRRIP, there is a desire to manage some of these grasslands in a manner that may not be considered the best whooping crane habitat but that will have higher ecological value. The TAC does not support selling or in any way redefining lands that have been purchased. In general, there is agreement that all PRRIP complex lands are currently providing value as important roost habitat (riverine) or at a minimum, buffer habitat (off-channel habitat adjacent to riverine habitat), with some of the off-channel habitat directly providing higher quality whooping crane habitat than others. We also recognize the GC retains discretion to sell some of these areas, should they decide to purchase more desirable lands. We also recognize future complex habitat lands may be acquired with both riverine and non-riverine habitat.

Wet meadows may be an important part of the Programs land acquisition as a component of each complex land purchase as documented in the Land Plan of the Program Document. However, the term wet meadow as used along the central Platte River is not consistent with how it is commonly used as a reference to large expanses of grassland with standing water at some time during the growing season. Along the central Platte River, wet meadows are generally described as grasslands with linear sloughs or swales which have standing water at times with interspersed high ridges which are more xeric. In Table 1 of the Land Plan there is no specific amount of area that should be considered a wetland in the definition of a wet meadow.

Associated Habitat Reach()Recent hydrology studies and the advent of new remote sensing, such as Lidar, has allowed the Program to document the variation in the amount of wetlands imbedded with in what is known as a wet meadow (cite wet meadow hydrology study). The variation of wetlands within what is considered wet meadow is substantial ranging from near zero to nearly 100%. Additionally, there is a substantial variationt in depth to groundwater ranging from near the surface on the East portion of the AHR to greater than 10 feet throughout the Western portion of the AHR. These factors along with other research conducted along the central Platte River suggest river flows required to increase ponding in substantial portions of wet meadows, occur infrequently. Instead, EA releases prioritize creating desired conditions in the river.

Various publications of whooping crane habitat selection along the central Platte River and throughout their migratory range have come to different conclusions on the importance of wet meadows to whooping cranes. Regardless of the selection studies, there are significantly fewer documented incidents of whooping cranes in wet meadows compared to riverine and agricultural habitats with in the AHR, but wet meadows are utilized more than other habitat types (forested, developed, etc.). It is widely accepted that agricultural land (primarily corn) is an important source of carbohydrates within whooping cranes diets and that corn is not a limiting landscape type in the AHR.

There have been numerous attempts by various groups at increasing the amount of wetland within wet meadows. These management actions do create wetlands but do not alter hydrology at the entire site and have not elicited a response by whooping cranes. The recent Program hydrology study evaluated the difficulty in altering hydrology. If all studies of whooping cranes, wetland management, hydrology and river flow are looked at in context of the whooping crane and wet meadow hypothesis within the Program document, it is difficult to discern any clear trend due to the great environmental variation seen in the common term of wet meadow. Due to their value as buffer habitat, variation in hydrology, potential and varying levels of documented use by cranes, value to other species, and potential listing of other species of concern such as Regal Fritillaries, Monarch butterflies, and several species of bumble bees, the TAC believes each wet meadow parcel should be evaluated for specific management actions based upon the site characteristics and the ecological values that they will serve.

We propose no change to current Program documents. In future Program documents instead of using the term wet meadows, these areas be referred to as wet meadow/grasslands and each parcel management plan should reflect the mix of wetland within those grasslands. These remanent grasslands and wetlands are an integral part of the ecology of the AHR and should remain protected as part of the suite of PRRIP lands. By using commonly accepted definitions of grasslands and wetland we can recognize the variation seen in the natural hydrology of the sites and develop individual management options to optimize the value of each parcel.

Further, we recommend these changes not impact previous, current, or future land holding of PRRIP grasslands based upon these accepted changes in terminology, consistent with the PRRIP’s overall land plan within the Program Document and the Extension Document. Successful land acquisition and disposition have and should continue to be accomplished by evaluating each properties’ merits within the suite of the agreed upon PRRIP land goals (First Increment, Extension, or beyond), on a tract-by-tract basis, within the overall negotiated PRRIP land plan goals.

Based upon the issues identified herein, a grassland working group has developed the attached management guidelines. It is recognized by the working group that implementing these recommendations will likely require more work on the part of the TAC, LAC and WAC as well as direction to the EDO and Farm manager to define a desirable grazing regime and find tenants. It is also understood by this working group that the proposed changes may? reduce income on most properties, which has never been a targeted purpose, rather an ancillary benefit when compatible with PRRIP’s goals.

**ATTACHMENT A- GENERAL LAND MANAGEMENT FRAMEWORK FOR PRRIP WET MEADOW/GRASSLANDS**

The Program’s current approach to grassland management is to provide short statured grasslands for cranes on 25% of the area and 75% in heterogeneous structure for grassland breeding birds and other species achieved through a May-October grazing regime, with a 1 out of 4 year burn schedule. Given the current knowledge of whooping crane use and the potential for numerous pollinator species to become listed under the Endangered Species Act, the Grassland Working Group believes that current approach to season long grazing needs to be examined and would like to see grazing actions implemented that we believe will achieve the goals listed below:

1) Increase the relative abundance of warm season grass species verses cool season grass species.

Management Action: -Shift away from annual May-October grazing toward early and late season grazing rotations which should gradually promote and increase the proportion of warm season species while reducing cool season species.

2) An increasing trend in diversity as measured by FQI-

Management Action: Annual management changes from the previous year, and elimination of multiple consecutive years with the same management should allow FQI to be maintained or increased.

3) Reduction of Invasive/Exotic vs. Native

Management Action: The combination of continued targeted application of herbicide on invasive species along with the formerly mentioned management strategies should discourage exotic species in place of natives, though this problem will never go away completely.

4) Increase availability of flowering plants.

Management Action: Rest each grazing unit at least one year out of 4 or have 20-25% of any parcel in rest at one time.

**General Guidelines:**

* When developing grazing plans, all pastures on a property should be considered and a multi-year plan developed. This will allow for renters to plan ahead.
* Management application, timing, and intensity shall not be repeated in two consecutive years (e.g. no heavy graze two years in a row).
* Intermediate season long (May-September) grazing in any one unit should not occur more than once every 4/5-year management cycle. Rotational grazing may be applied where rotational grazing infrastructure allows moving cattle to multiple units throughout the growing season. Rotational grazing should rotate the grazing timeframe in any one unit every year such that no unit is grazed at the same time in consecutive years. Where larger management units exist with perimeter fence, incorporation of single strand electric fence allowing multiple grazing units with rotation may be applied.
* Haying should not occur on consecutive years. Hay meadows without grazing infrastructure could be broken into ½ or 1/3 haying on a rotational annual basis and intermixed with fire. Haying twice in any calendar year should not occur and haying should occur prior to June 15.
* Rest should not occur more than 2 years consecutively. Flexibility should be applied to modify management on a given year if Rx could not be completed.
* Stocking rates can and should be varied based upon desired condition.
* Areas that are dominated by undesirable species will be evaluated for different management goals. There has been multiple decades worth of different approaches to achieving the goals stated above with limited success in those areas. It is understood that not all grasslands will shift toward highly diverse native grassland communities.