

### ATTACHMENT 3: THRESHOLDS AND RESPONSES EXAMPLES

This section provides examples of how threshold and responses can be formulated and implemented within an allotment to allow for adaptive management of livestock grazing. These are by no means a comprehensive list and would not be applicable for all environments. The development of thresholds and responses will vary based on a multitude of factors including but not limited to: ecological site potential, livestock type, habitat objectives, land health assessment results, presence of riparian areas, vegetation composition, management objectives, etc. Additional guidance on developing thresholds and responses can be found in [IM-2018-023](#).

#### Example 1 Argenta:

The below example is from the Argenta Allotment Grazing Permit Renewal EA and can be found on ePlanning [here](#).

*To help make progress toward the goals and objectives prior to long-term monitoring, the following annual thresholds would be monitored during, and at the end of, each grazing season. Thresholds and responses would also meet the requirements for sage-grouse habitat management as directed in Instruction Memorandum (IM) 2018-23.*

*If thresholds are exceeded, appropriate responses would be implemented to mitigate resource impacts, and to ensure progress continues to be made toward the stated goals and objectives. However, exceedances of annual thresholds should never be the sole basis for changes in long-term allotment management, including stocking rates or seasons of use. Changes of this type would be based on more detailed monitoring and analysis of the effects of livestock management and would require a grazing decision.*

*Season of use in the pastures and use areas is based on either critical growing season deferment (May 1 to July 15), or hot season deferment (July 1 to September 15). Flexibility in the on and off dates of the use areas could be approved by the authorized officer in accordance with IM 2018- 109, if the change in the period of use remains outside of the season being deferred, and annual thresholds have not been met or exceeded.*

#### Annual Thresholds

*The following annual thresholds would be monitored at Designated Monitoring Areas (DMAs) during, and at the end of, each grazing season according to table 1 (Table 1 shows where each of the below indicators would be measured within the allotment. Could also just insert a map here).*

- In riparian and wetland areas, a minimum 4-inch stubble height will be maintained on all key herbaceous species.*
- In riparian and wetland areas, the allowable utilization is 35 percent for key woody browse species.*
- In riparian areas, the allowable bank alteration would be 35 percent.*
- In uplands, the allowable utilization is 40 percent for herbaceous key species and 40 percent for key shrub species.*

## Responses

The following responses would be implemented when an annual threshold is reached in an area due to livestock grazing.

- Promptly move livestock within five days to a part of the allotment that has not yet been grazed, and where livestock will not drift back to the area where the threshold was reached. This could occur within the same use area if feasible, or to another use area if at least one threshold has been met for the entire use area. If at least one threshold has been reached for all use areas available to the permittee, all livestock would be removed from the allotment within 10 days.
- In pastures, in occupied habitat, where post livestock removal use monitoring results in utilization levels that exceed allowable use levels and livestock are identified as a causal factor, reduce animal unit months (AUMs) grazed the following year accordingly. AUMs cannot be applied to another pasture that is already being used by livestock or is being purposefully rested.

## Adaptive Management

The following changes could be implemented as part of the analyzed thresholds and responses Alternative if it is determined that insufficient progress is being made toward the goals and objectives.

- Allow use of an area, but restrict riparian use with temporary fencing, water hauling, or herding.
- For riparian and wetland areas, amend the minimum stubble height on all key herbaceous species to 6 inches.
- For riparian and wetland areas, amend the allowable utilization of key woody browse species to 30 percent.
- For riparian and wetland areas, amend the allowable bank alteration to 25 percent.
- Change the season of use for affected areas when warranted, and where feasible given a permittee's overall operation.
- In pastures where post livestock removal use monitoring results in utilization levels that exceed allowable use levels and livestock are identified as a causal factor, reduce animal unit months (AUMs) grazed the following year accordingly. AUMs cannot be applied to another pasture that is already being used by livestock or is being purposefully rested.
- Reductions to exchange-of-use would occur prior to reductions of BLM active AUMs, if applicable.
- After three or more years of utilization data has been collected, reevaluate stocking rates to identify opportunities to redistribute AUMs by use area consistent with making progress with rangeland health standards.

## Example 2 Winecup:

The below example is from the Winecup Gamble Complex Grazing Permit Renewal EA. This is only a portion of the thresholds and responses and the full example can be found on ePlanning in [Appendix 6](#).

Despite the best efforts of the permittee and the BLM to plan and adjust within a season, there may be situations when target Grazing Response Index (GRI) scores are not achieved due to extreme/unplanned conditions such as large-scale fire events which inhibit livestock movement, failures in fencing caused by external stressors, drought conditions leading to less-than-expected forage production, or above average

and well-timed precipitation leading to abundant fuel-loads, among others. Table 17 describes specific within-year thresholds and responses and Table 18 outlines specific GRI-based thresholds and responses. These should be followed according to the adaptive management process as required.

Table 17. Within-year grazing management thresholds and responses.

Grazing Management Conditions	Threshold	Response
All	3-year GRI average achieved	move to new Use Area
All	inadequate feed/water (snow/drought)	movement to area with available feed/water (including private ground, when necessary)

Table 18. Grazing Management Condition Implementation Thresholds and Responses

Grazing Management Condition	"1-year threshold"		"3-year threshold"		"3-year critical threshold"	
	Threshold	Response	Threshold	Response	Threshold	Response
upland shrubs and native grasses are dominant	grazing year end GRI is below -1	mandatory full growing season rest in following year	rolling 3-year average drops below +2	mandatory full growing season rest in following year	rolling 3-year average drops below +1	mandatory full growing season rest in two subsequent years with at least one year being complete rest
upland shrubs with little understory	grazing year end GRI is below -1	mandatory full growing season rest in following year	rolling 3-year average drops below +2	mandatory full growing season rest in following year	rolling 3-year average drops below +1	mandatory full growing season rest in two subsequent years with at least one year being complete rest
winterfat plant community is present	Grazing year end GRI is below +3	mandatory full growing season rest in two subsequent years with at least one year being	n/a	n/a	Rolling 3-year average drops to +3 or below	mandatory full growing season rest in two subsequent years with at least one year
all conditions	heavy defoliation in dormant	mandatory complete growing season rest	n/a	n/a	n/a	n/a

	season grazing					
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As effectiveness monitoring data become available, thresholds and responses that can be utilized to adjust the management of the landscape as needed. These are described in Table 19. All responses below are contingent on a review of other factors that occurred over the period of consideration in addition to the livestock grazing management that may have affected the plant communities such as drought, aroga moth, fire, etc.

Table 19. Grazing Management Condition Effectiveness Monitoring Thresholds and Responses.

Grazing Management Condition	5-year effectiveness monitoring threshold	Response
upland shrubs with dominant native grasses	On-the-ground monitoring reveals a negative trend in DRPB cover in a Grazing Planning Group.	Adjust target GRI average +0.5 at the use area/all use areas under the same condition/Grazing Planning Group.
“	RDM exceeds 780 lbs/acre 3 years running	adjust target GRI average -0.5 at the use area/all use areas under the same condition
upland shrubs with little understory	5% of area from 2020 converts to less desirable state (not explained by fire or aroga moth)	adjust target GRI average +0.5 at the use area/ all use areas under the same condition
winterfat plant community is present	5% of area from 2020 converts to less desirable state (not explained by fire)	adjust target GRI average +0.5 at the use area/all use areas under the same condition
riparian/wet meadow obligates are/should be present	Riparian monitoring shows no improvement towards objectives	Re-evaluate all strategies and tools being used and formulate new riparian management plan with BLM

Example 3 Edwards:

The below example is from the Edwards Creek, Carson and Porter Canyon Allotments Grazing Permit Renewal EA. This is only a portion of the thresholds and responses and the full example can be found on ePlanning [here](#). Objectives for adaptive management are outlined in [Appendix O](#) with responses highlighted in [section 2.2.1.3](#) of the EA.

*The following is a list of actions that the permittee may use to manage livestock as appropriate to meet the annual livestock indicator/thresholds and monitoring objectives (Section 2.1.3 & Appendix O) and responses the permittee may use if a wildfire were to occur on the allotments.*

*If monitoring determines that the indicators/thresholds are exceeded within a pasture/use area during the current season of use then either AUMS, and/or duration of grazing within the pasture/use area will be reduced the following grazing season or seasons until the pasture/use areas shows improvement of the impacts defined by the monitoring. This reduction and/or implementation of actions as found under this section would occur and be discussed during the meeting for which the annual operating plan would*

*be completed. The reduction would be based on compliance and monitoring results and the amount exceeded over the thresholds from the prior year.*

- 1) Herding – Actively moving livestock to keep them in an area or move them away from an area.*
- 2) Salt/Supplement – Using salt/supplement to concentrate cattle use in a specific area, encouraging livestock away from other areas within pastures.*
- 3) Temporary Fencing – Placing temporary fencing around either treatment areas and areas that need to be rested (e.g. winterfat areas).*
- 4) Controlling water – Turning on and off wells/pipelines, temporarily fencing water.*
- 5) Stocking rate – Increase/decrease the number of livestock in a pasture and/or area.*
- 6) Timing – Grazing would be based on plant phenology within permit dates.*
- 7) Intensity – Depending on the objective, the intensity (utilization levels) may be specified or livestock may be moved based on the condition of the animals.*
- 8) Duration – The amount of time livestock are grazing within a pasture or area.*
- 9) Rest – Resting a pasture/area, providing alternative feed (pasture or hay) to livestock on private land in place of those pastures being rested.*