CLIFTON RANGER DISTRICT
APACHE/SITGREAVES NATIONAL FOREST
ANNUAL OPERATING INSTRUCTIONS (AOI)

Alma Mesa Allotment

[redacted]

2020-2021

I. PERMITTED USE:

The following table illustrates the number of livestock and season of use permitted on the Alma Mesa Allotment as per Term Grazing **Permit # 03010335** issued [redacted] on December 16, 2019.

KIND	CLASS	NUMBERS	AUM	SEASON OF USE
Cattle	Cow/Calf	456	5472	03/01 – 02/28
Horse	Horse/Mule	12	173	03/01 – 02/28

II. PERMITTED USE:

The following table illustrates the number of livestock and season of use permitted on the Alma Mesa Allotment as per Term Grazing **Permit # 03010336** issued to [redacted] December 16, 2019.

KIND	CLASS	NUMBERS	AUM	SEASON OF USE
Cattle	Cow/Calf	226	2712	03/01 – 02/28
Horse	Horse/Mule	6	86	03/01 – 02/28

III. AUTHORIZED USE:

The following numbers and classes of livestock are authorized to graze on the Alma Mesa Allotment this year.

KIND	CLASS	NUMBERS	AUM	SEASON OF USE
Cattle	Cow/Calf	Spur Ranch – 294 Spur Ranch Cattle Co LLC -145	5268	03/01/20 - 02/28/2021
Cattle	Bulls	Spur Ranch LLC -20 Spur Ranch Cattle Co LLC - 10	475	03/01/20 - 02/28/2021
Horse/Mule	Mature	Spur Ranch – 12 Spur Ranch Cattle Co- 6	259	03/01/20 - 02/28/2021

IV. ROTATION SCHEDULE: (Livestock use is authorized as follows in the pasture rotation schedule. Deviations from this must be made in advance and amended in the AOI.

Actual dates may vary (+ or – 5 days) dependent on utilization levels, range conditions and time required moving livestock.

PASTURE	NUMBER	SEASON OF USE	GRAZING INTENSITY	KEY AREA	KEY SPP
NM North	96CC	03/01/20-05/01/20	Conservative, 30-40%	C3, C2	BOHI, BOCU
NM South	40CC 20 Bull	03/01/20-05/01/20	Conservative, 30-40%	P5, C1, P7, P16	BOCU, BOHI,

Alma Mesa	60	03/01/20-05/01/20	Conservative, 30-40%	C6, C9	BOGR
Maple Charlie Moore	196	05/01/20-07/15/20	Conservative, 30-40%	P14, P15	TBD
Bear Valley*	168	03/01/20-04/30/20	Conservative, 30-40% *0-30%	C10, C11, P6 C12, C13	TBD
Morgan Traps	2 horses	03/01/20-02/28/21	Conservative, 30-40%		
Traps-Banjo, Beaver, Cradle, Mesa, Antelope	150 C 15 Bulls	10/15/20-12/31/20	Conservative, 30-40%		
Traps – Stateline North & South and West	100 CC 12 Bull	10/01/20-12/31/20	Conservative, 30-40%	C5	BOGR
NM North	50 CC 5 Bull	10/15/20-12/31/20	Conservative, 30-40%	C3, C2	BOHI, BOCU
NM North	110 CC	01/01/21-02/28/21	Conservative, 30-40%	C3, C2	BOHI, BOCU
NM South	33 CC 32 Bulls	01/01/21-02/28/21	Conservative, 30-40%	P5, C1, P7, P16	BOHI, BOCU
Alma Mesa	60 CC	01/01/21-02/28/21	Conservative, 30-40%	C6, C9	BOGR
Maple Charlie Moore	97	01/01/21-02/28/21	Conservative, 30-40%	P14, P15	TBD
Bear Valley*	139	11/1/20 – 02/28/21	31 – 40% Conservative *0-30%	C10M C11M P6, C12, C13	TBD

*Note- Management of salt & mineral near Dutch Blue Creek will be no closer than 1 mile.

V. ALLOWABLE USE STANDARDS (Grazing Intensity) See Appendix for management strategies.

Allowable use of forage is based on the amount and kind of forage on the allotment, plant needs, range condition, trend, and grazing management strategy. Duration, frequency, and timing may be manipulated within the grazing schedule to meet allowable use standards. Grazing intensity may be described in terms herbage removed during the grazing and/or growing period, or as a utilization level at the end of the growing period. Removal of leaf material, when the plant is actively growing can affect root growth which in turn affects future leaf growth. Sufficient leaf area is essential to support plant functions through photosynthesis.

The allowable use levels for this allotment are established for key areas and key species by pasture for the time period livestock are in a pasture. The use on key species in key areas should be used as an indicator to the length of the grazing period allowed in each pasture. The establishment of the utilization standards is consistent with 36 CFR 222 regulations, FSM 2210 and 2230, and FSH 2209.21.

For simplicity, key areas are generally considered as follows: 1) full capacity rangeland located on ridgetops/mesas within a ¼ mile from available water sources; 2) canyon bottoms/riparian areas with free flowing water or springs regardless of distance from water; 3) any area containing full capacity range with erosive soils and insufficient/marginal vegetative ground cover to protect the soil; and/or 4) areas containing critical habitat, whether occupied, suitable and unoccupied, or potentially suitable habitat, for threatened, endangered, or proposed species that are of concern to the Forest Service.

Key areas have been designated in cooperation with the Forest Service and the current or past permittee.

Grazing Intensity is discussed by Holechek and others (Holechek, Jerry L., Rex D. Pieper, and Carlton H. Herbel. 2004. Range Management, Principles & Practices. Prentice Hall, page 248):

Table 3. Qualitative characteristics of grazing intensity categories used to characterize New Mexico rangelands (Holechek & Galt, 6/00, Rangelands).

Qualitative Grazing Intensity Category	Use of Forage by Weight	Qualitative Indicators of Grazing Intensity

Light to non-use	0-30	Only choice plants (key species) and areas show use. There is no use of poor forage plants
Conservative	31-40	Choice forage plants (key species) have abundant seed stalks; Areas more than a mile from water show little use: About one third to one half primary forage plants show grazing on key areas.
Moderate	41-50	Most of accessible range show use; Key areas show patchy appearance with one half to two thirds of primary forage plants (key species) showing use; Grazing is noticeable 1-1½ miles from water
Heavy	51-60	Nearly all primary forage plants show grazing on key areas: Palatable shrubs show hedging: Key areas show a lack of seed stalks: Grazing is noticeable in areas over 1½ miles from water
Severe	61+	Key areas show a clipped or mowed appearance (no stubble ht.): Shrubs are severely hedged; There is evidence of livestock trailing to forage; Areas over 1½ miles from water lack stubble height.

Describing Grazing Intensity (FSH 2209.13 – GRAZING PERMIT ADMINISTRATION HANDBOOK CHAPTER 90 – RANGELAND MANAGEMENT DECISIONMAKING. **See Appendix for species specific stubble height.**

Grazing intensity may be described in terms herbage removed during the grazing and/or growing period, or as a utilization level at the end of the growing period. It is important to clearly define how intensity is being viewed and described. Removal of leaf material, when the plant is actively growing can affect root growth which in turn affects future leaf growth. Sufficient leaf area is essential to support plant functions through photosynthesis. Heavy to severe intensity or utilization can affect current plant development and growth, as well as growth during subsequent growing seasons.

VI. ADMINISTRATION

1. The permittee will record actual use as it occurs; including livestock numbers and dates your permitted livestock are in a pasture. This information will be reported at the next annual or semi-annual operating instruction (AOI) meeting.

2. Any change or deviation from this Annual Operating Instructions is to be coordinated and confirmed in advance with the District in an AOI amendment. Additionally, as per terms and conditions of the grazing permit, the permittee shall provide 5 days' notice of moving livestock on or off the allotment. Credit or refunds generated are based upon this documentation. If emergency conditions require making a change immediately, the permittee will notify the District as soon as practical.

3. Livestock remaining in pastures beyond the specified rotation date, that are allowed to drift between pastures, or grazing in rested pastures may be considered a violation of your Term Grazing Permit.

4. Livestock should be moved (before, with notification) and/or when forage utilization objectives have been met or within 1 week of planned rotation dates, unless changes have been confirmed with District Range personnel.

5. The District may spot check range improvements before the entry date to insure improvements are in a satisfactory condition. Livestock will not be allowed to enter pastures if assigned improvements are not maintained to proper standards. Livestock are not allowed to enter pastures if fences will not keep livestock where they are placed.

VII. SALT AND MINERAL BLOCK

Typically, salt or mineral blocks are not to be placed within a quarter mile of water or drainage bottoms. With District Ranger approval, salt may be placed closer than a quarter of a mile to water for specific purposes. Salt will be used to attract cattle to areas of a pasture typically not utilized and or for soil/range condition treatment purposes. Blocks may be removed by the District if found near water, over-utilized areas, meadow bottoms or roads. Feeding and/or supplements such as molasses are not authorized, unless on a case by case for specific purposes and approved by the District Ranger.

VIII. MONITORING

Monitoring and evaluation is an essential aspect of good rangeland management. Monitoring and evaluation can be described as the gathering of information so the manager knows what is happening to rangeland resources and why. The intent of monitoring and evaluation is to test the success of the management strategy and if needed, make adjustments. The following types of monitoring can be collected and will be used by the Forest Service for management decisions.

1. Forage Production
2. Forage Utilization/ Stubble Height measurements.
3. Photo Points
4. Condition of Improvements
5. Actual Use
6. Grazing Response Index
7. Precipitation.

IX. RANGE IMPROVEMENT CONSTRUCTION / MAINTENANCE

The permittee will maintain all range improvements that are assigned for maintenance on pages 11 – 14 of the Term Grazing Permit. Reconstruction or new improvements requires written authorization by the District Ranger through a Permit Modification. When improvements are completed the permittee will inform District Range personnel to schedule an inspection. Before using machinery to clean any pond within defined wildlife habitat, the permittee is required to give the District Office at least 45 days advance notice so that the tank can be inspected for threatened or endangered species. All work involving the use of heavy equipment will be accomplished only after prior approval of the District Ranger.

Current Year Improvement Scheduled		YEAR	2020-2021
Improvement Type / ID #	Completion Date	Description/Comments	Status Done /Date
		** See attached pages provided by permittee	

X. PROTECTION

The permittee, his agents and employees, when acting within the scope of their employment, and his contractors and subcontractors will protect the land and property of the United States, waived private land and other land under jurisdiction of the Forest Service covered by and used in conjunction with this permit. Protection will include taking all reasonable precautions to prevent, make diligent efforts to suppress and report promptly all fires on or endangering such land and property. During periods of high fire danger, branding fires will be allowed by permit only.

XI. ALLOTMENT INSPECTIONS

Forest personnel may conduct periodic brief inspections of pastures within the allotment at any time to verify actual use, improvement conditions, or other non-range related activity. The permittee will be notified and invited to participate on extended (3-5 days) inspections.

Planned inspections for Grazing Year 2020-2021:

Pasture	When	Location

Notes:

XII. PERMIT CONDITIONS

This Annual Operating Instructions is hereby made a part of the Term Grazing Permit as provided for in Part 2, Section 8(a). It complies with the standards and guidelines found in the Forest Plan.

Failure to comply with any of the terms and conditions specified in Parts 1, 2, and 3 of your Term Grazing Permit may result in suspension or cancellation, in whole or in part, after written notice. This is found in Part 1, Section 3, of your permit.

[redacted]

PERMITTEE

12/16/19

DATE

Ed Hall

DISTRICT RANGER

12/16/19

DATE

XIII. APPENDIX

Qualitative Grazing Intensity Category	Use of Forage by Weight	Stubble Height Guide					
		Blue Grama	Dropseed	Threeawn	Tobosa	Sacaton	Sideoats Grama
	(%)	(inches)					
Light to moderate use	0–30	5+	9+	5+	9+	16+	9+
Conservative	31–40	4–5	8–9	4–5	7–9	14–16	8–9
Moderate	41–50	3–4	6–8	3–4	5–7	12–14	6–8
Heavy	51–60	2–3	4–6	2–3	3–5	10–12	4–6
Severe	>60	<2	<4	<2	<3	<10	<4

Qualitative Grazing Intensity Category	Use of Forage by Weight	Stubble Height Guide				
		Arizona Fescue	Western Wheatgrass	Intermediate Wheatgrass	Mutton grass & Kentucky Bluegrass	Mountain Muhly
	--- (%) ---	----------		(inches)		
Light to non-use	0–30	8+	7+	10+	5+	5+
Conservative	31–40	6–7	4–5	8–10	4–5	4–5
Moderate	41–50	5–6	3–4	6–8	3–4	3–4
Heavy	51–60	4–5	2–3	4–6	2–3	2–3
Severe	>60	<4	<2	<4	<2	<2

SOILS:
Where "impaired soils" exist and soil loss exceeds the tolerance soil loss; potential capacity (PC), those acres will not be counted toward an estimated carrying capacity unless under intensive management. See FSH 2209.21, Sec 21, 23 and 53.3-1e for details. Additionally, where we find "unstable soils" and natural soil loss exceeds tolerance; no capacity (NC) and knowing these soils cannot be used without causing long term resource damage, these acers cannot be counted toward potential carrying capacity either. See FSH 2209.21, Sec 21, 23.3.

DISTANCE TO WATER:
Reduction in Cattle Grazing Capacity for Distance to Water

Miles	Grazing Capacity Reduction
0-1	None
1-2	50%
2 - <	Considered 100% Ungrazable

STEEPNESS OF SLOPE:
Reduction in Cattle Grazing Capacity for Different Percentage of Slope

Percent Slope	Grazing Capacity Reduction
1 – 10%	None
11 – 30%	30%
31 – 60%	60%
60% and <	Considered 100% Ungrazable

LIVESTOCK FORAGE CONSUMPTION:
Daily and Monthly Forage Intake (Dry Matter Equivalent) Needs of Dry Cow and Cow/Calf Pair

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Days/mo	31	29	31	30	31	30	31	31	30	31	30	31
lbs/day dry	17	17	17	17	17	17	17	17	17	17	17	17
lbs/mo dry	527	493	527	510	527	510	527	527	510	527	510	527
lbs/day c/c				29	29	29	29	29	29	29		
lbs/mo c/c	527	493	527	870	899	870	899	899	870	899	510	527

PROPER FORAGE USE AND RANGE CONDITION:
Proper forage use is the degree of grazing use plus trampling and spoilage that individual species can sustain while maintaining vigor, forage production and reproductive capacity of the plant. Allowable use is determined from proper use and is the level of grazing use that can be permitted on an area when all influencing factors are considered. Allowable use values are a tool to improve range health and plant vigor.

Range condition is based upon the latest range analysis data. Much of what we have is old with regard to the large amounts of data. However, we are actively collecting monitoring data to determine a comparison to the older data. Range

condition classifications will be determined on a site by site basis during field reviews to check the on-the-ground forage production estimates.

Notes for next year-

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Alma Mesa Allotment Projects[1]

Maple Charlie Moore

1. *Permanent Spur Ridge division fence to divide Maple Charlie Moore from Six Shooter.*
2. Charlie Moore Trap.
3. *Rebuild working facilities at CM Spring Line Shack.*
4. *Run water line from Charlie Moore spring storage tank to storage tank and drinker on north side of Beaver Canyon between CM Spring and Buzzard Tank.*
5. Juniper eradication from Sunflower Mesa to Spur Ridge on north side of Beaver Canyon.

Six Shooter

1. Clean all tanks: North Six Shooter, Six Shooter South Six Shooter.
2. *Water lot with Alma Mesa and West Trap. Pipeline from State Line Well. Add storage tank and drinker in water lot.*
3. Maintenance on Bedrock Corral and Open Flat Corral.

NM South

1. *Build water lot around big steel ring on Charlie Moore Mesa so it can water cattle in NM South, Maple Charlie Moore and Six Shooter.*
2. *Extend pipeline from small steel ring on CM Mesa to division fence with Beaver Trap.*
3. *Install storage tank and drinker on division fence between CM Mesa and Beaver Trap.*
4. Replace pipe and drinker in PB57, between two steel rings on CM Mesa.
5. Repair breached tanks south of Morgan Place.

Beaver Trap

See NM South

Morgan Traps

Add a dirt tank below Antelope Tank to spread cattle out.

NM North

1. Maintenance on road from Cradle Mesa to State Line. (Need USFS to tell Catron County this is okay to do.)
2. Clean Cradle Basin Tank.
3. Replace pipeline and drinkers on Cradle Mesa.
4. Add erosion control structures in Cradle Basin south east of Cradle Basin Tank.

[1] Entries in italics are authorized under NEPA decision.

State Line, Camp and West Traps

1. *Maintenance on road to Line Shack.*
2. Re-build corrals at Line Shack.
3. Maintenance/repairs/replace Line Shack.
4. Remove tin shed at Corrals. Replace with two containers.
5. *Add solar array for well at Line Shack, with solar and electric pumps in well.*
6. *Add solar array for storage tank pump at Line Shack to go to drinkers.*

Alma Mesa

1. Fence off south end for a breeding trap.
2. *Install water line to storage tank and drinker at northwest corner of North Trap. Once approved, extend pipeline to storage tank and drinker in north central part of pasture.*
3. *Install water line from storage tank on Cradle Mesa to storage tank and drinker in north central part of pasture.*
4. *Fence off northwest corner to keep cattle in Alma Mesa pasture.*

Bear Valley

1. Burn between Horse Mountain and Bear Mountain
2. Maintenance on Winter Cabin facilities
3. Maintenance on small corrals (Auger Peak, Yam Canyon, and Government Mesa).