

**2013 END OF SEASON REPORT
ARCO PASS C&H ALLOTMENT**

TERM GRAZING PERMIT				AUTHORIZED USE				ACTUAL USE			
NO.	ON DATE	OFF DATE	H.M.	NO.	ON DATE	OFF DATE	H.M.	NO.	ON DATE	OFF DATE	H.M.
469	6/16	9/30	1650	431	6/16	9/30	1650	58	6/17	9/30	204
								160	6/15	9/30	861
								98	6/18	9/28	315
469			1650	431			1516	316			1380

Actual use was 84% of full permitted head months and 67% of full permitted cattle numbers.

UNIT DATES AND UTILIZATION RESULTS:

ACTUAL GRAZING SCHEDULE			ALLOWABLE INDICATORS	ACTUAL RESULTS
UNIT NAME	ON DATE	OFF DATE	RIPARIAN Browse/Stubble	RIPARIAN
Brier/Hurst/Wood	6/16	7/29	50% (4 inch)	Brier 3" Mid-Season on 7/25/13 Hurst 3" (75% Willow Browse) Wood 21% upland use on bluebunch
Horsethief	7/30	8/16	50% (4 inch)	5"/ Browse NA
Seeding	8/17	9/28	50% (4 inch)	Seeding 20% upland use on bluebunch

Allotment Inspections: Visits were made on the following dates 7/11, 7/25, 7/31, 8/13, 8/26, 9/18, 9/19, 10/23. Allotment inspections included project maintenance checks, cattle location checks, and utilization monitoring.

Information: The precipitation for the District was below normal for 2013. The precipitation information for the Hilts Creek Snotel site is included in the table below. While this information is collected at a site higher up in the Lost River Range and is not specific to your allotment areas, it does give a good idea of the available moisture on the Allotment. The precipitation for the Hilts Creek Snotel site on the allotment was below average for the precipitation year of October 2012 through September 2013. The growing season precipitation for the months of April through September was

also below average at 85% of the 32 year average for the site. This is the third year in a row where the growing season precipitation was at or below 85% of the 32 year average. The precipitation information for the Hilts Creek Snotel site is included in the table below. The totals for 2013 are compared to the average total precipitation by month for the Hilts Creek Snotel site from 1982-2013.

Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Year Total	Grow Season Total
2013 Precip. (inches)	1.5	2.6	4.9	1.3	0.5	0.8	0.8	1.9	0.6	1.6	1.6	2.3	20.40	8.8
Aver. Precip. 1982-2013	1.8	2.1	2.4	2.1	1.9	2.7	2.0	2.1	2.1	1.3	1.5	1.4	23.54	10.4

The temperature for the growing season as measured at the Hilts Creek Snotel site shows a much warmer growing season than average at 1.8 degrees F warmer than the 25 year average as indicated in the table below. The 6 month growing season temperature is the 4th warmest out of the 25 year record for the Hilts Creek Snotel site. The warm temperature and limited moisture during the growing season greatly limited vegetation growth on the District early in the season. The late season precipitation and warm temperatures allowed for some regrowth of grass and grass like species into September.

Month	Apr	May	Jun	Jul	Aug	Sept	Apr-Sept Avg
2013 Temperature (°F)	33.8	42.8	51.8	62.6	62.6	50.0	50.6
Average Temp. 1982-2013	33.2	41.4	49.6	59.9	58.8	50.2	48.8

Utilization: Riparian sedge utilization was moderate to heavy across the entire allotment. Upland utilization across the allotment was on average light to moderate. End of the season woody species use was also moderate to heavy.

Annual use indicators for the allotment are four inch stubble height of hydric sedges and grasses along the greenline, 50% utilization on uplands, and 50% utilization on browse species. Stubble height has been shown to be related to two areas of concern: 1) the effect of grazing on the physiological health of the individual plant, and 2) the ability of vegetation to provide streambank protection and to filter out and trap sediment from overbank flows. For these reasons the stubble height on the allotment should be watched closely and should not exceed four inches.

Two of the three key areas that were monitored this year were at three inch stubble heights. The Brier key area was measured in July and not measured again at the end of the season. The Hurst key area was measured at a three inch stubble height at the end of the season which exceeds the allowable use of four inches. The stubble height of four inches needs to be maintained along the riparian areas within the allotment to ensure proper riparian function and limit erosion and trampling of the streambanks.

A browse standard of 50% is included in your permit and should be watched carefully. While this standard has not been focused on by range specialists in the past because minimal use of woody browse by livestock was observed, browse on willows, aspen, and riparian shrubs is an important consideration especially in dry years. In general, cattle began to shift to woody browse species as the four inch stubble height on grasses and sedges was met which could be used as an indicator for riders/ permittees to move cattle in the future. Using this tool to adjust movement dates could avoid overuse or missing end of season standards for herbaceous and woody species in these riparian areas during years of low precipitation.

Browse utilization was measured at the Hurst key area and exceeded the allowable use of 50% use. The Hurst key area had a 75% willow browse. Browse in excess of 50% limits the ability of the browse species to maintain and increase growth.

End of season indicators were exceeded in multiple locations for the second year in a row.

Compliance with Unit schedule and Project Maintenance: The allotment units were used in sequence in accordance with the annual operating instructions. David Andreason started his cattle out in the Hurst Unit while Telfords put their cattle in the Woody Canyon portion of the Horsethief Unit.

There were eight and roughly 30 pair of cattle documented in the Brier/Hurst Unit on 8/26 and 9/18 respectively, after their scheduled time in that unit while they were planned to be in the Seeding Unit. Care must be taken to ensure that cattle are not in the Brier/Hurst Unit outside of scheduled dates since there is no realistic means of keeping cattle from going between the Horsethief and Brier/Hurst units while cattle are in either of those units. The permittees and the Forest Service should evaluate a drift fence to improve livestock management within the Brier/Hurst and Horsethief Units.

The numbers of cattle were less than those run in 2012 but still greater than had been run on the allotment for at least the two grazing seasons prior to 2012. Cattle numbers should be evaluated very closely during dry years in order to achieve resource objectives.

Permittees were on the allotment on average 4 days per week. Permittees completed a fair amount of range improvement work this year. They were able to get the Wood Canyon spring running again and installed new pipe to the first trough delivering almost 1 gal/min of water. They placed temporary troughs around the permanent trough locations in the Wood Canyon Unit to better use the unit and allotment.

The headbox and pipeline in the Horsethief Unit was worked on and eventually provided good water to the trough later in the year. This trough should be maintained to provide a good water source. The permittees also installed a tire trough next to the metal trough in the Seeding Unit providing additional water storage capacity in that unit. Range improvement maintenance and reconstruction should continue on the allotment.

Recommendations:

1. Prevent drift from Horsethief Unit into the Brier/Hurst Units; this will require additional riding while in these Units. Identify a proposed fence location to improve management between the two units.

2. Keep Brier/Hurst Unit clean of livestock while scheduled to be in other units.
3. Discourage concentration of cattle on key areas in Brier, and riparian areas with salting and riding.
4. Consider conservative grazing periods and cattle numbers to compensate for drought and limited water, unless additional water can be hauled or by other means. Livestock numbers were much higher in 2012 and 2013 and the resources demonstrated the additional use as the allowable use criteria were exceeded in a couple of locations.
5. Ensure that end of season allowable uses are not exceeded on the allotment.
6. Be aware of the use on young, available willows on all units to ensure that browse use levels do not exceed 50%. Move livestock based on browse use, if necessary, and not stubble height by itself. Willow browse of 50% and stubble height of 4" are typically exceeded within similar timeframes.
7. Work with district personnel to ensure effective movement between units based on utilization levels so that overuse does not occur. Adjustments must be made throughout the season to ensure allowable use levels are not surpassed. If you think that appropriate utilization levels are being approached, move the cattle and/or call and a field visit will take place to ensure use levels are not exceeded. Be aware of the browse use on woody species such as willows and aspen on the allotment. If there are questions on assessing use values or any other issues Thad Berrett can help you in obtaining the answers you need.
8. Prepare for another hot and dry season. The precipitation for this winter is low and will prove insignificant to forage production if we do not get any moisture during the spring and active growing season. In preparing, thoughts of running fewer cattle, less time in each unit and lighter use will reduce the chances of long lasting impacts to the forage species on the allotment.