

Appendix K – Livestock Grazing

This appendix provides the background information regarding standards for range improvements, grazing allotments, and standards for rangeland health. These topics are referenced in Chapters 1-3.

This appendix contains the following:

- Standard procedures and design elements for range improvements within the Medford District and Klamath Falls Field Office
- Grazing Allotments in the Klamath Falls Field Office and Medford District
- Standards for Rangeland Health
- Drought management policies

Standard Procedures and Design Elements for Range Improvements within the Klamath Falls Field Office and Medford District

The following standard procedures and design elements would be adhered to in implementation of the proposed construction of range improvements within the Klamath Falls Field Office and Medford District:

- Inventories and surveys for cultural resources, threatened and endangered species, and Special Status Species would be conducted prior to authorization of any project construction, and appropriate mitigation implemented to reduce or eliminate potential effects.
- Surface disturbance at all project sites would be held to a minimum. Disturbed soil would be rehabilitated to blend into surrounding soil surface and reseeded as needed with a mixture of native grasses, forbs, shrubs, and trees as applicable to replace ground cover, reduce soil loss from wind and water erosion, and discourage the potential establishment of any invasive, non-native plant species.
- Where possible, existing roads and trails would provide access for range improvement construction. If needed, unimproved trails and tracks would be created to reach construction sites and provide access for future maintenance of the improvements. Locate unimproved trails or tracks outside riparian management areas where workable.

All range improvements would be constructed in accordance with USDI BLM Manual 1741-1 (1989, Fencing), USDI BLM Manual 1741-2 (1990, Water Developments) and Oregon Water Resources Department for water developments.

Additional design features specific to the individual types of improvements are the following:

Reservoirs

- Development of reservoirs would involve the construction of pits and dams to impound water for livestock and wildlife use.
- Pits would be in dry lake beds or other natural depressions. Dams would be constructed in drainages or to one side of a drainage, with a diversion ditch constructed into the impoundment area.
- Water right applications would be coordinated as needed with applicable agencies, irrigation districts, and other interested parties.

- A water right permit would be obtained from the Oregon Water Resources Department prior to construction.
- Water storage capacity would not exceed 3.0 acre-feet.
- Dams would be located, if possible, to take advantage of natural spillway sites; otherwise, a spillway would be constructed around the dam for the reservoir. The slopes of the dam must be a minimum 3 to 1 on the upstream face and minimum of 2 to 1 on the downstream face. Minimum width of the top of all dams would be 12 feet.
- The spillway would be designed to withstand the 50-year flood flow without overtopping the dam. It should also direct the pass flow downstream to prevent erosion of the embankment.
- Fill material, if needed, would come from the impoundment area and/or a borrow area for dams.
- Excavated material from pits would be piled adjacent to the pit. The potential for erosion of the excavated material into the pit would be eliminated. Topsoil would be stockpiled and used to rehabilitate the borrow areas.
- All brush, stumps, roots, and organic matter would be cleared from the borrow area and beneath the dam. Only fill materials consisting of non-organic and cohesive soils adjusted in moisture to optimum water content would be used for construction of the dam. Individual layers would not exceed 8 inches in thickness and would be compacted with a sheepsfoot roller or similar equipment. Fill material should be placed in thin layers parallel with the long axis of the dam.

Spring Developments

- The spring source would be fenced to prevent livestock grazing and trampling.
- Escape ramps would be installed in all water troughs to allow wildlife to escape.
- Overflow from troughs would be piped away from the developed source area.

Fencing

- Fences would be designed to prevent the passage of livestock without stopping the movement of wildlife.
- Wire spacing would follow these specifications :The majority of fences would be constructed as follows: 4-wire with the bottom wire 16-18 inches off the ground with the sequence of the remaining 3-wires above this being 6 inches, 6 inches, and 12 inches; the maximum height of the fence (ground to top wire) would be 42 inches.
- The bottom wire on all fencing would be 2-strand smooth wire, not barbed, to facilitate antelope crossings.
- Steel “t-post” spacing would be between 16 feet and 24 feet, depending on local conditions.
- Brace posts, tree scabs, and/or rock jacks (rock cribs) would be constructed to enhance fence integrity with one at least every 0.25 mile.
- No woven wire “sheep” fences would be constructed on public lands.
- Brushing and tree limb removal will be limited to only that necessary for surveying, placement, and construction of a fence.
- Where fences cross existing roads, either gates or cattle guards would be installed.
- Where workable, fence construction would be located outside riparian management areas.

Grazing Allotments in the Klamath Falls Field Office and Medford District

The following tables summarize information for allotments on the Klamath Falls Field Office and the Medford District. **Table K-1** and **Table K-2** contain detailed information about these grazing allotments including acres derived from the BLM allotment and pasture boundary (GRA) theme. For all allotments proposed to be made unavailable to livestock grazing see Appendix B (Management Direction).

Table K-1. Klamath Falls Field Office available grazing allotments.

Allotment Name	Allotment Number	BLM Acres	Active Grazing Preference (AUMs) ²	Suspended Grazing Preference (AUMs)	Season-of-Use	Selective Management Category ⁴	Rangeland Health Assessment Completed	Rangeland Health Assessment Finding ⁴	Grazing System	Wildlife AUM's	Other Information
Chase Mountain	00101	9,213	195	-	5/15-8/13	C	2001	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 1,681, Horses 100	Critical deer winter range habitat occurs within the allotment. Allotment contains a portion of the HMA.
Edge Creek	00102	8,241	207	-	5/1-9/1	I	2000	Not Meeting Standards; Grazing is not a factor.	Deferred-Rotation		Range Improvement Potential, common allotment, exclosures or other areas closed to grazing, portion proposed for closure.
Buck Mountain ¹	00103	7,416	204	-	5/15-9/1	I	2000	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 1,643	None
Buck Lake	00104	12,019	280	-	6/15-10/15	C	2000	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 2,129	Range Improvement Potential, common allotment, exclosures or other areas closed to grazing
Johnson Prairie	00105	120	12	-	5/1-10/1	C	2000	Not Meeting Standards; Grazing is not a factor.	Yearly		None
Dixie ¹	00107	4,436	320	100	5/1-8/15	I	2002	Not Meeting Standards; Grazing is a factor.	Yearly	Deer 928, Elk 100, Horses 50	Range Improvement Potential, exclosures or other areas closed to grazing. Allotment contains portion of the HMA.
Dry Lake	00140	101	10	-	5/1-6/30	C	2001	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 10	None
Chicken Hills	00141	3,602	80	-	5/15-9/15	C	2001	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 931	None
Long Lake	00142	366	18	-	6/16-9/30	C	2000	Meeting All Standards	Yearly		None
Grubb Springs	00147	3,563	130	-	5/1-9/30	C	2000	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 650	None

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Adams	00800	40	6	-	4/15-7/15	C	2005	Not Meeting Standards, Grazing is a factor	Yearly		None
Haught	00801	401	27	-	5/1-7/31	C	Not Completed	Not Completed	Yearly	Deer 7	None
Stock Drive	00802	40	2	-	5/1-6/30	C	2006	Meeting All Standards	Yearly		None
J Spring	00803	241	7	-	5/1-6/30	C	2003	Meeting All Standards	Yearly	Deer 6 Antelope 2	None
Bar CL	00804	481	20	22	5/1-5/31	C	Not Completed	Not Completed	Yearly	Deer 10	None
SE 80	00805	80	8	-	5/1-10/31	C	2006	Meeting All Standards	Yearly	Deer 1	None
Two Mile	00806	659	56	-	5/1-9/30	C	2006	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 16 Elk 16	None
Barnwell	00807	1,634	75	-	5/1-6/15	C	Not Completed	Not Completed	Yearly	Deer 80	Range Improvement Potential
Lee	00808	40	10	-	6/1-8/15	C	Not Completed	Not Completed	Yearly		None
Brown	00809	80	30	-	6/1-8/30	C	Not Completed	Not Completed	Yearly	Deer 1	None
Brenda	00810	120	18	-	5/16-6/30	C	2006	Meeting All Standards	Yearly	Deer 24 Elk 24	None
Cheyne	00811	809	51	-	5/1-6/15	C	2004	Meeting All Standards	Yearly	Deer 40	None
Stukel-Coffin	00812	729	55	-	5/1-7/1	C	2002	Meeting All Standards	Yearly	Deer 14, Elk 5	None
Plum Hills	00813	163	20	-	5/1-6/15	C	Not Completed	Not Complete	Yearly	Deer 4	None
Cunningham	00814	839	108	-	5/1-6/15	C	Not Completed	Not Completed	Yearly	Deer 14	None
Stukel-Dehlinger C.	00815	1,683	240	-	4/15-8/8	I	2002	Meeting All Standards	Yearly	Deer 31, Elk 11	None
Stukel-Dehlinger H.	00816	387	30	-	5/10-8/10	C	2002	Meeting All Standards	Yearly	Deer 8	None

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Drew	00817	766	72	-	5/1-6/30	C	2005	Meeting All Standards	Yearly	Deer 34, Elk 14	None
Duncan	00818	202	15	-	5/1-6/15	C	Not Completed	Not Completed	Yearly	Deer 4	None
Dupont	00819	77	7	-	4/15-6/1	C	Not Completed	Not Completed	Yearly		None
North Horsefly	00821	1,287	68	-	5/1-6/15	C	2007	Meeting All Standards	Yearly	Deer 18	None
Stukel-O'Neill	00822	3,405	210	-	5/1-7/15	I	2002	Meeting All Standards	Yearly	Deer 59, Elk 20	Exclosures or other areas closed to grazing
North Horsefly	00823	569	60	-	6/16-8/1	C	2007	Meeting All Standards	Yearly	Deer 17	None
Jeld-Wen	00824	313	36	-	6/1-7/15	C	2006	Meeting All Standards	Yearly	Deer 7	None
Naylox	00825	757	76	-	5/1-6/30	C	2005	Meeting All Standards	Yearly	Deer 14	None
Haskins	00826	567	80	-	5/1-7/15	C	2004	Meeting All Standards	Yearly	Deer 11	None
Stukel-High	00827	347	17	-	5/1-6/15	C	2003	Meeting All Standards	Yearly	Deer 5	None
Stukel-Hill	00828	975	60	-	5/1-6/15	C	2002	Meeting All Standards	Yearly	Deer 18, Elk 7	None
Horton	00829	757	26	-	4/21-6/30	C	Not Completed	Not Completed	Yearly	Deer 36	Range Improvement Potential
Hungry Hollow	00830	281	40/H	-	6/1-8/30	C	2005	Meeting All Standards	Yearly	Deer 5	Proposed for conversion from horse to cattle
Warlow	00831	560	50	-	5/1-9/30	C	2007	Meeting All Standards	Yearly	Deer 8, Elk 3	None
Jespersion	00832	1,559	158	-	5/1-7/1	C	Not Completed	Not Completed	Yearly	Deer 30, Elk 30	None
Kellison	00834	352	19	-	5/1-6/13	C	2004	Not Meeting Standards; Grazing is not a factor.	Yearly	Deer 6	None
Ketcham	00835	381	20	-	5/1-6/15	C	Not Completed	Not Completed	Yearly	Deer 16	Range Improvement Potential
Harpold Chaining	00836	850	96	-	5/1-5/30	C	2007	Not Meeting Standards; Grazing is a factor.	Yearly	Deer 101	Range Improvement Potential

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Bryant-Horton	00837	1,210	130	-	6/1-7/9	C	2006	Meeting All Standards	Yearly	Deer 24, Elk 8	None
Windy Ridge	00838	602	52	-	5/1-5/31	C	Not Completed	Not Completed	Yearly	Deer 11	Range Improvement Potential
Bryant-Loveness	00839	3,306	490	-	5/1-6/30	C	Not Completed	Not Completed	Yearly	Deer 161, Elk 21	Range Improvement Potential
Bryant-Lyon	00840	569	38	-	5/1-9/30	C	Not Completed	Not Completed	Yearly	Deer 11	None
Marshall	00841	351	14	-	4/21-5/30	C	Not Completed	Not Completed	Yearly	Deer 17	None
Short Lake	00842	428	40	-	5/1-6/30	C	2005	Not Meeting Standards; Grazing is a factor.	Yearly	Deer 42	Range Improvement Potential
McAuliffe	00843	87	10	-	4/16-6/15	C	Not Completed	Not Completed	Yearly	Deer 1	None
Paddock	00844	399	31	-	5/1-6/30	M	2003	Meeting All Standards	Deferred-Rotation	Deer 8, Antelope 3	None
Klamath Hills	00845	197	55	-	4/1-5/31	C	Not Completed	Not Completed	Yearly	Deer 10	None
OK	00846	1,289	105	35	5/1-6/15	C	Not Completed	Not Completed	Yearly	Deer 24	Range Improvement Potential
Swede Cabin	00847	2,018	108	-	5/1-6/15	I	2007	Meeting All Standards	Yearly	Deer 36	Range Improvement Potential
Pope	00848	446	48	-	5/1-7/31	C	2007	Meeting All Standards	Yearly	Deer 19	None
Rajmus Bros.	00849	240	16	-	5/1-6/17	C	Not Completed	Not Completed	Yearly	Deer 10	None
Wilkinson	00850	398	18	-	5/1-6/5	C	Not Completed	Not Completed	Yearly	Deer 6	None
Harpold Ridge	00851	1,049	108	-	4/21-6/30	M	2006	Meeting All Standards	Yearly	Deer 49	None
Rodgers	00852	2,448	235	-	5/1-7/1	I	2003	Meeting All Standards	Yearly	Deer 48, Elk 17	Exclosures or other areas closed to grazing.
7C	00853	646	104	-	5/1-6/30	C	2007	Meeting All Standards	Yearly	Deer 13	None
Jump	00854	200	20	-	5/1-5/30	C	2007	Meeting All Standards	Yearly	Deer 4	None
Bryant-Smith	00855	1,217	109	-	5/15-8/31	C	2007	Meeting All Standards	Yearly	Deer 22, Elk 7	None

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Bryant-Stastny	00856	443	70	-	5/10-9/30	C	2007	Meeting All Standards	Yearly	Deer 8, Elk 3	None
Bryant-Taylor	00857	765	74	-	4/15-9/30	C	2007	Meeting All Standards	Yearly	Deer 14, Elk 4	None
Swan Lake Rim	00858	6,524	300	-	5/1-6/30	M	2006	Meeting All Standards	Rest-Rotation	Deer 121, Elk 116	Common allotment
Cunard	00859	468	60/H	-	5/1-7/31	C	2002	Meeting All Standards	Rest-Rotation	Deer 7	Proposed for conversion from horse to cattle.
McCartie	00860	556	83	-	5/1-5/30	C	2004	Meeting All Standards	Rest-Rotation	Deer 25	None
Yainax Butte	00861	2,919	120	-	7/1-9/30	M	2005	Meeting All Standards	Deferred-Rotation	Deer 119	Exclosures or other areas closed to grazing.
Klamath Forest Estates	00862	2,742	47	-	5/1-5/31	M	2005	Meeting All Standards	Yearly	Deer 47	None
Wirth	00863	1,361	100	-	4/15-10/15	C	Not Completed	Not Meeting Standards Grazing is not a factor	Yearly	Deer 25	None
Rajanus & Son	00864	1,459	110	-	5/1-6/30	C	2007	Not Meeting Standards Grazing is not a factor	Yearly	Deer 28	None
Mills Creek	00865	283	40	-	5/1-6/14	C	Not Completed	Not Meeting Standards Grazing is not a factor	Yearly	Deer 5	Range Improvement Potential
Bear Valley	00876	4,980	415	-	7/1-8/9	I	2000/2003	Meeting All Standards	Deferred-Rotation	Deer 94, Antelope 34	Common allotment, exclosures or other areas closed to grazing
Bumpheads	00877	9,385	420	265	4/21-6/30	I	2003	Not Meeting Standards; Grazing is a factor.	Deferred-Rotation	Deer 173, Antelope 63	Exclosures or other areas closed to grazing
Campbell	00878	1,370	47/H	13	5/1-10/26	C	2002	Meeting All Standards	Yearly	Deer 28, Antelope 10	Proposed for conversion from horse to cattle.
DeVault	00879	378	12	15	5/1-8/30	C	2003	Meeting All Standards	Yearly	Deer 5, Antelope 2	None
Goodlow	00881	348	32	52	5/1-8/31	C	2003	Meeting All Standards	Yearly	Deer 6, Antelope 2	None

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Horsefly	00882	26,947	2,656	2075	4/15-6/30, 10/1-11/15	I	1999/2003	Meeting All Standards	Rest-Rotation/ High Intensity-Short Duration	Deer 495, Elk 30, Antelope 181	Exclosures or other areas closed to grazing, common allotment
Horton	00883	1,005	58	211	4/21-5/20	C	2002	Meeting All Standards	Yearly	Deer 41, Antelope 6	None
Pankey Basin	00884	309	43	38	5/15-8/31	C	2003	Not Meeting Standards; Grazing is a factor.	Yearly	Deer 5, Antelope 2	Range Improvement Potential, exclosures or other areas closed to grazing
Dry Prairie	00885	8,025	642	358	5/1-9/30	I	1999/2003	Meeting All Standards	Rest-Rotation	Deer 149, Antelope 55	Exclosures or other areas closed to grazing, common allotment, proposed range improvement.
Horse Camp Rim	00886	8,928	445	281	5/1-7/31	I	2003	Meeting All Standards	Rest-Rotation	Deer 172, Antelope 63	Exclosures or other areas closed to grazing
Pitchlog	00887	9,402	434	796	5/10-6/30	I	1999/2003	Meeting All Standards	Rest-Rotation/ High Intensity-Short Duration	Deer 174, Elk 37, Antelope 64	Exclosures or other areas closed to grazing
Rock Creek	00888	2,521	216	639	5/1-5/31	I	2003	Meeting All Standards	Rest-Rotation	Deer 130, Antelope 19	None
Timber Hill	00889	2,542	270	134	6/21-7/31	I	1999/2003	Meeting All Standards	Yearly	Deer 55, Antelope 20	None
Willow Valley	00890	19,925	1,225	506	4/15-6/30	I	2000/2003	Not Meeting Standards, Grazing is a factor	Rest-Rotation	Deer 960, Antelope 141	Exclosures or other areas closed to grazing, common allotment.
Williams	00892	1,854	75	-	5/1-5/31	M	2004	Meeting All Standards	Yearly	Deer 34, Antelope 12	None
Fields	00893	26	6	-	4/21-5/20	C	2005	Meeting All Standards	Yearly	Deer 4, Antelope 1	None

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Voight	00894	112	8	-	5/1-6/15	C	2003	Meeting All Standards	Yearly	Deer 2	None
Harpold Canyon	00895	1,085	76	-	5/1-9/30	C	2006	Meeting All Standards	Yearly	Deer 20	None
McFall	00896	578	60	-	5/1-6/30	C	2006	Meeting All Standards	Yearly	Deer 11	Common allotment
Bly Mountain	01800	120	9	-	6/1-8/31	C	Not Completed	Not Completed	Yearly		None

¹ All or a portion of the allotment is located within the Cascade Siskiyou National Monument

² Active Preference is cattle AUMs, unless specified as H for domestic horse use.

³ Selective Management Categories: Improve (I)-managed to resolve a high level of resource conflicts and concerns and receive the highest priority for funding and management actions; Maintain (M)-managed to maintain satisfactory resource conditions and will be actively managed to ensure that resource values do not decline; Custodial (C)-managed custodially to protect resource conditions and values.

⁴ In allotments where grazing was a factor to nonattainment of a RHA standard, within one year of the assessment, a change to livestock grazing was implemented to eliminate livestock grazing as a contributing factor.

Table K-2. Medford District grazing allotments.

Allotment Name	Allotment Number	BLM Acres	Active Grazing Preference (AUMs) ²	Suspended Grazing Preference (AUMs)	Season-of-Use ³	Selective Management Category ⁴	Rangeland Health Assessment Completed	Rangeland Health Assessment Findings ⁵	Grazing System	Other Information
Lost Creek	10001	9,962	382	-	Sp, Su, F	I	2001	Not Meeting Standards, Grazing is not a factor	Yearly	Common Allotment
Flat Creek	10002	12,066	328	-	Su, F	C	2000	Not Meeting Standards, Grazing is not a factor	Yearly	None
Longbranch	10004	324	22	-	Sp, Su	C	2002	Meeting All Standards	Yearly	Portion Proposed for Closure
Meadows	10007	1,563	92	-	Sp, Su	I	2003	Meeting All Standards	Yearly	None
Neil-Tarbell	10008	517	56	-	Sp, Su	C	2011	Meeting All Standards	Yearly	None
North Sams Valley	10009	120	8	-	Su	C	2002	Not Meeting Standards, Grazing is not a factor	Yearly	None
Upper Table Rock	10012	714	66	-	Su	I	2003	Not Meeting Standards, Grazing is not a factor	Yearly	None
Clear Creek	10013	3,794	45	-	Su, F	C	2002	Meeting All Standards	Yearly	None
Lick Creek	10015	201	15	-	Sp, Su	C	2003	Meeting All Standards	Yearly	None
Brownsboro Park	10016	382	68	-	Sp, Su	I	2002	Not Meeting Standards, Grazing is not a factor	Yearly	None
Kanutchan Fields	10017	2,427	177	-	Sp, Su	I	2002	Not Meeting Standards, Grazing is not a factor	Yearly	None

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Sugarloaf	10019	1,570	15	-	Sp, Su	C	2002	Meeting All Standards	Yearly	None
Section 9	10021	403	25	-	Sp, Su	C	2003	Meeting All Standards	Yearly	None
Section 7	10022	374	11	-	Sp, Su	C	2003	Not Meeting Standards, Grazing is not a factor	Yearly	None
Bull Run	10023	40	5	-	Su	C	2011	Meeting All Standards	Yearly	None
Big Butte	10024	21,802	1,663	-	Sp, Su	I	2000	Not Meeting Standards, Grazing is not a factor	Deferred-Rotation	Common Allotment
Reese Creek	10027	40	7	-	Su	C	1999	Meeting All Standards	Yearly	Common Allotment
Derby Road Sawmill	10029	524	45	-	Sp, Su	C	2003	Meeting All Standards	Yearly	None
Summit Prairie	10031	30,578	1,165	-	Sp, Su, F	I	2000	Not Meeting Standards, Grazing is not a factor	Deferred-Rotation	Common Allotment
Vestal Butte	10035	2,243	120	-	Sp, Su	I	2011	Meeting all Standards	Yearly	None
Bear Mountain	10037	1,006	81	-	Sp, Su	I	2011	Meeting All Standards	Yearly	None
Crowfoot	10038	7,400	365	-	Sp, Su	I	2011	Meeting All Standards	Yearly	None
Crowfoot Creek	10039	516	70	-	Sp, Su	C	2008	Meeting All Standards	Yearly	None
Cobleigh Road	10040	89	7	-	Su	C	2003	Meeting All Standards	Yearly	None
Moser Mountain	10041	40	3	-	Sp	C	2011	Meeting All Standards	Yearly	None
Devon South	10043	412	33	-	Sp, Su	C	2008	Meeting All Standards	Yearly	None
Salt Creek	10044	463	85	-	Sp, Su	I	2002	Meeting All Standards	Yearly	None
Cove Creek	10112	1,290	75	-	Su	I	2011	Not Meeting the Standard and Grazing is a factor	Yearly	None
Buckpoint	10114	3,845	150	-	Su	C	2008	Not Meeting Standards, Grazing is not a factor	Yearly	None
Howard Prairie	10116	24	60	-	F, W	M	2012	Not Meeting the Standard and Grazing is not a factor	Yearly	None
Grizzly	10119	5,153	378	-	Su, F	I	1999	Not Meeting Standards, Grazing is not a factor	Yearly	Common Allotment
Lake Creek Spring	10121	4,250	447	-	Su	I	2009	Not Meeting Standards, Grazing is not a factor	Yearly	None
Lake Creek Summer	10122	4,442	550	-	Su, F	I	2009	Not Meeting Standards, Grazing is not a factor	Yearly	None

Allotment Name	Allotment Number	BLM Acres	Active Grazing Preference (AUMs) ²	Suspended Grazing Preference (AUMs)	Season-of-Use ³	Selective Management Category ⁴	Rangeland Health Assessment Completed	Rangeland Health Assessment Findings ⁵	Grazing System	Other Information
Deer Creek-Reno Lease	10124	4,062	314	-	Su, F	C	2009	Not Meeting Standards, Grazing is not a factor	Yearly	None
Heppsie Mountain	10126	4,105	294	-	Su, F	I	2007	Not Meeting Standards, Grazing is not a factor	Yearly	None
Antelope Road	10132	403	19	-	Sp, Su	C	2003	Not Meeting Standards, Grazing is not a factor	Yearly	None
Brownsboro	10133	121	7	-	Sp, Su	C	2003	Not Meeting Standards, Grazing is a factor	Yearly	None
Yankee Reservoir	10134	442	15	-	Su	I	2003	Not Meeting Standards, Grazing is a factor	Yearly	None
Canal	10136	440	58	-	Su	C	2003	Not Meeting Standards, Grazing is a factor	Yearly	None
Cove Ranch	10143	80	20	-	Su, F, W	C	2009	Not Meeting Standards, Grazing is not a factor	Yearly	None
North Cove Creek	10148	284	20	-	Su, F	C	2009	Not Meeting Standards, Grazing is not a factor	Yearly	None
Deadwood ¹	20106	7,966	788	-	Su	I	Not Completed	Not Completed	Yearly	Common Allotment
Poole Hill	20113	1,731	25	-	F	C	2007	Not Meeting Standards, Grazing is not a factor	Yearly	None
Conde Creek	20117	5,491	591	-	Su, F	I	2009	Not Meeting Standards, grazing is a factor	Yearly	Common Allotment
Billy Mountain	20203	4,977	175	-	Sp, Su	I	1999	Not Meeting Standards, Grazing is not a factor	Yearly	None
Lower Big Applegate	20206	11,909	258	-	Sp, Su	I	2012	Not Meeting Standards, Grazing is not a factor.	Yearly	None
Foots Creek	20219	115	12	-	Su	C	2009	Meeting All Standards	Yearly	None
Ferns Lease	20224	248	28	-	Su	C	Not Completed	Not Completed	Yearly	None
Deer Creek	20308	894	77	-	Sp, Su, F, W	C	2003	Not Meeting Standards, Grazing is not a factor	Yearly	Portion Proposed for Closure

¹ All or a portion of the allotment is located within the Cascade Siskiyou National Monument.

² Active Preference is cattle AUMs.

³ Season of use categories for Medford W= winter (Nov-Jan), Sp=spring (Feb-Apr), Su=summer (May-Aug), F=fall (Sept-Oct)

⁴ Selective Management Categories: Improve (I)-managed to resolve a high level of resource conflicts and concerns and receive the highest priority for funding and management actions; Maintain (M)-managed to maintain satisfactory resource conditions and will be actively managed to ensure that resource values do not decline; Custodial (C)-managed custodially to protect resource conditions and values.

⁵ In allotments where grazing was a factor to nonattainment of a RHA standard, within one year of the assessment, a change to livestock grazing was implemented to eliminate livestock grazing as a contributing factor.

Standards for Rangeland Health

The following section contains the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington*. These standards and guidelines are referenced in *Chapters 2 and 3* of this Draft EIS. Livestock grazing would be managed in accordance with these standards and guidelines.

STANDARDS FOR RANGELAND HEALTH
AND
GUIDELINES FOR LIVESTOCK GRAZING
MANAGEMENT
FOR
PUBLIC LANDS ADMINISTERED BY THE BUREAU OF
LAND MANAGEMENT IN THE STATES OF OREGON
AND
WASHINGTON
AUGUST 12, 1997

Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington

Introduction

These Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands in Oregon and Washington were developed in consultation with Resource Advisory Councils and Provincial Advisory Committees, tribes and others. These standards and guidelines meet the requirements and intent of 43 Code of Federal Regulations, Subpart 4180 (Rangeland Health) and are to be used as presented, in their entirety. These standards and guidelines are intended to provide a clear statement of agency policy and direction for those who use public lands for livestock grazing, and for those who are responsible for their management and accountable for their condition. Nothing in this document should be interpreted as an abrogation of Federal trust responsibilities in protection of treaty rights of Indian tribes or any other statutory responsibilities including, but not limited to, the Taylor Grazing Act, the Clean Water Act, and the Endangered Species Act.

Fundamentals of Rangeland Health

The objectives of the rangeland health regulations referred to above are “to promote healthy sustainable rangeland ecosystems; to accelerate restoration and improvement of public rangelands to properly functioning conditions; . . . and to provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands.”

To help meet these objectives, the regulations on rangeland health identify fundamental principles providing direction to the States, districts, and on-the-ground public land managers and users in the management and use of rangeland ecosystems.

A hierarchy, or order, of ecological function and process exists within each ecosystem. The rangeland ecosystem consists of four primary, interactive components: a physical component, a biological component, a social component, and an economic component. This perspective implies that the physical function of an ecosystem supports the biological health, diversity, and productivity of that system. In turn, the interaction of the physical and biological components of the ecosystem provides the basic needs of society and supports economic use and potential.

The Fundamentals of Rangeland Health stated in 43 CFR 4180 are:

1. Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity and the timing and duration of flow.
2. Ecological processes, including the hydrologic cycle, nutrient cycle and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
3. Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established Bureau of Land Management objectives such as meeting wildlife needs.

4. Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species.

The fundamentals of rangeland health combine the basic precepts of physical function and biological health with elements of law relating to water quality, and plant and animal populations and communities. They provide direction in the development and implementation of the standards for rangeland health.

Standards for Rangeland Health

The standards for rangeland health (standards), based on the above fundamentals, are expressions of the physical and biological condition or degree of function necessary to sustain healthy rangeland ecosystems. Although the focus of these standards is on domestic livestock grazing on Bureau of Land Management lands, on-the-ground decisions must consider the effects and impacts of all uses.

Standards that address the physical components of rangeland ecosystems focus on the roles and interactions of geology and landform, soil, climate and water as they govern watershed function and soil stability. The biological components addressed in the standards focus on the roles and interactions of plants, animals and microbes (producers, consumers and decomposers), and their habitats in the ecosystem. The biological component of rangeland ecosystems is supported by physical function of the system, and it is recognized that biological activity influences and supports many of the ecosystem's physical functions.

Guidance contained in 43 CFR 4180 of the regulations directs management toward the maintenance or restoration of the physical function and biological health of rangeland ecosystems. Focusing on the basic ecological health and function of rangelands is expected to provide for the maintenance, enhancement, or creation of future social and economic options.

The standards are based upon the ecological potential and capability of each site. In assessing a site's condition or degree of function, it must be understood that the evaluation compares each site to its own potential or capability. Potential and capability are defined as follows:

- **Potential**-The highest level of condition or degree of function a site can attain given no political, social, or economic constraints.
- **Capability**-The highest level of condition or degree of function a site can attain given certain political, social, or economic constraints. For example, these constraints might include riparian areas permanently occupied by a highway or railroad bed that prevent the stream's full access to its original flood plain. If such constraints are removed, the site may be able to move toward its potential.

In designing and implementing management strategies to meet the standards of rangeland health, the potential of the site must be identified, and any constraints recognized, in order that plan goals and objectives are realistic and physically and economically achievable.

Standards and Guidelines in Relation to the Planning Process

The standards apply to the goals of land use plans, activity plans, and project plans (Allotment Management Plans, Annual Operating Plans, Habitat Management Plans, etc.). They establish the physical and biological conditions or degree of function toward which management of publicly-owned rangeland is to be directed. In the development of a plan, direction provided by the standards and the

social and economic needs expressed by local communities and individuals are brought together in formulating the goal(s) of that plan.

When the standards and the social and economic goals of the planning participants are woven together in the plan goal(s), the quantifiable, time specific objective(s) of the plan are then developed. Objectives describe and quantify the desired future conditions to be achieved within a specified timeframe. Each plan objective should address the physical, biological, social, and economic elements identified in the plan goal.

Standards apply to all ecological sites and landforms on public rangelands throughout Oregon and Washington. The standards require site-specific information for full on-ground usability. For each standard, a set of indicators is identified for use in tailoring the standards to site-specific situations. These indicators are used for rangeland ecosystem assessments and monitoring and for developing terms and conditions for permits and leases that achieve the plan goal.

Guidelines for livestock grazing management offer guidance in achieving the plan goal and objectives. The guidelines outline practices, methods, techniques and considerations used to ensure that progress is achieved in a way, and at a rate, that meets the plan goal and objectives.

Indicators of Rangeland Health

The condition or degree of function of a site in relation to the standards and its trend toward or away from any standard is determined through the use of reliable and scientifically sound indicators. The consistent application of such indicators can provide an objective view of the condition and trend of a site when used by trained observers.

For example, the amount and distribution of ground cover can be used to indicate that infiltration at the soil surface can take place as described in the standard relating to upland watershed function. In applying this indicator, the specific levels of plant cover necessary to support infiltration in a particular soil should be identified using currently available information from reference areas, if they exist; from technical sources like soil survey reports, Ecological Site Inventories, and Ecological Site Descriptions, or from other existing reference materials. Reference areas are lands that best represent the potential of a specific ecological site in both physical function and biological health. In many instances potential reference areas are identified in Ecological Site Descriptions and are referred to as “type locations.” In the absence of suitable reference areas, the selection of indicators to be used in measuring or judging condition or function should be made by an interdisciplinary team of experienced professionals and other trained individuals.

Not all indicators identified for each standard are expected to be employed in every situation. Criteria for selecting appropriate indicators and methods of measurement and observation include, but are not limited to: 1. the relationship between the attribute(s) being measured or observed and the desired outcome; 2. the relationship between the activity (e.g., livestock grazing) and the attribute(s) being measured or observed; and 3. funds and workforce available to conduct the measurements or observations.

Assessments and Monitoring

The standards are the basis for assessing and monitoring rangeland condition and trend. Carrying out well-designed assessment and monitoring is critical to restoring or maintaining healthy rangelands and determining trends and conditions.

Assessments are a cursory form of evaluation based on the standards that can be used at different landscape scales. Assessments, conducted by qualified interdisciplinary teams (which may include but are not limited to physical, biological, and social specialists, and interagency personnel) with participation

from permittees and other interested parties, are appropriate at the watershed and sub-watershed levels, at the allotment and pasture levels and on individual ecological sites or groups of sites. Assessments identify the condition or degree of function within the rangeland ecosystem and indicate resource problems and issues that should be monitored or studied in more detail. The results of assessments are a valuable tool for managers in assigning priorities within an administrative area and the subsequent allocation of personnel, money and time in resource monitoring and treatment. The results of assessments may also be used in making management decisions where an obvious problem exists.

Monitoring, which is the well documented and orderly collection, analysis and interpretation of resource data, serves as the basis for determining trends in the condition or degree of function of rangeland resources and for making management decisions. Monitoring should be designed and carried out to identify trends in resource conditions, to point out resource problems, to help indicate the cause of such problems, to point out solutions, and/or to contribute to adaptive management decisions. In cases where monitoring data do not exist, professional judgment, supported by interdisciplinary team recommendation, may be relied upon by the authorized officer in order to take necessary action. Review and evaluation of new information must be an ongoing activity.

To be effective, monitoring must be consistent over time, throughout administrative areas, and in the methods of measurement and observation of selected indicators. Those doing the monitoring must have the knowledge and skill required by the level or intensity of the monitoring being done, as well as the experience to properly interpret the results. Technical support for training must be made available.

Measurability

It is recognized that not every area will immediately meet the standards and that it will sometimes be a long-term process to restore some rangelands to properly functioning condition. It is intended that in cases where standards are not being met, measurable progress should be made toward achieving those standards, and significant progress should be made toward fulfilling the fundamentals of rangeland health. Measurability is defined on a case-specific basis based upon the stated planning objectives (i.e., quantifiable, time specific), taking into account economic and social goals along with the biological and ecological capability of the area. To the extent that a rate of recovery conforms with the planning objectives, the area is allowed the time to meet the standard under the selected management regime.

Implementation

The material contained in this document will be incorporated into existing Land Use Plans and used in the development of new Land Use Plans. According to 43 CFR 4130.3-1, permits and leases shall incorporate terms and conditions that ensure conformance with 43 CFR 4180. Terms and conditions of existing permits and leases will be modified to reflect standards and guidelines at the earliest possible date with priority for modification being at the discretion of the authorized officer. Terms and conditions of new permits and leases will reflect standards and guidelines in their development.

Indicators identified in this document will serve as a focus of interpretation of existing monitoring data and will provide the basis of design for monitoring and assessment techniques, and in the development of monitoring and assessment plans.

The authorized officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining, through assessment or monitoring by experienced professionals and interdisciplinary teams, that a standard is not being achieved and that livestock are a significant contributing factor to the failure to achieve the standards and conform with the guidelines.

Standards for Rangeland Health

Standard 1 Watershed Function – Uplands

Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate and landform.

Rationale and Intent

This standard focuses on the basic physical functions of upland soils that support plant growth, the maintenance or development of plant populations and communities, and promote dependable flows of quality water from the watershed.

To achieve and sustain rangeland health, watersheds must function properly. Watersheds consist of three principle components: the uplands, riparian/wetland areas and the aquatic zone. This standard addresses the upland component of the watershed. When functioning properly, within its potential, a watershed captures, stores and safely releases the moisture associated with normal precipitation events (equal to or less than the 25 year, 5 hour event) that falls within its boundaries. Uplands make up the largest part of the watershed and are where most of the moisture received during precipitation events is captured and stored.

While all watersheds consist of similar components and processes, each is unique in its individual makeup. Each watershed displays its own pattern of landform and soil, its unique climate and weather patterns, and its own history of use and current condition. In directing management toward achieving this standard, it is essential to treat each unit of the landscape (soil, ecological site, and watershed) according to its own capability and how it fits with both smaller and larger units of the landscape. A set of potential indicators has been identified for which site-specific criteria will be used to determine if this standard is being met. The appropriate indicators to be used in determining attainment of the standard should be drawn from the following list.

Potential Indicators

Protection of the soil surface from raindrop impact; detention of overland flow; maintenance of infiltration and permeability, and protection of the soil surface from erosion, consistent with the potential/capability of the site, as evidenced by the following:

- Amount and distribution of plant cover (including forest canopy cover)
- Amount and distribution of plant litter
- Accumulation/incorporation of organic matter
- Amount and distribution of bare ground
- Amount and distribution of rock, stone, and gravel
- Plant composition and community structure
- Thickness and continuity of A horizon
- Character of micro-relief
- Presence and integrity of biotic crusts
- Root occupancy of the soil profile
- Biological activity (plant, animal, and insect)
- Absence of accelerated erosion and overland flow

Soil and plant conditions promote moisture storage as evidenced by:

- Amount and distribution of plant cover (including forest canopy cover)
- Amount and distribution of plant litter
- Plant composition and community structure
- Accumulation/incorporation of organic matter

Standard 2 Watershed Function - Riparian/Wetland Areas

Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Rationale and Intent

Riparian-wetland areas are grouped into two major categories: 1. lentic, or standing water systems such as lakes, ponds, seeps, bogs, and meadows; and 2. lotic, or moving water systems such as rivers, streams, and springs. Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and which under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Riparian areas commonly occupy the transition zone between the uplands and surface water bodies (the aquatic zone) or permanently saturated wetlands.

Properly functioning condition of riparian and wetland areas describes the degree of physical function of these components of the watershed. Their functionality is important to water quality in the capture and retention of sediment and debris, the detention and detoxification of pollutants, and in moderating seasonal extremes of water temperature. Properly functioning riparian areas and wetlands enhance the timing and duration of streamflow through dissipation of flood energy, improved bank storage, and ground water recharge. Properly functioning condition should not be confused with the Desired Plant Community (DPC) or the Desired Future Condition (DFC) since, in most cases, it is the precursor to these levels of resource condition and is required for their attainment.

A set of indicators has been identified for which site-specific criteria will be used to determine if this standard is being met. The criteria are based upon the potential (or upon the capability where potential cannot be achieved) of individual sites or land forms.

Potential Indicators

Hydrologic, vegetative, and erosional/depositional processes interact in supporting physical function, consistent with the potential or capability of the site, as evidenced by:

- Frequency of floodplain/wetland inundation;
- Plant composition, age class distribution, and community structure;
- Root mass;
- Point bars re-vegetating;
- Streambank/shoreline stability;
- Riparian area width;
- Sediment deposition;
- Active/stable beaver dams;
- Coarse/large woody debris;
- Upland watershed conditions;

- Frequency/duration of soil saturation; and
- Water table fluctuation.

Stream channel characteristics are appropriate for landscape position as evidenced by:

- Channel width/depth ratio;
- Channel sinuosity;
- Gradient;
- Rocks and coarse and/or large woody debris;
- Overhanging banks;
- Pool/riffle ratio;
- Pool size and frequency; and
- Stream embeddedness.

Standard 3 Ecological Processes

Healthy, productive and diverse plant and animal populations and communities appropriate to soil, climate and landform are supported by ecological processes of nutrient cycling, energy flow and the hydrologic cycle.

Rationale and Intent

This standard addresses the ecological processes of energy flow and nutrient cycling as influenced by existing and desired plant and animal communities without establishing the kinds, amounts, or proportions of plant and animal community compositions. While emphasis may be on native species, an ecological site may be capable of supporting a number of different native and introduced plant and animal populations and communities while meeting this standard. This standard also addresses the hydrologic cycle, which is essential for plant growth and appropriate levels of energy flow and nutrient cycling. Standards 1 and 2 address the watershed aspects of the hydrologic cycle.

With few exceptions, all life on earth is supported by the energy supplied by the sun and captured by plants in the process of photosynthesis. This energy enters the food chain when plants are consumed by insects and herbivores and passes upward through the food chain to the carnivores. Eventually, the energy reaches the decomposers and is released as the thermal output of decomposition or through oxidation.

The ability of plants to capture sunlight energy, to grow and develop, to play a role in soil development and watershed function, to provide habitat for wildlife and to support economic uses depends on the availability of nutrients and moisture. Nutrients necessary for plant growth are made available to plants through the decomposition and metabolization of organic matter by insects, bacteria, and fungi, the weathering of rocks and extraction from the atmosphere. Nutrients are transported through the soil by plant uptake, leaching and by rodent, insect and microbial activity. They follow cyclical patterns as they are used and reused by living organisms.

The ability of rangelands to supply resources and satisfy social and economic needs depends on the buildup and cycling of nutrients over time. Interrupting or slowing nutrient cycling can lead to site degradation, as these lands become increasingly deficient in the nutrients plants require.

Some plant communities, because of past use, frequent fire or other histories of extreme or continued disturbance, are incapable of meeting this standard. For example, shallow-rooted winter-annual grasses that completely dominate some sites do not fully occupy the potential rooting depth of some soils, thereby reducing nutrient cycling well below optimum levels. In addition, these plants have a relatively short growth period and thus capture less sunlight than more diverse plant communities. Plant communities like those cited in this example are considered to have crossed the threshold of recovery and often require great expense to be recovered. The cost of recovery must be weighed against the site's potential ecological/economic value in establishing treatment priorities.

The role of fire in natural ecosystems should be considered, whether it acts as a primary driver or only as one of many factors. It may play a significant role in both nutrient cycling and energy flows.

A set of indicators has been identified for which site-specific criteria will be used to determine if this standard is being met.

Potential Indicators

Photosynthesis is effectively occurring throughout the potential growing season, consistent with the potential/capability of the site, as evidenced by plant composition and community structure.

Nutrient cycling is occurring effectively, consistent with the potential/capability of the site, as evidenced by:

- Plant composition and community structure;
- Accumulation, distribution, incorporation of plant litter and organic matter into the soil;
- Animal community structure and composition;
- Root occupancy in the soil profile; and
- Biological activity including plant growth, herbivory, and rodent, insect, and microbial activity.

Standard 4 Water Quality

Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Rationale and Intent

The quality of the water yielded by a watershed is determined by the physical and chemical properties of the geology and soils unique to the watershed, the prevailing climate and weather patterns, current resource conditions, the uses to which the land is put and the quality of the management of those uses. Standards 1, 2, and 3 contribute to attaining this standard.

States are legally required to establish water quality standards and Federal land management agencies are to comply with those standards. In mixed ownership watersheds, agencies, like any other landowners, have limited influence on the quality of the water yielded by the watershed. The actions taken by the agency will contribute to meeting State water quality standards during the period that water crosses agency-administered holdings.

Potential Indicators

Water quality meets applicable water quality standards as evidenced by:

- Water temperature;
- Dissolved oxygen;
- Fecal coliform;
- Turbidity;
- pH;
- Populations of aquatic organisms; and
- Effects on beneficial uses (i.e., effects of management activities on beneficial uses as defined under the Clean Water Act and State implementing regulations).

Standard 5 Native, T&E, and Locally Important Species

Habitats support healthy, productive and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate and landform.

Rationale and Intent

Federal agencies are mandated to protect threatened and endangered species and will take appropriate action to avoid the listing of any species. This standard focuses on retaining and restoring native plant and animal (including fish) species, populations and communities (including threatened, endangered and other special status species and species of local importance). In meeting the standard, native plant communities and animal habitats would be spatially distributed across the landscape with a density and frequency of species suitable to ensure reproductive capability and sustainability. Plant populations and communities would exhibit a range of age classes necessary to sustain recruitment and mortality fluctuations.

Potential Indicators

Essential habitat elements for species, populations, and communities are present and available, consistent with the potential/capability of the landscape, as evidenced by:

- plant community composition, age class distribution, productivity;
- animal community composition, productivity;
- habitat elements;
- spatial distribution of habitat;
- habitat connectivity; and
- population stability/resilience

Guidelines for Livestock Grazing Management

Guidelines for livestock grazing management offer guidance in achieving plan goals, meeting standards for rangeland health and fulfilling the fundamentals of rangeland health. Guidelines are applied in accordance with the capabilities of the resource in consultation, cooperation, and coordination with permittees/lessees and the interested public. Guidelines enable managers to adjust grazing management on public lands to meet current and anticipated climatic and biological conditions.

General Guidelines

1. Involve diverse interests in rangeland assessment, planning and monitoring.
2. Assessment and monitoring are essential to the management of rangelands, especially in areas where resource problems exist or issues arise. Monitoring should proceed using a qualitative method of assessment to identify critical, site-specific problems or issues using interdisciplinary teams of specialists, managers, and knowledgeable land users.

Once identified, critical, site-specific problems or issues should be targeted for more intensive, quantitative monitoring or investigation. Priority for monitoring and treatment should be given to those areas that are ecologically at-risk where benefits can be maximized given existing budgets and other resources.

Livestock Grazing Management

1. The season, timing, frequency, duration and intensity of livestock grazing use should be based on the physical and biological characteristics of the site and the management unit in order to:
 - a. Provide adequate cover (live plants, plant litter and residue) to promote infiltration, conserve soil moisture and to maintain soil stability.
 - b. Provide adequate cover and plant community structure to promote streambank stability, debris and sediment capture, floodwater energy dissipation in the riparian areas.
 - c. Promote soil surface conditions that support infiltration.
 - d. Avoid sub-surface soil compaction that retards the movement of water in the soil profile.
 - e. Help prevent the increase and spread of noxious weeds.
 - f. Maintain or restore diverse plant populations and communities that fully occupy the potential rooting volume of the soil
 - g. Maintain or restore plant communities that optimize the length of the photosynthetic period.
 - h. Promote soil and site conditions that provide the opportunity for the establishment of desirable plants
 - i. Protect or restore water quality.
 - j. Provide for the life cycle requirements, and maintain or restore the habitat elements of native (including T and E, special status, and locally important species) and desired plants and animals.
2. Grazing management plans should be tailored to site-specific conditions and plan objectives. Livestock grazing should be coordinated with the timing of precipitation, plant growth and plant form. Soil moisture, plant growth stage and the timing of peak stream flows are key factors in determining when to graze. Response to different grazing strategies varies with differing ecological sites.
3. Grazing management systems should consider nutritional and her health requirements of the livestock in the system.
4. Integrate grazing management systems into the year-round management strategy and resources of the permittee(s) or lessee(s). Consider the use of collaborative approaches (e.g., Coordinated Resource Management, Working Groups) in the integration.
5. Competition for forage and browse between livestock, big game animals, and wild horses must be considered in designing and implementing a grazing plan.
6. Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity.
7. Range improvements practices should be prioritized to promotes rehabilitation and resolve grazing concerns on transitory grazing land.
8. The potential for conflict between grazing use on public land and adjoining land uses must be considered in the design and implementation of the grazing management plan.

Facilitating the Management of Livestock Grazing

1. The uses of practices to facilitate the implementation of grazing systems should consider the kind and class of animals managed, indigenous wildlife, wild horses, the terrain and the availability of water. Practices such as fencing, herding, water development, and the placement of salt and supplements are used where appropriate to:
 - a. Provide adequate cover (live plants, plant litter and residue) to promote infiltration, conserve soil moisture and to maintain soil stability.
 - b. Encourage a uniform level of proper grazing use throughout the grazing unit;
 - c. Avoid unwanted or damaging concentrations of livestock on streambank, in riparian areas and other sensitive areas such as highly erodible soils, unique wildlife habitat, and plant communities and
 - d. Protect water quality.
2. Roads used to facilitate livestock grazing are constructed and maintained in a manner that minimized the effects on landscape hydrology; concentration of overland flow, erosion and sediment transport are prevented; and subsurface flows are retained.

Accelerating Rangeland Recovery

1. Upland treatments that alter the vegetative composition of a site, like prescribed burning, juniper management and seedings or plants must be based on the potential of the site and should:
2. Retain or promote infiltration, permeability, and soil moisture storage
 - a. Contribute to nutrient cycling and energy flow.
 - b. Protect water quality
 - c. Help prevent the increase and spread of noxious weeds
 - d. Contribute to the diversity of plant communities and plant community composition and structure
 - e. Support the conservation of T&E, other special status species and species of local importance
 - f. Be followed up with grazing management and other treatments that extend the life of the treatments and address the cause of the original treatment need.
 - g. Seedings and plantings of non-native vegetation should only be used in those cases where native species are not available in sufficient quantities, native species are incapable of maintaining or achieving the Standards; or where non-native species are essential to the protection of the functional integrity of the site.
3. Structural and vegetative treatments and animal introductions in riparian and wetland areas must be compatible with the capability of the site, including the systems hydrologic regime, and contribute to the maintenance or restoration of properly functioning condition.

Drought Management Policies

With drought conditions and issues, the principal focus of the Bureau of Land Management’s actions is to maintain the long-term health and productivity of the Nation’s rangelands with awareness to maintain a balance to those who rely on public lands for their livelihood.

Pre-Season

Preferable four or months before turn out, but a minimum of one month prior to turn out (or 2 weeks if authorized use is year round).

Inform grazing permittee and lessees, in writing, about current and projected drought conditions. Outline potential responsive management actions the BLM may take that would affect their use of public lands for grazing in the coming grazing season. Actively engage and encourage operators to communicate and coordinate identifying and implementing appropriately responsive grazing management adjustments.

Inform permittee of suggested adjustments to grazing use, as necessary, which may include reducing livestock numbers, shortening the season of use, altering pasture move dates, changing pasture rotations, authorizing water hauling, allowing use in vacant allotments.

Line officers have the option to implement needed changes through a formal agreement between the BLM and grazing operator (which is recommended to be implemented by decision) that specifies the drought-related grazing adjustments (43 CFR 4110.3-3 (a)), or by temporarily suspending or otherwise modifying use via a decision that may be put into immediate effect, if necessary (43 CFR 4113.3-2 (a) and 3-3 (b)). Be sure to include the intended duration of the drought-related grazing adjustment with rationale.

Issuing a grazing decision to implement an agreement for changes in use provides for administrative finality of the approval of actions that will occur under the agreement. Issuing a grazing agreement where agreement cannot be reached must be preceded by a reasonable attempt at consultation, cooperation, and coordination with affected grazing operators, the state having lands or responsible for managing resources in the affected area and the interested public.

Mid-Season

Evaluate on-the-ground resource conditions to determine the effects and appropriateness of continued grazing by all users. Continue to interact with affected livestock permittees and lessees to refine livestock grazing management practices as needed. Communicate to permittees or lessees in advance the conditions or circumstances that would prompt further livestock management adjustments or modifications.

During multiple-year drought cycles consult with the agency to determine if temporary reductions of ungulate populations are appropriate to provide for healthy long-term habitats.

Late-Season

Notify permit or lease holder they must move or remove livestock within a designated period, if adverse impacts to resources attributable to livestock grazing are occurring despite the drought response actions implemented.

Regulation 43 CFR 4130.8-2(b) authorizes the BLM to refund grazing fees if previously approved grazing use is not made due to drought conditions.

Coordinate with State Fish and Wildlife Agencies on drought response actions and potential effects to fish and wildlife pursuant to state-level Memorandums of Understanding with the BLM.

Coordinate and consult with the U.S. Fish and Wildlife Service and National Marine Fisheries Service on drought response actions and potential effects to Federally-listed fish and wildlife pursuant to section 7 of the Endangered Species Act.

References

- USDI BLM. 1989. BLM Manual Handbook 1741-1 – Fencing. Available at BLM district offices.
- USDI BLM. 1990. BLM Manual Handbook 1741-2 – Water Developments. Available at BLM district offices.