~~N2.93.15~~
N2.93.17

BUFFALO HILLS CALCULATIONS

Computation of overall utilization was calculated by pasture using the weighted average method.

Based on the utilization figure the stocking levels were computed using the following formula:

$$\frac{\text{Actual Use}}{\text{Average/Weighted Average Utilization}} = \frac{\text{Potential Actual Use}}{\text{Desired Average Utilization}}$$

I. Dolly Varden Pasture

A. 11/1/89 Post-livestock

1. weighted average utilization

$$\frac{(1{,}257 \text{ acres} \times .5) + (4{,}057 \text{ acres} \times .7)}{5184} = .7$$

2. potential stocking level

a) actual use

1) livestock = **1592 AUMs**

2) W. Horses

$$\frac{(469 \text{ W. Horses})(246 \text{ days})}{30.41666} = 3793$$

b) potential stocking level

$$\frac{1592 \text{ livestock Aums} + 3793 \text{ W. Horse AUMs}}{.7} = \frac{X}{.6}$$

$.7X = 3231$

X = **4616 AUMs**

B. 10/16/90 Post-livestock

1. weighted average utilization

$$\frac{(3919 \text{ acres} \times .5) + (6841 \times .7)}{7587} = .6$$

2. potential stocking level

a) actual use

1) livestock = **1592 AUMs**

~~N2 93 15~~
N2 93 17

2) W. Horses

$$\frac{(521 \text{ W. Horse})(230\text{days})}{30.41666} = \textbf{3940 AUMs}$$

b) potential stocking level

$$\frac{1592 \text{ livestock AUMs} + 3940 \text{ W. Horse AUMs}}{.6} = \frac{X}{.6}$$

$.6X = 3319$
$X =$ **5532 AUMs**

# of AUMs = average of 1989 and 1990 = 4616 + 5532/2 = **5074 AUMs**
AUM ratios established in the 1988 Allotment Evaluation : Livestock AUMs - 57% and Wild Horse AUMs - 43%.
Livestock = **2892 AUMs**
Wild Horse = **2182 AUMs**

II. Calico Pasture

A. 7/19/89 Post-livestock

1. weighted average utilization

$$\frac{(3{,}468 \text{ acres} \times .5) + (17{,}216 \text{ acres} \times .7)}{20{,}684} = .7$$

a) actual use

1) livestock = **2554**

2) W. Horses

$$\frac{(375 \text{ W. Horses})(141 \text{ days})}{30.41666} = \textbf{1738 AUMs}$$

b) potential stocking level

$$\frac{2554 \text{ livestock AUMs} + 1738 \text{ W. Horse AUMs}}{.7} = \frac{X}{.6}$$

$.7X = 2575.2$
$X =$ **3679 AUMs**

B. 7/16/90 Post-livestock

1. weighted average utilization

$$\frac{(18{,}334 \text{ acres} \times .5) + (4{,}100 \text{ acres} \times .7)}{22{,}434} = .5$$

2. potential stocking level

a) actual use

1) livestock = **2554 AUMs**

2) W. Horses

$$\frac{(416 \text{ W. Horses})(138 \text{ days})}{30.41666} = \textbf{1887 AUMs}$$

b) potential stocking level

$$\frac{2554 \text{ livestock AUMs} + 1887 \text{ W. Horse AUMs}}{.5} = \frac{X}{.6}$$

$.5X = 2664.6$
$X =$ **5329 AUMs**

\# of AUMs = average of 1989 and 1990 = 3679 + 5329/2 = **4504 AUMs**
AUM ratios established in the 1988 Allotment Evaluation : Livestock AUMs - 59% and Wild Horse AUMs - 41%.
Livestock = **2657 AUMs**
Wild Horse = **1847 AUMs**

III. Granite Pasture

A. 10/4/88 post-livestock

1. weighted average utilization

$$\frac{(0 \text{ acres} \times .5) + (348 \text{ acres} \times .7)}{348} = .7$$

2. potential stocking level

a) actual use

1) livestock = **1592 AUMs**

2) $\frac{(188 \text{ W. Horses})(218 \text{ days})}{30.41666} =$ **1347 AUMs**

b) potential stocking level

$$\frac{1592 \text{ livestock AUMs} + 1347 \text{ W. Horse AUMs}}{.7} = \frac{X}{.6}$$

$.7X = 1763.4$
$X =$ **2519 AUMs**

\# of AUMs = 1988 = **2519 AUMs**

AUM ratios established in the 1988 Allotment Evaluation : Livestock AUMs - 64% and Wild Horse AUMs - 36%.

Livestock = **1612 AUMs**
Wild Horse = **907 AUMs**

IV. Buffalo Hills

A. 8/1/88 post-livestock

1. weighted average utilization

$$\frac{(7{,}840 \text{ acres} \times .5) + (345 \text{ acres} \times .7)}{8{,}185} = .5$$

2. potential stocking level

a) actual use

1) livestock = **2554 AUMs**

2) W. Horses

$$\frac{(602 \text{ W. Horses})(137 \text{ days})}{30.41666} = \textbf{3048 AUMs}$$

b) potential stocking level

$$\frac{2554 \text{ livestock AUMs} + 3048 \text{ W. Horse AUMs}}{.5} = \frac{X}{.6}$$

$.5X = 3361.2$
$X =$ **6722 AUMs**

\# of AUMs = 1988 = **6722 AUMs**

AUM ratios established in the 1988 Allotment Evaluation : Livestock AUMs - 44% and Wild Horse AUMs - 56%.

Livestock = **2958 AUMs**
Wild Horse = **3764 AUMs**

N2. 93 17

1. Why did we chop 2 weeks off Calico pasture, and then should we have done it at 4/1 instead of 7/15? I know the figures showed not enough AUM's (2548) for the old calc's, why didn't we authorize to that level?

The aum calculations (prior to finding the err) for Calico pasture did not provide enough aum's to continue the existing grazing authorization, however the Dolly Varden pasture contained excess livestock aum's. Since the grazing strategy is to graze Calico first and then move to Dolly Varden we shortened the length of time in Calico to the calculated grazing capacity and made up the difference in the Dolly Varden pasture. Water availability in the southern area (salt desert shrub) of the pasture is very limited, so if we made the adjustment at the beginning of the grazing period it may not have been possible to use this area, and utilization levels would remain similar to those found in the past in the higher elevations of the pasture.

Historically it has appeared that the Calico pasture has been the weak link in the grazing strategy for the Buffalo Hills Allotment. Most of the use in the Calico pasture has been from the south end of Donnelly flat north to the Leadville Allotment boundary and east to the Soldier Meadows Allotment boundary fence. I felt that to improve ecological conditions on the top of the mountain around the head waters of Donnelly Creek and Donnelly Peak it would be desireable to move livestock a little earlier if possible into the Dolly Varden pasture as long as we would not be creating a resource problem in that pasture.

2. Since we didn't obligate all AUM's in Calico, why did we add INCREASE approximately 400 AUM's to Dolly Varden and say we are doing pasture stocking level to old preference level?

When looking at the calculated available AUM's for the Calico pasture we found that to obligate all of these AUM's would result in an odd ball off date. I decided that I would rather set the off date at 7/15 or 8/1 depending on how the aum's worked out. By moving back to 7/15 there were some livestock aums in the Calico pasture that were not obligated. Based on the calculated available aum's for the allotment on a pasture basis the Granite pasture contained the lowest number of AUM's (1612) and required 1596 to maintain the current livestock grazing strategy. Given that there are only 16 excess livestock aum's in the Granite Pasture the allotment was stocked using the Granite Pasture as the limiting factor for the livestock operation. I felt that since we had not met resource objectives due to a combination of wild horse population levels and poor livestock distribution that for the present, the best management for the area would be to reduce wild horses down as close as possible to AML's and maintain the existing livestock grazing strategy. From this point we would collect the appropriate monitoring data and make course corrections as necessary to livestock and wild horses, to meet resource objectives for the allotment.

T Seley

4/1/93