The Programs 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:

Management Goals:

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 unit ~25% of years.

EXAMPLE 4 or 5 year management rotation for grazing, fire, rest on property with 4 parcels:

Early season graze parcel 1, move cattle to parcel two for late season graze (Y1), parcel 3 spring or fall burn, parcel 4 rest. Rotate management application such that all 4 parcels receive all 4 treatments in 4 years.

General Guidelines:

When developing grazing plans, preference is toward a multi-year plan

Management application (whether grazing, haying, rest) timing, and intensity should not be repeated in two consecutive years.

Season long (May-October) grazing should be avoided until such time a re-evaluation of vegetation communities demonstrates improvements. Rotational grazing may be applied where infrastructure allows moving cattle to multiple units throughout the growing season. Rotational grazing should attempt

Commented [DZ1]: I think the General Guidelines need to be clearly articulated such that they can be applied on more of a reach wide scale. This approach also needs to incorporate some flexibility to adapt if management plans/timelines gets altered (i.e. if a spring burn isn't completed on a specific property). Implementing these general guidelines will inevitably look slightly different at different locations.

to rotate the grazing timeframe in any one unit every year such that no unit is grazed at the same time in consecutive years.

Hay meadows without grazing infrastructure could be broken into $\frac{1}{2}$ or $\frac{1}{3}$ haying on a rotational annual basis and intermixed with fire. Haying twice in any calendar year should not occur and priority is for late spring.

Stocking rates can and should be varied based upon desired condition. For example, heavy stocking rates in April and May will have greater impacts on cool season grasses. Lighter August-September stocking rates may be used to leave sufficient fuel for a burn the next spring.

Areas that are dominated by Tall or intermediate wheatgrass, smooth brome or reed canarygrass may need to be evaluated for cool season herbicide or other additional management applications or goals.

There may be pastures of special use that that will need special consideration. (e.g. calving pasture at cottonwood ranch)

Grassland working group will review the multi-year grazing plans or help draft them (Could split up complexes among GWG members)?

Commented [RM2]: My preference is to let Tim develop them (or at least the annual plans), GWG meet one time to review the multi-year plan and once annually to review the annual plan (walk through each tract and edit during a call-this is what Josh and I did last year and it took less than 2 hours- will be easier once we agree on multi-year plans). If we open the door to drafting, EDO prefers to have us do it all and that is too much of a lift annually in my opinion. We need to avoid biting off too much for the GWG to do. Maybe Zorn, Rabbe, Jenniges, Wiese try and help draft the multi-year plans? That could take us down a rabbit hole though.