2014 End-of-Season monitoring results on the Antelope allotments

Allotment-Pasture-Key Area	Utilization		
	Allowable Use		Actual Use
	Floodplain	Dry Meadow	
Antelope, Silver Lake RD- North Willow	45%	55%	10% OE
Antelope, Silver Lake RD- Halfway	45%	55%	30% OE
Antelope, Silver Lake RD- Antelope Flat 3 (NE)	45%	55%	30% OE
Antelope, Silver Lake RD- Tobin Cabin- near Emery Well	40%	50%	20% OE
Antelope, Chemult RD- Johnson Meadow	30%	40%	25% UC
Antelope, Chemult RD- Wilshire Meadow	30%	40%	12% UC

OE = Ocular Estimate N/A= Not Applicable UC= utilization cage measured by weight

Antelope Allotment, Silver Lake Ranger District

North Willow - In addition to periodic in season compliance checks, this pasture was assessed for end of season utilization on September 30th. Ocular estimation of use was approximately 10% at the utilization cage in the southern portion of the North Willow meadow complex. This is within the allowable use level set in the permit. This complex is characterized by dry meadow sedge species and muhly species (short stature grass species) and is experiencing encroachment by sagebrush and forested species (lodgepole and ponderosa pine). An ephemeral channel exists above and below the meadow where utilization and trend are assessed.

Ocular estimation of use on other meadow complexes, Ross Spring and Baskin Spring, within this pasture indicated that utilization levels (moderate, ~30-40%) were within allowable use described in the permit across the pasture. Ross meadow is a dry meadow complex dominated by tufted hairgrass and bluegrass species with associated developed spring and historic sheep trough remnants. An existing spring fence is in poor condition. The entire meadow complex is encroached upon by juniper and ponderosa pine.

Baskin Spring is dominated by tufted hairgrass and dry meadow sedges. There is a developed pond system that supports some hydric sedge species. The meadow system is encroached upon by antelope bitterbrush, sagebrush, juniper and ponderosa pine.

Halfway - In addition to periodic in season compliance checks, this pasture was assessed for end of season utilization on September 30th. Ocular estimation of use was 30% at the botany cage at Halfway Lake. Inspections on this meadow complex within this pasture indicated that utilization levels were within allowable use described in the permit.

Antelope Flat #3 (NE) - In addition to periodic in season compliance checks, this pasture was assessed for end of season utilization on September 30th. Ocular estimation of use was 30% at the utilization cage. This community type is a closed basin with an ephemeral channel. Vegetation at the monitoring site is nonnative wheatgrass species with sagebrush and rabbitbrush. This is

within the allowable use level set in the permit.

Tobin Cabin - In addition to periodic in season compliance checks, this pasture was assessed for end of season utilization on September 30th. Ocular estimation of use was approximately 20% at the utilization cage near Emery Well. Measurement of use by weight could not occur because it appeared as though the cage had not been moved, and multiple years of vegetation were present. This moist meadow is dominated by sedge species and heavily encroached upon by lodgepole pine. This is within the allowable use level set in the permit. Inspections were also completed within Sagebrush Draw in season, which indicated appropriate use levels here as well.

Antelope Allotment, Chemult Ranger District

Johnson Meadow - In addition to periodic in season compliance checks in the meadow complex, this pasture was assessed for end of season utilization on September 30th and measured 25% utilization on this site by weight of vegetation. This complex is dominated by tufted hairgrass and forb species with an ephemeral channel that supports some moist sedge species.

Johnson Meadow is experiencing encroachment of lodgepole pine of varying degrees along the stringer system. The trough at this location went dry in late July and water had to be hauled to the site. The spring fence was successful at excluding livestock from the fen system at this location. This fence and water development is the responsibility of the Forest Service to maintain at this time.

Bait in the form of salt and hay placed by hunters was found in this system and may have contributed to pressure on the Jack Creek Riparian Fence in the vicinity. A game camera was placed at a fen system within Johnson Meadow in August to monitor use of the area by livestock and wildlife. Ungulate use at this site for August thru December was rated by occurrence; 1-livestock, 2-elk, 3-deer.

Wilshire Meadow - In addition to periodic in season compliance checks, this dry meadow was assessed for end of season utilization on September 30th and measured 15% utilization on this site by weight of vegetation. A fenced area is present at this site to protect a fen system in its upper reaches and there is associated off site water (trough). This fence and water development is the responsibility of the Forest Service to maintain at this time.

Rock Spring- This system crosses the district boundary between Silver Lake and Chemult Ranger Districts. It consists of a dry meadow system dominated by tufted hairgrass and dry meadow sedge species. This drainage is experiencing both juniper and lodgepole pine encroachment. During a visit on September 30th, use was estimated to be moderate (~40%) based on professional knowledge of site potential. This use is within allowable use described in the permit.

Riders Camp- This system consists of an intermittent channel with associated moist and dry meadow types dominated by sedge species and tufted hairgrass and is excluded from grazing by a fence. This area has moderate to heavy encroachment of lodgepole pine. This site was not assessed for use at the end of the growing season however multiple inspections occurred during the grazing season to assess livestock presence or absence in the fenced area. On one occasion livestock breached this fence and were observed inside the fence area by range management personnel on August 8th. The gate had been pressured in such a way as to allow livestock to gain access to the meadow. The range management specialist reinforced the gate with materials on

hand prior to leaving the site. This fence is the responsibility of the Forest Service to maintain at this time.

Parker Meadow- This system includes both private and public lands. It consists of a moist meadow dominated by tufted hairgrass and moist meadow sedge species and is heavily encroached upon by lodgepole pine. This is not an established key area for monitoring however comparison of vegetation on private versus public land occurred on September 30th. Use on public land was ocularly estimated at the high end of moderate (~50%) based on comparison with the ungrazed private land. This utilization level falls within the allowable use for the management level identified in the Forest Plan.

Little Parker Meadow- This system consists of a moist meadow dominated by moist meadow sedge species and tufted hairgrass and contains a willow component on both sides of the road that bisects the system. This system experienced some level of pine beetle mortality in the last 30 years with large down trees and heavy encroachment of lodgepole pine since that event. Based on professional knowledge of site potential for forage species, use was estimated at the high end of moderate (~50%) which is consistent with the allowable use identified in the Forest Plan for this management level.

There is also a fen associated with this meadow in the upper reach of the system that is heavily encroached upon by lodgepole pine. This fen was visited on September 30th, but not assessed for use because pregrazing conditions were not documented and there is not an approved protocol for measuring or estimating use in fens as yet. A game camera was placed here in August to monitor use of the area by livestock and wildlife. Ungulate use at this site for August thru December was rated by occurrence; 1-deer, 2-livestock, 3- elk.

This fen system is under consideration for fencing and off site water development and analysis has been completed for this work should funding allow for implementation of these projects.

Squirrel Camp- This system has an intermittent reach of stream fenced with the ephemeral reach available for grazing. A trough has been developed onsite. This area was not assessed for use at the end of the growing season, however multiple inspections during the grazing season, indicated that this fence was not breached by livestock and use outside the fence was light (10%) when comparing similar vegetation communities inside and outside the fenced area.

Round Meadow- This site consists of a large meadow complex dominated by sedge species and is not authorized for grazing at this time. Site inspections occurred periodically through the season to assess presence or absence of livestock. Eight pairs of livestock were observed inside the fence on September 12th and were removed by you within two days. Maintenance of this fence is currently the responsibility of the Forest Service. Use was not assessed however livestock presence was estimated at no more than four days in duration.

Research being conducted in the area resulted in use of ATVs to travel across the meadow and exposed soil from digging of test holes. These activities were documented by Forest personnel.

Dry Meadow- This site consists of a fenced spring area dominated by wet meadow sedge species and a dry meadow complex dominated by tufted hairgrass. Moderate encroachment of lodgepole pine is present. Comparison of a portion of dry meadow type inside the fence with the grazed dry meadow was completed on September 30th. Based on observation and professional knowledge, use was ocularly estimated at moderate (~40%), which is within allowable use for

this management level in the Forest Plan.

Cannon Well- This site consists of a fenced riparian area dominated by tufted hairgrass with some moist and dry meadow available for grazing. This area shows heavy encroachment by lodgepole pine. Comparison of similar plant communities inside and outside the fence was completed on September 30th, and use was ocularly estimated at moderate (~40%). This use level is within allowable use for this management level in the Forest Plan.

Crooked Meadow- This meadow system is dominated by moist meadow sedge species with some hairgrass in the drier portions of the system. This meadow is experiencing moderate encroachment of lodgepole pine on the west side with some treatment of encroachment on the east side of the meadow complex. A pumper chance (manmade pond) is present onsite for fire management and water for wildlife and livestock. The upper meadow was assessed for use on September 30th at slight (<10%) based on ocular estimates.

A game camera was placed at a midpoint in the meadow system between the pumper chance and preferred livestock foraging areas to determine use of this system by livestock and wildlife. Focus of the camera was on a fen community within this meadow system and the camera was placed in August. Ungulate use at this site for August thru December was rated by occurrence; 1-deer, 2- elk, 3-livestock.

Sproats Meadow- This meadow system consists of an ephemeral reach dominated by wet and moist meadow sedge species that is fenced and a moist to dry meadow system dominated by tufted hairgrass and sedges. Both show heavy encroachment of lodgepole pine. Comparison of dry meadow vegetation inside and outside the exclosure on September 30th resulted in an ocular estimate of use at a moderate (~40%) level. This use level is within allowable use for this management level in the Forest Plan.

Bait for wildlife in the form of salt and hay were found inside the fenced area at the end of August and livestock had breached the fence to gain access. A gate at the northeast corner was found left open a week after the fence breach and livestock again accessed the fenced area. Due to these issues, livestock grazing occurred within the fenced area, but did not exceed allowable use. The trough at this location experienced some level of tampering by an unknown source in August which resulted in the float system no longer functioning and the trough overflowing. Maintenance of this fence and trough system is currently the responsibility of the Forest Service.

Jack Creek between Jamison Ranch and Moffit private parcels- This riparian area is generally of a perennial type along this section, however extreme drought conditions resulted in this section of stream becoming intermittent in July. Limited water availability resulted in livestock breaching the Jack Creek Riparian Fence in search of water, and at least two instances of gates being left open (August 8 & September 9) also allowed livestock to gain access to this area. Cattle were observed in this area by agency personnel on August 12th, 13th, and 21st with removal confirmed by permittee on August 14th and 22nd. Livestock use was concentrated where water was still available and forage use was determined to be incidental. This area is not authorized for livestock grazing.

Summary:
Twenty four site visits/inspections were completed by the rangeland management specialist, starting on May 6th and continuing through November 6th, and additional site visits were

completed by Forest range personnel and the project area coordinator during this time. Visits included coordination meetings between agencies, permittees and interest groups as well as range readiness, in season compliance, monitoring of other resources and post season range monitoring visits. Photos, inspection notes, phone conversation records and correspondence are filed as part of the permit case file and allotment files at the Paisley Ranger District. Those areas identified in the table are key areas for monitoring, while others described in the report are areas of interest for documenting livestock presence or absence.

These visits indicated that livestock use levels were highly variable across the landscape in both the Silver Lake and Chemult portions of the Antelope Allotments with use being more concentrated around water sources. Range readiness, water availability and plant community conditions were assessed at key areas and critical areas across the allotments starting on May 6th and continuing through the month of May. Weekly visits to the Chemult pasture started in May and were intended to identify any management issues quickly and remedy them in a timely manner.

An overall assessment of utilization on both allotments was completed on September 30th, with allowable use on key areas meeting standards on all sites assessed. The fences at Cannon Well, Dry Meadow, Johnson Meadow, Squirrel Camp, and Wilshire Meadow were successful at excluding livestock while fences at Round Meadow, Riders Camp, Sproats Meadow and the Jack Creek Riparian Fence experienced one or more documented breaches by livestock.

In an effort to better understand the potential effects of livestock grazing to spring and fen communities and changes in wildlife use from fencing, four game cameras were placed within the Chemult Pasture in August. For the time that livestock was present in the pasture, they were the primary user of three of four of the photographed areas. Once livestock were removed, use of all areas by deer, elk and other wildlife increased. The information on livestock versus wildlife use of these areas is intended to be collected for an entire year before the cameras are moved to assess new areas of interest. This will provide a more complete understanding of the annual use of springs, fens and associated meadow communities to help inform future management recommendations and monitoring protocols in the area.

All identified maintenance, modification or new construction of fences were completed by the end of the grazing season. Extreme drought conditions and fire use restrictions resulted in delays in the completion of this work.

Limited water in a year of extreme drought resulted in livestock pressuring fences in search of water; several troughs, ponds and other water sources went dry in late July thru early August and trucking of water to temporary troughs was implemented. The Johnson Meadow solar water system was not functioning properly at the beginning of the season and headbox recharge was reduced to an ineffective rate in late July. Wildlife bait in the form of salt blocks, hay, apples and other supplemental forage also contributed to fence failures in two locations along Jack Creek and in Sproats Meadow. Gates were left open by the public twice along Jack Creek and once at the Sproats Meadow fence.

The off date for the Chemult Pasture was moved up first to September 14th and then to September 6th as a result of natural water shortages and resource concerns associated with livestock accessing places they are not authorized to graze. Livestock observed or photographed in the wrong place at the wrong time, both outside of the allotment boundaries and behind the

Jack Creek Riparian fence resulted in a determination that the actions and timeline for remedy of the 2013 notice of noncompliance was not sufficient and that suspension was necessary. We will be working through the appeal and mediation processes as required in the coming months.

The Oregon spotted frog was listed as threatened through the Endangered Species Act on August 28th. Consultation is necessary to continue grazing in the 2015 grazing season, and the Forest Service and Fish & Wildlife Service will be working through the process in the coming months.

An Environmental Impact Statement and Allotment Management Plan revision are ongoing for both of the Antelope Allotments. It is our hope that management issues and concerns can be addressed and remedied through these updates to grazing strategies, allowable use levels, and monitoring locations on the allotment. Permittee engagement in the process is crucial to ensure that all concerns are considered and the final plan is feasible from a grazing management standpoint.

Recommendations:
In the event that extreme drought conditions continue in the 2015 grazing season, hauling of water to temporary trough locations prior to livestock entry into the Chemult Pasture and throughout the season should be considered to reduce livestock pressure on fences. Placement of temporary troughs in the Tobin Cabin Pasture should avoid areas where livestock could travel spur roads to gain access to areas not currently permitted for the Antelope allotments.

In the event that heavy maintenance or reconstruction of range improvements is scheduled, work on such projects should begin as early as possible to avoid stoppage of work due to fire use restrictions. Also consider drafting and executing waivers prior to implementation of restrictions to avoid or minimize delays in ability to complete work as assigned.

When bringing livestock onto the Chemult Pasture, limit the amount of time spent in the southeast corner of the pasture, as this area is also utilized for removal of livestock at the end of the grazing season. This strategy will reduce the chance of exceeding allowable use or having unacceptable effects to resources in this area.

Many of those areas assessed for use but not established as key areas have been recommended for establishment of key areas during the next update to the AMP if appropriate. This will require site visits to agree upon the appropriate locations for new designated monitoring areas across the allotment.

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