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FSH 2209.16 - ALLOTMENT MANAGEMENT HANDBOOK

CHAPTER 10 – ALLOTMENT MANAGEMENT AND ADMINISTRATION

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New Document	2209.16_10	68 Pages

Digest: Establishes new direction for the Allotment Management Handbook to provide assistance to Forest Officers and Authorized Officers in the management of rangelands, associated livestock grazing allotments, and other uses of rangelands.

Details how to manage grazing allotments and serves as a companion to the existing direction on how to administer Forest Service grazing permits (provided in the Grazing Permit Administration Handbook, FSH 2209.13).

10 - 10.17 - Describes the status of grazing allotments, and the different types (categories) of grazing allotments, as well as other rangelands not included in grazing allotments.

10.2 - 10.3 - Briefly discusses how allotments can be created, modified, vacated, or closed.

10.4 - Discusses how allotment boundaries can be modified.

Digest--Continued:

10.5 - 10.54 - Discusses the proper procedures for changing the status of allotments from one type to another. Describes certain allotment-related actions and procedures that can be problematic and should be avoided.

10.6 - Inserts the official Agency policy on third party permit buyouts and allotment closures. The policy details direction to authorized officers regarding the process that must be followed when closing an allotment. The direction clarifies that such status should rarely be assigned to an allotment and must NOT be assigned to only satisfy the request of an external third party or entity.

10.7 - Briefly explains the original livestock designations for grazing allotments.

11 - Explains in detail the proper timing, methods, and procedures for making rangeland capability and suitability determinations.

12.1 - 12.2 - Discusses how to determine priorities for allotment management, what is required to administer allotments to standard, and documenting the results of allotment administration.

12.3 - Explains allotment inspections for a) permit and permittee compliance, b) vegetation monitoring, and c) compliance with Land Management Plan (LMP) standards and guidelines.

12.4 - Discusses permittee communications.

13 - Details the relationship between management of permitted livestock use, excess livestock use, and unauthorized livestock use. Discusses cooperation with law enforcement personnel in identifying, managing, impounding, and disposing of unauthorized livestock.

14 - Discusses cooperation with other users and uses of rangelands, including outfitters and guides, other types of special use permits, and recreation special events.

15 - Adds a general discussion on managing allotment and rangeland improvements. Includes a section on the administration of "cow camps."

15.2 – Inserts information on where to find direction on water permits and water rights for surface water use.

15.3 - Inserts information on where to find direction on water permits and water rights for groundwater use.

Digest--Continued:

15.4 - 15.44 - Discusses permit modifications for rangeland improvements, standards and specifications, cooperation and cost-share with permit holders, and required maintenance of rangeland improvements.

15.45 - Discusses cooperation with other agencies in the construction, reconstruction, and maintenance of rangeland improvements.

15.46 - Discusses cooperation with adjacent private landowners in the construction, reconstruction, and maintenance of fences. Explains the situations and complex management of "fence-out" States and the requirements placed on adjacent landowners by State statutes.

15.46 - Lists and explains case law pertinent to Forest Service boundary fence policy. Includes a discussion on the timing of the court cases relative to when the National Grasslands came into existence and administration of those lands was transferred to the Forest Service. Describes that National Grasslands are complex due to intermingled land ownership and the need to cooperate with private landowners in the construction and maintenance of "boundary" fences.

15.5 - 15.6 - Discusses protection of improvements affected by other permits and contracts and emphasizes communication and cooperation with other employees before and during timber sale activities as well as road construction and road maintenance operations.

15.7 - Discusses water systems serving multiple users and multiple land ownerships.

15.9 - Section reserved for guidance on how to hold pre-plaining discussions to develop contingency plans with permittees that could be implemented should their allotment(s) be impacted by wildfire.

16 - Discusses situations involving conversions of kind, class, and weight of livestock. Inserts the Animal Use Conversion Table frequently found in regional range analysis handbooks.

17 - 17.15 - Includes a detailed discussion of forage reserves and forage reserve allotments.

17.2 - Addresses management of currently available forage resources, including general circumstances regarding non-use for resource protection or permittee convenience, and situations regarding temporary use of vacant allotments.

18 - 18.3 - Inserts a detailed discussion on the authority and responsibility for maintaining official 2210 allotment files and folders.

18.4 - Discusses allotment electronic records and data systems.

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18.5 - Discusses geographic information systems (GIS) requirements and management.

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10 - ALLOTMENT STATUS

An allotment is an area of National Forest System (NFS) land in which the Land Management Plan (LMP) determines it to contain lands capable and suitable for authorization of domestic livestock grazing. An environmental analysis and resulting decision establishes the allotment boundaries and authorize livestock use and occupancy. The allotment establishment decision may have occurred in the past, however allotment boundaries can be updated at anytime through an environmental analysis . Allotments may contain lands of other ownerships as well.

Most permitted livestock grazing use occurs within active allotments but may occur in forage reserve or vacant allotments on an incidental basis. Livestock grazing use on an allotment is nearly always authorized under a term grazing permit or, under specific circumstances, by issuance of a temporary grazing or livestock use permit.

However, other permitted uses may overlap in time and space with allotments and their associated permits or may occupy lands not covered by allotments. Wild horse and burro territories often overlap allotment boundaries or include NFS lands outside grazing allotments. Some other uses are covered by a special use permit and may be outside allotment boundaries. The discussion in this section pertains only to allotments as a specific land use designation. Allotments were previously called Rangeland Management Units (RMUs) in the Natural Resource Manager Infra database. The Rangeland Information Management System (RIMS) electronic database changes from RMUs to their common names of “allotment” and “pasture.”

10.1 - Types of Allotments

A vast majority of all NFS lands (greater than 70%) fall into some type of grazing allotment. Prior to the time the Forest Service was created as an Agency in 1905, and for several decades after, virtually every single acre of NFS land was actively grazed by domestic livestock. Nearly all the allotments previously grazed now fall into one of the following categories: a) active, b) combined, c) forage reserves, d) vacant, or e) closed.

10.11 - Active Allotments

Active allotments are those allotments where a previous or current LMP landscape-scale capability and suitability determination (see section 11 below) has identified lands within the allotment area to be capable and suitable for livestock grazing. Subsequent project-level National Environmental Policy Act (NEPA) environmental analyses and decisions authorize livestock use and occupancy under one or more types of term grazing permits.

There are still active allotments where one or both parameters have not been completed. The allotment may be active by fact of long-term historic establishment and use. The allotment may continue in active status pending completion of the LMP capability and suitability determination and the project-level environmental analysis and decision to authorize livestock grazing. Certain Acts of Congress have provided for the issuance of grazing permits with the same terms and

conditions as the expired or waived permit while the project-level environmental analysis are being completed. That provision is now provided at 43 U.S.C. §1752(c)(2). Once the requirements of the National Environmental Policy Act of 1969 (NEPA) have been satisfied (*see* FSH 1909 and chapter 90 of this handbook), following the analysis, a decision must be made which authorizes grazing on the allotment. The decision to graze and the environmental effects of grazing are analyzed at the allotment(s) scale. Analysis and subsequent decisions are not focused on the term grazing permit(s). They are focused on the rangeland vegetation conditions and related resources across an allotment or several allotments. Once the appropriate level of analysis is completed, the decision implements the authorized use of livestock grazing for the allotment(s).

In most cases, an active allotment will have one or more active term grazing permits associated with it. However, there may be periods of time when no grazing is occurring including, but not limited to, instances when:

1. a term grazing permit is in approved non-use status;

2. a term grazing permit has expired and has not yet been re-issued;

3. a waiver of term grazing permit privileges has been accepted but no term grazing permit has been issued to the preferred applicant;

4. a permit has been cancelled for noncompliance (NONC) and the capacity is now available;

5. a decision has been reached to grant available capacity, but no grazing permit has yet been issued; or

6. the permittee is involved in a bankruptcy or foreclosure action.

Occasionally, livestock use on the allotment may be authorized by annual temporary grazing or livestock use permits, normally for short periods of time (times can vary, but generally between one to a few years). In these circumstances, rarely would a special use permit be issued instead.

10.12 - Combined Allotments

Combined allotments are when one active allotment is combined with another one, and the first allotment ceases to exist except as an historical record. It no longer has separate allotment status, but it now becomes part of the bigger combined allotment with the acres of the two added together to show the enlarged size of the active allotment.

Normally, the allotment that was incorporated into the primary allotment will continue to show its name and number in the database, but as a combined allotment, and the primary allotment with its name and number will continue as the active allotment.

10.13 - Forage Reserve Allotments

Forage reserve allotments are those allotments where a project-level environmental analysis and decision has been made to authorize use of the allotment forage resources on a periodic, temporary, or otherwise short-term planned basis, under specified management terms and conditions, as a landscape basis tool to improve flexibility in responding to needs (such as drought, fire, restoration, etc.) or opportunities (vegetative manipulation for example).

Use and occupancy will normally not be authorized under a ten-year term grazing permit, but as an occasional temporary permit or a short-term modification to an existing term permit. The intent of a forage reserve is that use will be relatively short-term and will carry no preference for permit renewal; and, use and occupancy will be authorized to respond to specific resource needs or opportunities under specified management instructions.

Forage reserve allotments will normally be available for use by existing term permit holders from other allotments, rather than making the forage available for a non-term permit holder. The primary purpose of forage reserves is to improve management flexibility on NFS lands and allotments. See section 17 below for additional discussion.

Challenges to the management of forage reserve allotments include maintenance of rangeland improvements such as fences, spring developments, and livestock working facilities since no permittee may be assigned the maintenance responsibility when the forage reserve is not being used. Additionally, monitoring of forage reserves might take time away from active allotment monitoring.

10.14 - Vacant Allotments

Vacant allotments are allotments where no term grazing permit currently exists; however, temporary permits may occasionally be authorized. There may be several reasons why active allotments have become vacant, such as recreation conflicts, economic viability, tribal requests, seasonal or topographic restrictions, or Endangered Species Act (ESA) or other wildlife conflicts. In many cases, due to other higher priorities, including completing environmental analysis and decisions on active allotments first, no project level environmental analysis and decision has been made regarding authorization of livestock on vacant allotments. In some cases, the structural range improvements on the vacant allotment have fallen into disrepair from lack of use and maintenance, making it more difficult or expensive to restock the allotment.

If an administrative or project-level environmental analysis and decision has identified that livestock may be authorized under term grazing permit at some future point, the allotment will remain classified as vacant until such time as a term permit or annual authorization will be issued, then the allotment status should be changed to a forage reserve or an active allotment in the database.

10.15 - Closed Allotments

Closed allotments are those allotments that were formerly designated as active or as one of the other categories, but for which a recent decision has been made through the environmental analysis process to no longer make it available for use and occupancy by permitted livestock. The land area retains its allotment status in the database for historical tracking purposes.

In the past, authorized officers have occasionally made decisions to administratively close one or more of the allotments on their unit. Current policy dictates that decisions to close one or more allotments shall NOT be made administratively, and only rarely through individual allotment environmental analysis and decisions (see sections 10.54 and 10.6 below).

The decision to close an allotment could affect other resources and likely will affect adjacent allotment permittees by requiring them to maintain additional fences for allotment management. The decision may also affect holders of other permits such as certain types of special use permits. Some improvements might need to be removed.

A decision to close an allotment does not preclude a future environmental analysis and decision to open the area in whole or in part to livestock use and occupancy, or to create a new allotment occupying all or part of the previously closed area. This situation may occur when LMP management area boundaries change with changing management constraints. If the LMP closed the allotment(s), then a proposal to reauthorize grazing would require a new environmental analysis. The workload required for a LMP non-significant amendment is a compelling reason to avoid closing an allotment in a LMP decision.

NOTE: There are instances where congressional action is taken to create special areas. This includes areas such as wild and scenic rivers for example. In rare instances, the congressional actions also include closing these areas to future livestock grazing. Grazing would not be allowed within these areas unless the required process and subsequent actions are completed that amend the enabling law in manner that once again provides for livestock grazing to be an allowable or even needed use of the area.

10.16 - Wild Horse and Burro Territories

Wild horse and burro territories are described and managed under FSM 2260. Territories may overlap any of the types of grazing allotments, but they are not classified as allotments and are not entered in the RIMS database as allotments.

Management can become very complex and controversial when wild horse and burro territories and grazing allotment boundaries overlap.

10.17 - Other Non-Allotment Rangelands

The NFS lands have many areas of rangelands that do not carry an allotment designation. These areas provide forage and habitat for a variety of wildlife species, as well as providing a wide range of recreational, water, scenic, and other uses and values.

Rangelands that do not carry an allotment designation may be authorized for use and occupancy by livestock under a variety of scenarios. One scenario may be that the area may be used by recreational pack and saddle stock. Normally this will not require a special use permit, except for organized groups. See FSM 2720 or FSH 2709.14 chapter 50 for details. This would also be the case if the area is authorized for use and occupancy by an outfitter-guide (e.g. pack and saddle stock) under special use permit (*see* FSH 2709.14 chapter 50). If the special use permit is issued that provides for some form of livestock occupancy, use, and/or grazing, it should include appropriate use restrictions to comply with resource management requirements.

A decision may be made to use livestock as a tool outside active allotments or in areas not designated as any type of allotment in order to accomplish vegetation management objectives, meet other resource needs, or for research purposes. While this use can be authorized under a Temporary Grazing or Livestock Use Permit (see FSH 2209.13 chapter 30), depending on the circumstances, it may be authorized under an LMP-compliant contract, purchase order, or other appropriate authorization instead.

10.2 - Creating, Modifying, Vacating, or Closing Allotments

In the past, various LMPs have made decisions to close, modify, create or change status of allotments, and in some cases to either create or change allotment status. Most of these decisions for creating, modifying, or changing allotment status were not appropriate or necessary at the LMP level. The LMP level determines whether lands are capable or suitable for grazing, and site-specific environmental analysis and decisions create, modify, and vacate allotments.

Only the decision to close an allotment should be made at the LMP level in order to analyze the effects of the closure across the entire planning area and provide the opportunity for the general public to comment on such a landscape-level proposal.

Decisions to close one or more allotments shall NOT be made administratively, and only rarely through individual allotment environmental analysis and decisions (see sections 10.54 and 10.6 below).

Decisions to create, modify, or vacate allotments are to be made at the project-level environmental analysis and resultant decision, or by certain administrative decisions.

In the eastern regions, some allotments have been vacant for 5 years or more due to market conditions because type conversions to forest have occurred. Typically, allotments should be maintained in vacant status rather than closed by LMP decision.
LMPs develop plan components consisting of desired conditions, objectives, standards, and guidelines, as defined in Forest Service planning regulations at 36 CFR 219.7. Goals may also be developed as other plan content. Forest Service planning regulations further define management areas or geographic area prescriptions, and the need for either or both, and must establish plan-level monitoring requirements. These plan components are later incorporated in project-level or allotment-level analysis and planning decisions.

Allotment status decisions are appropriately made during the project-level environmental analysis and decision, or at the administrative decision level.

10.3 - Creating a New Allotment

New allotments are most often created if a land exchange or acquisition adds adjacent lands to the NFS. In such cases, the holder of the grazing permit on those adjacent lands prior to exchange has the priority for issuance of a Forest Service permit on the newly acquired lands.

New allotments – or more likely, new pastures – may be created if an existing permittee purchases or acquires a long-term lease on adjacent private lands (such as timber companies, mining ventures, large absentee landowners, State game and fish agency lands, State lands, or partnership entities such as Rocky Mountain Elk Foundation or The Nature Conservancy).

Another example of when creation of a new allotment might be considered is when existing permittees in a community allotment request division of the active allotment. Requests should rarely be approved when the intent of the requesting permittees is based solely on being able to run their herds separately, when doing so would impair or eliminate opportunities for grazing deferment or rotation, or if the request would result in the need to construct additional fencing or water developments to support grazing within the requested new allotment(s).

10.4 - Modifying Allotment Boundaries

Re-alignment of boundaries between active allotments is an administrative decision, documented in writing by the authorized officer, if:

1. All involved allotments are supported by current project level environmental analysis and decisions or no resource concerns are identified in either allotment as a result of changing boundaries;

2. The re-alignment will not reduce permitted numbers or seasons, or all parties are in agreement with any proposed changes;

3. All permit holders involved have stated in writing they agree with the action (which may include re-assignment of structural improvement maintenance responsibilities); and

4. Any change in fencing would not require removal of existing fences off the property boundary lines.

If all permittees are not in agreement with a proposal to realign allotment boundaries, an appropriate level environmental analysis may need to be completed prior to making the adjustments, thereby giving affected permit holders the opportunity to object, except when:

1. adjustments to fence locations in areas involved are minor and there are no anticipated detrimental effects;

2. the boundary is simply a line on the map that has little to no bearing or effect on actual management on the ground; or

3. the boundaries (natural or constructed) have been rendered ineffective due to timber removal, fire, or other natural disasters.

Unlike closing grazing allotments, which should *not* be done administratively, modifying vacant allotment boundaries to combine two or more vacant allotments into one larger allotment can be done administratively with appropriate documentation of the rationale and decision, although it may be prudent to maintain each of them separately for the historical records.

All or parts of vacant allotments may be analyzed to be included into active allotments to resolve resource concerns or improve management through creation of additional pastures or herd areas, etc. This is best done as part of a larger landscape or project-level environmental analysis and decision in order to better understand the options available and to evaluate the opportunities and consequences of such a decision.

Once analyzed, all or any part of a vacant allotment is administratively added to the forage reserve or active allotment, and all acreage totals are changed in the electronic database. The GIS layer also needs to be updated to reflect the changes.

Through an environmental analysis and decision, the boundary of an active or forage reserve allotment could be modified to incorporate areas of NFS lands not currently within a designated allotment and would require:

1. A review of the LMP suitability determination, as appropriate, to see if the area contains a manageable quantity and spatial distribution of lands suitable for grazing by the kind of livestock;

2. A determination that there are no LMP or other over-riding decisions that would preclude authorization of livestock; and

3. A project-level environmental analysis and decision (subject to objections in 36 CFR §218) to authorize the use and occupancy by livestock on the NFS lands and other lands under Forest Service control. .

10.5 - Modifying Allotment Status

10.51 - Changing Active Allotments to Forage Reserve or Vacant Allotments

The decision to change an active allotment to a forage reserve, or to a vacant allotment, may occur as a result of a site-specific environmental analysis. Unlike closing grazing allotments, which should not be done administratively, changing an active allotment to a forage reserve, or to a vacant allotment can also be an administrative decision. Poor market conditions or low grazing demand may result in active allotments becoming vacant, especially in the eastern forests.

The decision to change active allotment status may occur with cancellation of an existing term grazing permit or upon receipt of a waiver of term grazing permit without preference. In both cases, the grant process (FSH 2209.13, section 13.2) should be followed to determine if a change in allotment status is needed or warranted.

10.52 - Changing Vacant or Forage Reserve Allotments Back to Active Allotments

The decision to change a vacant allotment back to an active allotment may require a site-specific environmental analysis, if one is not already on file. Once this analysis has been completed and the decision made to authorize grazing, the grant process should be utilized to allocate the forage available. (FSH 2209.13, chapter 10, section 13.2)

The decision to change a forage reserve allotment back to active status will nearly always be an administrative decision. Since the allotment was likely analyzed when it was grazed annually instead of incidentally, nothing more may be needed than to reinitiate ESA consultation, when needed.

10.53 - Vacating All or Portions of an Allotment

Entire allotments, or portions thereof, may be vacated for any number of reasons (e.g., not planned to be grazed annually for the foreseeable future) including, but not limited to, the following scenarios:

1. On active allotments, the LMP suitability determination, as appropriate, has identified a manageable quantity and spatial distribution of lands suitable for livestock grazing. If other uses or values change, such as a mining operation, designation of a botanical area or other special interest area, or significant canopy closure has occurred under timber stands, conduct an updated project-level environmental analysis, or a section 18 review (sufficiency review) of the existing environmental analysis and decision, to further

evaluate whether term permitted livestock grazing should continue to be authorized on all or only portions of the allotment.

Portions of an allotment may be restricted from livestock grazing, while other areas in the allotment may remain open to grazing. The restricted portions may be due to resource issues and will be determined through monitoring. When portions of an allotment are restricted from use, the time period for grazing restrictions will be identified, as well as a monitoring schedule, and timeline for achievement of conditions for when livestock grazing will return to the area.

These restricted acres are still included as part of the allotment, but stocking rates will not be based on the forage availability of these areas.

In some cases, depending on the area of resource concern, the restricted area could be managed as a vacant pasture of the allotment or forage reserve pastures/area.

2. If changing uses and values affect a significant portion of the lands suitable for livestock grazing, use the LMP suitability determination as the basis for making an administrative decision to vacate the allotment in whole or in part.

3. On active allotments, if the project-level environmental analysis and decision pursuant to the required environmental analysis is to no longer authorize livestock grazing, then vacate it in accordance with the environmental analysis and decision. This may be a temporary situation. Do not close the allotment. To move the allotment back into active status, a new environmental analysis or section 18 review will likely be required.

4. If the project-level environmental analysis and decision is to eliminate permitted livestock use because the lands will be disposed of through land exchange, follow the direction in 36 CFR 222.4(a)(1). This direction requires at least two years notice to the permittee and working with the permittee to develop a schedule for phasing out livestock grazing on the allotment.

5. If the project-level environmental analysis and decision is to eliminate permitted livestock use and the lands involved will be devoted to another public use such as favoring bighorn sheep habitat over domestic sheep use, follow direction in 36 CFR 222.4(a)(1). This direction also requires at least two years notice to the permittee and working with the permittee to develop a schedule for phasing out livestock grazing on the allotment.

In accordance with national policy, vacate the active allotment, do not close it.

6. In other instances where the allotment will remain active, but the decision has been made that livestock grazing numbers or seasons need to be reduced, follow direction in 36 CFR 222.4(8) providing for a one-year written notification. The one-year time frame

will be construed as beginning on the date when the project-level environmental analysis and decision is received by certified mail by the affected permit holder, unless otherwise altered through an appeal and by a stay.

10.54 - Decisions to Close Grazing Allotments

Although not required by law or regulation, Agency policy states that an active allotment, forage reserve, or vacant allotment can ONLY be closed through an LMP or a project-level environmental analysis and decision. The analysis should also look at the effects on other resources (e.g. feral horses, ESA listed species, etc.).

The authority to close grazing allotments or to open previously closed allotments is not delegated to District Rangers (see FSM 2204).

Rarely should allotments be closed for any reason, because a decision to issue or not issue a grazing permit is easier to manage, than adding or removing an area designated at the forest planning level as available to livestock grazing. Direction to not close grazing allotments is based on the fact that doing so would limit future management options and preclude the Agency's ability to respond to changed conditions.

10.6 - Official Agency Policy on Third Party Permit Buyouts and Allotment Closures

The Chief's official Forest Service policy of April 3, 2014, regarding permit buyouts by external groups and requested closure of active grazing allotments states the following:

1. The sole responsibility and authority for management of National Forest System (NFS) lands is delegated to the Secretary of Agriculture and in turn to the Chief of the Forest Service. These responsibilities and authorities are non-delegable to private entities.

2. Management and use of NFS lands are to be determined in an open public process as defined by the National Forest Management Act (NFMA) of 1976, from which LMPs are produced. Determinations of suitability and overall use must be compliant with those goals, objectives, and standards and guidelines set forth in the LMP.

3. Removal of lands suitable and available for livestock use must be compliant with that forest's or grassland's LMP. Even if a grazing allotment is vacated, it will be retained as vacant, not closed. Allotment closure restricts future Agency management options in a world of changing conditions; allotment closures are NOT to be carried out at the request of any third party.

4. Grazing permits are the sole property of the Federal government. They bestow no right or title of interest other than to the United States (CFR 222.3(b)). Therefore, the Forest Service does not, and cannot, acknowledge any monetary value of grazing permits.

The Forest Service, through its authority delegated to its authorized officers, does not recognize the sale of or reimbursement for the relinquishment of a permit.
If a permittee waives their grazing privileges back to the Forest Service, there can be no guarantee or agreement, whether written or verbal, regarding waived grazing capacity allocation, based upon buyout agreements between permittees and conservation groups or other outside parties.

Financial arrangements made between third parties purporting to determine the status and management of NFS lands will not be acknowledged, sanctioned, or accepted by the Forest Service.

Grazing capacity allocations will be determined through the environmental analysis process, in consideration of rangeland vegetation, soil, wildlife, watershed, fisheries, water quality, and other resource conditions (36 CFR 222.2(c)).

Responses to requests for grazing permit buyouts by all authorized officers must be consistent with statutes, regulations, and Agency policy.

Buyouts that include permanent allotment retirement would impose restrictions on the Forest Service's management prerogatives. It would cause the Forest Service to relinquish future management options without knowing beforehand what the long-term effects would be on the resources.

10.7 - Allotment Designation as to Kind of Livestock

Allotments were historically designated as "Cattle and Horse" or "Sheep and Goat" allotments. The determination was based on what kind or kinds of livestock were acceptable for the topography, elevation, and vegetation on a given allotment. That classification is no longer as important, since the project-level environmental analysis and decision determines if an area should only be permitted to a specific kind or class of livestock or may provide for adaptive options of running various kinds of livestock (even cattle and sheep as dual use) as methods to respond to resource availability concerns and opportunities.

11 - RANGELAND CAPABILITY AND SUITABILITY DETERMINATION

Requirements to perform analysis of rangeland suitability are found in NFMA at 16 U.S.C. 1604(g)(2)(A). The implementing regulations are found at 36 CFR §§219.15 and 219.7. FSH 1909.12 at 13.32 discusses rangelands generally capable of producing forage for livestock grazing and wild ungulate use.

FSH 2209.13, chapter 90 discusses rangeland management planning and decisionmaking. Rangeland suitability analysis consists of the two subparts of capability and suitability as described below. This is a very important concept in rangeland and livestock management planning.

The requirement to determine rangeland capability and suitability was detailed in the 1982 Planning Rule last included in the Code of Federal Regulations at 36 CFR §219 (2000). The 2012 Planning Rule (36 CFR §219) doesn't require a new determination to be completed if circumstances have not changed; however, the previous determination should be reviewed and updated, or a new analysis completed, if needed.

The process to determine rangeland capability and suitability as set forth below in Section 11.1 and 11.2 remains the same and should be followed when LMP revision determines it is needed or desired. A representative example of the analysis process is detailed below.

11.1 - Determination of Rangeland Capability

The definition of rangeland capability is found in FSM 1905 and FSH 2209.13, chapter 90. Capability is defined as follows:

> *Capability:* The ecological capacity or inherent potential of an area characterized by the interrelationship of its physical elements, its climatic regime, and natural disturbances. Rangeland capability seldom varies by alternative during the allotment management planning process.

Capability is the initial step in the determination of suitability. It is portrayed as a separate step both for reasons of clarity and because the actual product of "capability" often has utility in planning beyond its role in the determination of suitability.

For LMP purposes, rangeland capability does not vary by alternative and is only determined once during the LMP process.

11.11 - Recommended Data for Determination of Rangeland Capability

The following constitutes the basic information needed to complete a capability assessment. At times not all of this information may be available or required. Where such information is not available in an electronic format, other similar data may be substituted.

1. Land Ownership (from the Land Status layer of GIS)

2. Soil Map Unit - from Terrestrial Ecological Unit Inventory (TEUI), Ecological Site Descriptions (ESD), or other soil inventory

3. Geology - optional -- from TEUI or other inventory

4. Optional - Potential plant community production - from TEUI, Common Vegetation Unit, Common Land Unit, or Integrated Resource Inventory (IRI)

5. Lakes, ponds, reservoirs, and wetlands - from Common Water Unit (CWU) of IRI or the National Hydrography Dataset

6. Rivers/Streams - from CWU of IRI or the National Hydrography Dataset

7. Riparian delineation information – from the Riparian Buffer Delineation Model (www.riparian.solutions)

8. Roads - from designated travel routes

9. Slopes - from Digital Elevation Models (DEM)

10. Optional - Distance to water from Common Water Unit and/or Range Structural Improvement layer.

11.12 - Recommended Process for Determination of Rangeland Capability

Use GIS to identify areas that meet the following criteria (it is not expected that all NFS units will have all of the following data sets available; use the best available data in making the determination and document what data sets are not available and what steps were taken to provide comparable data). If local changes are made to the values to be applied, document the rationale behind the changes:

1. Begin with all lands within the project area that are NFS lands.

2. Subtract soil types that are dominated by a large percentage of rock outcrop and rubbleland, loose granitic or highly erosive soils, very wet and boggy soils, and sites with high mass movement risk. Optional - to identify erosive areas, a geologic layer to identify active landslides, slumps, etc. may be used.

3. Subtract soil types that are not inherently capable of producing more than 200 pounds of forage/acre within their potential natural vommunity (such as badland outcrops, nutrient-poor soils, shallow soils, or alkali salt flats). If a figure other than the “200 pounds per acre” is used, document the rationale.

4. Subtract acres of lakes, reservoirs, or ponds, e.g. the area covered by water at the high water mark.

5. When buffering major rivers (Colorado, Mississippi, Missouri, Ohio, Rio Grande, or Snake River for example), use the National Riparian Area Dataset. Historically, this buffering was done by buffering the actual width (averaged for individual reaches) and subtracted.

6. When buffering perennial streams, the National Riparian Area Dataset can be used. Historically, this buffering was done by buffering the actual width of the water surface at the mean high water mark, or use an average width of three feet on either side of center line and subtract. The six foot width for perennial streams represents an average width for a stream's water surface and can be used as a unit-wide average for purposes of modeling.

7. Buffer NFS roads by eight feet on either side of center line and subtract. The 16-foot width for roads represents an average width for a road's surface and can be used as a unit-wide average for purposes of modeling. The road surface is not considered to be capable unless it has been obliterated and revegetated, in which case it will remain within the capable land base.

8. Subtract slopes meeting the following criteria:

a. Subtract slopes greater than 60% (not capable for either sheep or cattle). Keep track of capable acres for cattle and sheep separately (may also need to track separately for other kinds and classes of livestock such as bison, if needed). The 60% figure can be modified for each specific forest/grassland or geographic area to fit with local situations (with documented rationale).

b. From the above (a) capability calculations, subtract slopes greater than 40% (slopes of 41-60% are capable for sheep but not normally for cattle). The 40% figure can be modified for each specific forest/grassland or geographic area to fit with local situations (with documented rationale).

9. Consider subtracting areas that lack available water, or lack the potential to develop water, within approximately three miles of the center of the polygon for grasslands or one-two miles in mountainous rangelands. This figure can be modified for each specific forest/grassland or geographic area to fit with local situations (with documented rationale).

10. The remaining area is capable rangeland**.** The capable rangeland may be displayed as two separate map displays and acreage tables: one map/acreage table set displays capable polygons/acreage for cattle; and, a second set displays capable polygons/acreage for sheep if appropriate. Other displays may be used for other kinds of animals if needed.

Exhibit 01 provides an example of the results of applying the capability analysis across an entire planning unit.

11.12 - Exhibit 01

Acres of Land Determined as Capable for Livestock Use

Classification/Description	Acres Deducted	Running Totals
Total National Forest System Acres		1,356,000
Deductions for Non-Capable Acres:		
Rock outcrop, rubble land; loose granitic, highly erosive, or very wet soils	59,483	1,296,517
Soils/plant communities that at site potential inherently produce <200 pounds/acre	11,119	1,285,398
Lakes, reservoirs, and ponds	3,350	1,282,048
Major Rivers	1,124	1,280,924
Perennial Streams	3,350	1,277,574
Road beds (not restored/revegetated)	3,450	1,274,124
Slopes greater than 60%	54,670	1,219,454
Slopes between 41-60% (not capable for cattle)	166,926	1,052,528
Total capable for sheep grazing		1,219,454
Total capable for cattle grazing		1,052,528

11.2 - Determination of Rangeland Suitability

A description and reference for suitability is found in 36 CFR 219.7, FSM 1905, and FSH 2209.13, chapter 90, and is defined as follows:

> *Suitability:* The appropriateness of specific lands within a plan area to be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands need not be identified for every use or activity. Suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process (36 CFR 219.7). Rangeland suitability may vary by alternative in the analysis of the allotment or group of allotments.

Rangeland suitability can vary by alternative being considered in the LMP process. For this reason, suitability may need to be determined by alternative or grouping of similar alternatives.

11.21 - Recommended Data for Determination of Rangeland Suitability

The following constitutes the basic information needed to complete the suitability portion of the capability assessment. At times not all of this information may be available or required. Where

such information is not available in an electronic format, other similar data may be substituted.

1. Capability Evaluation as detailed above. Areas determined to be other than capable are, by default, not considered to be suitable.

2. Percent tree or unpalatable shrub canopy cover for NFS lands in the West (Regions 1-6) - from Field Sampled Vegetation (FSVeg) or from Common Vegetation Unit of IRI. For example, timber stands with canopy cover greater than 70% mIRay be considered unsuitable. For NFS lands in the East (Regions 8-9), historic range of variability or potential for forage production may be substituted.

3. Management Area Prescription/Allocation proposed for each alternative.

4. Areas closed to livestock grazing as might be proposed for each alternative.

5. Fenced Recreation Areas and/or Sites where livestock grazing is to be excluded, as might be proposed for each alternative.

6. Fenced cultural resource or other special management areas where livestock is excluded or is proposed to be excluded from livestock grazing, by alternative.

7. Administrative Sites where livestock grazing is, or is proposed to be, excluded during the life of the plan (except administrative pack and saddle pastures which would be considered to be suitable)
8. Special Use Sites where livestock grazing is determined to be incompatible with the purpose of the special use (summer homes, electronic sites, etc.). This determination may vary by alternative.

9. Permanent fenced closures so as to exclude livestock use during the life of the plan.

10. Road rights-of-way/easements (not including the actual roadbed as that is covered in the capability analysis) where the right-of-way is, or is proposed to be, fenced to exclude livestock grazing. Include actual or estimated area fenced.

11. Railroad rights-of-way/easements where such right of way is, or is proposed to be, fenced to exclude livestock grazing. Include actual area fenced or estimated.

12. Research Natural Areas (RNAs) where decisions have been made, or are proposed in the alternative, to exclude livestock.

13. Research facilities, municipal watersheds, or other special purpose areas where decisions have been made, or are proposed in the alternative, to exclude livestock.

14. Threatened or endangered (T/E) species habitat permanently excluded from livestock grazing or proposed in the alternative for exclusion through the life of the plan. Include T/E species habitat where determinations have been made that livestock grazing is incompatible with the viability of the habitat or species.

15. Minerals production areas (mills, mines, settling ponds, etc.) where livestock grazing is not compatible with the minerals activity for safety, or other, reasons.

11.22 - Recommended Process for Determination of Rangeland Suitability

To determine rangeland suitability, perform the following as a separate GIS analysis for each alternative or group of similar alternatives.

1. Start with the areas determined to be capable as determined in the capability evaluation above.

2. Subtract areas that currently have an overstory of tree canopy cover and/or unpalatable shrub canopy cover greater than 70% (note: local exceptions to the 70% figure may be determined to be appropriate for specific situations, such as aspen communities, provided that the rationale is documented), for NFS lands in the West (Regions 1-6). For NFS lands in the East (Regions 8-9), historic range of variability acres may be substituted.

a. Transitory range will normally be considered as a special short-term instance where suitability occurs because of the removal of the overstory vegetation (as by fire or timber harvest). However, since the long term site potential is normally a moderate to dense canopy with little understory production, and since these areas are normally dedicated to timber (and other resource) production, these areas are generally considered to be suitable for grazing only for the lifespan of the time that it takes for the canopy to once again close back to 60% or greater (approximately 20 years), and only if the costs or viability of adequately mitigating effects relative to livestock grazing on forest vegetation regeneration (which rarely, if ever, occurs) are acceptable.

b. Use harvest maps and records to determine if specific areas currently meet the suitable criteria and if they are expected to remain within that criteria for the life of the plan. If so, they are determined to be suitable. If the transitory site will become other than suitable during the life of the plan, either portray it as being other than suitable, or show it as being suitable only for the estimated time that it will continue to meet suitability definitions.

c. Optional: Certain vegetative types (such as some aspen communities) may be suitable for a given type of livestock in certain geographic areas and not in other areas. If appropriate, these vegetative communities may be subtracted out of the suitable acres as needed. Document the rationale for the decision.

3. Subtract areas that have a proposed management area prescription allocation that does not allow for livestock grazing (e.g., certain Research Natural Areas, experimental forests, municipal watersheds). Subtract only management area prescriptions that have proposed standards & guidelines that do not allow for livestock grazing management, or where decisions have previously been reached that livestock grazing is incompatible with the planned land management prescription and the proposed alternative would continue that incompatibility finding.

4. Subtract fenced recreation areas, developed recreation sites, administrative sites (except administrative pack and saddle stock pastures), minerals production sites, fenced cultural resource sites, permanent exclosures, and appropriate special use sites, where livestock use has been determined to be incompatible with the primary land use and/or where the alternative proposes to exclude livestock use.

5. Buffer primary roads (from designated travel routes). Primary roads are defined by the actual fenced area. Where a fence is known or proposed to exist, but the exact location is unknown, buffer by 100 feet on either side of the center line and subtract.

6. Buffer secondary/county roads by the actual fenced area. Where a fence is known or proposed to exist, but the exact location is unknown, buffer by 33 feet on either side of the center line and subtract to account for the area that is fenced along secondary/county roads. Only use when the road (or road segment) is fully excluded from livestock grazing on NFS lands. The road surface itself is not considered to be capable. The fenced area alongside the road is capable of growing harvestable forage, but is unsuitable for livestock grazing if decisions have or will be made that livestock grazing is incompatible with other objectives associated with the ROW/easement.

Road surfaces are taken out at the capability analysis level and fenced areas along roads are taken out at the suitability analysis level.

7. Buffer railroads by 100 feet on either side of center line or by the actual fenced area where a fence is known, or proposed, to exist and subtract.

8. Subtract areas that are closed to grazing. The reason for past or proposed closure or current lack of livestock grazing activity should be explained (e.g., lack of access, conflicts with wildlife, conflicts with recreation, etc.).

9. Subtract areas where decisions have been made that specific T/E or other at-risk species habitats need to be excluded.

10. Have interdisiplinary team specialists on the planning team identify any additional areas where conflicts occur between livestock grazing and other resources to the extent that the conflicts cannot be resolved or satisfactorily mitigated, and where the other resource values are proposed in the alternative to take precedence over livestock use. If the planning recommendation is that livestock use in these areas is incompatible, or the

conflicts are incapable of being resolved in a satisfactory manner, these lands will be designated as other than suitable for the specific alternative for this planning cycle. Clearly document the reason for the other than suitable determination.

11. The remaining area is Suitable Rangeland as determined at the LMP level**.** The suitable rangeland may be displayed as multiple map displays and acreage tables with one map/acreage table display for each alternative. Separate maps may be required for any or all alternatives for each kind of permitted livestock.

Exhibit 01 displays the results of applying the suitability analysis across the entire planning unit.

11.22 - Exhibit 01

Acres of Land Determined as Suitable for Livestock Use

Classification/Description	Acres Deducted	Running Total for Cattle	Running Total for Sheep
Total National Forest System Acres		1,356,000	1,356,000
Deductions for Non-Capable Acres	306,017	1,052,528	1,219,454
Deductions for Unsuitable Acres:			
Existing canopy cover >70% or historic range of variability acres	54,670	997,858	1,164,784
M.A. prescription does not provide for grazing (ex: Municipal Watershed)	63,485	934,373	1,101,299
Excluded recreation sites	641	933,732	1,100,658
Administrative Sites excluded from grazing (excepting admin horse pastures)	2,145	931,587	1,098,513
Minerals Production Sites	597	930,990	1,097,916
Fenced Cultural/Special Management Areas	1,515	929,475	1,096,401
Permanent Exclosures	281	929,194	1,096,120
Special Use Sites excluded from grazing	1,497	927,697	1,094,623
Road ROW – excluded from grazing	3,350	924,347	1,091,273
Railroad ROW – excluded from grazing	857	923,490	1,090,416
Areas not within allotments or areas closed to grazing by decision	3,595	919,895	1,086,821
TES habitat permanently excluded from grazing	1,256	918,639	1,085,565
Total Suitable acres for the LMP		918,639	1,085,565

11.3 - Land Management Plan (LMP) Suitability Determination

The combined “capability” and “suitability” analysis constitutes a suitability determination. This analysis is done separately for cattle and for sheep (and possibly for other kinds of livestock as needed) and for each alternative (or grouping of similar alternatives) being considered, as suitability may vary by alternative but capability will not.

The capability and suitability analysis and resultant suitability determination is not a decision to graze livestock on any specific area of land, nor is it a decision about or estimate of livestock grazing capacity. The capability/suitability analysis and suitability determination may or may

not provide supporting information for a decision to graze livestock on a specific area.

Any landscape area will contain areas that are capable and/or suitable as well as areas that are modeled as not capable and/or suitable. Since the LMP level suitability determination is based on a modeling process, and is dealing with a variety of complex landscapes, it is inevitable that this intermingling will occur on a land base of any significant size. Therefore, these suitability determinations are not intended to imply that livestock will be precluded from being found on lands that may be modeled as other than capable.

At the LMP level the suitability determination provides basic information regarding the potential of the land to produce resources and supply goods and services in a sustainable manner, as well as the appropriateness of using that land in a given manner. This information assists the interdisciplinary team and the authorized officer in evaluating alternatives and arriving at forest/grassland level decisions. It also helps in an analysis of alternative uses foregone.

Both capability and suitability may also have value when applied at the project specific level. At this level, capability (and occassionally suitability) analyses may be reviewed, updated, or made more site specific, if doing so will provide information useful to the decisions being made. For instance, rangelands identified as capable and suitable for domestic livestock grazing in the LMP (at the landscape scale) may include smaller inclusions (when viewed at a project level scale) that are not appropriate for domestic livestock grazing when analyzed at the site-specific level (e.g., some wetlands or some campgrounds). A more site-specific analysis at the allotment (or multi-allotment) scale may provide information useful in planning management of the given allotment(s).

Changes to suitability determinations may be made at the LMP level.

11.31 - Display of Rangeland Suitability Determinations in the LMP

A detailed description of the analysis process used in determining rangeland suitability, and the resulting acreages, must be included in the project record if the anaysis is conducted at the LMP level. This description needs to include adequate information to allow a reviewer to understand the steps and rationale that is behind the suitability determination. This description shall specify that the findings were done in an interdisciplinary manner, must specify rationale for specific findings, and document the rationale for changes to the process or local modifications. The bottom line is that a person not intimately familiar with the process must be able to track and understand why specific determinations and findings occurred. A summary of the results from this analysis is to be included in the Environmental Impacts chapter pertaining to rangeland management, with a reference to the appropriate project record file.

In the Environmental Impacts chapter, summarize the rangeland capability and suitability results and the suitability determination, providing charts or tables showing the breakdown of the forest or grassland by the capability, suitability, and the combined suitability determination steps.

Remember that capability is a one-time determination and does not change by alternative (although there may be a need to separate capability determinations for cattle and for sheep, and possibly for other species of animals). However, suitability is an alternative-specific (or grouping of similar alternatives) determination. The combined suitability determinations therefore will be derived for each alternative (or group of similar alternatives) and, in most cases, by cattle and by sheep.

A map showing the modeled suitable rangelands is suggested for each alternative, although it may be of a scale and size that it needs to be shown in geographic parts, and/or referenced in the appendices or analysis file. Include a table or graph showing the acres of capable and suitable rangeland as separate tables for cattle and for sheep, and as separate tables by alternative, if applicable.

In an appendix of the Final Environmental Impact Statement, in a narrative format, explain the steps taken in determining rangeland capability and suitability, and the data that was used.

Include a table showing the steps and acreages. The recommended format is shown in 11.31 Exhibit 01. This table may need to be prepared for each alternative.

11.31 - Exhibit 01

Summary of Suitability Determination in the LMP

Classification/Description	Acres Capable and Suitable
Total Suitable Determination Acres for Cattle grazing for this alternative	918,639
Total Suitable Determination Acres for Sheep grazing for this alternative	1,085,565

Based on the information displayed above, certain rangelands were determined to be suitable for livestock grazing, both cattle and sheep.

Exhibit 02 displays additional suitability deductions that vary for each alternative. Not all of these acres will be stocked, but all are considered available for livestock grazing by cattle.

11.31 - Exhibit 02

Summary of Acres of Land Determined to be Suitable for Land Management Plan Deteriminations, for Livestock Use (cattle) – by Alternative

	Alt. A	Alt. B	Alt. C
Acres presently suitable for cattle grazing	918,639	918,639	918,639
Management Area Prescriptions excluding grazing (for example, RNAs)	19,069	2,421	11,009
Acres Proposed for full or partial closure in this alternative	5,484	0	95,144
Total Environmentally Suitable Acres (cattle) for this alternative	894,086	916,218	812,486
Total Suitable Acres for Cattle Grazing	894,086	916,218	812,486

Exhibit 03 displays additional suitability deductions that vary for each alternative. Not all of these acres will be stocked, but all are considered available for livestock grazing by sheep.

11.31 - Exhibit 03

Summary of Acres of Land Determined to be Suitable for Land Management Plan Deteriminations, for Livestock Use (sheep) – by Alternative

	Alt. A	Alt. B	Alt. C
Acres presently suitable for sheep grazing	1,085,565	1,085,565	1,085,565
Management Area Prescriptions excluding grazing (for example, RNAs)	8,268	0	27,772
Acres Proposed for full or partial closure in this alternative	20,472	0	178,781
Total Environmentally Suitable Acres (sheep) for this alternative	1,056,825	1,085,565	879,012
Economically unsuitable for sheep	0	0	6,578
Total Suitable Acres for Sheep Grazing	1,056,825	1,085,565	872,434

12 - ALLOTMENT ADMINISTRATION

This section provides general guidance for planning priority work and documenting how LMP direction and the site-specific allotment analysis and decision will be applied and measured on each allotment.

The overall goal of allotment administration is to ensure that the following occurs on all active allotments:

1. Periodic adequate inspections and attention so that management is applied as specified in the project-level environmental analysis and decision, current AMP, and the Annual Operating Instructions (AOI),

2. Management of livestock that is in compliance with LMP standards and guidelines, allowable use levels, and terms and conditions of the grazing permit, and

3. Allotment evaluations to determine the effectiveness of management actions that are designed to adequately *meet or move toward* desired conditions in a timely manner (see FSH 2209.13 chapter 90).

12.1 - Determination of Priority for Allotment Administration

"Administered to Standard" means "during the fiscal year, an Agency employee qualified in grazing permit administration successfully administers grazing allotments to standard by implementing direction found in LMPs, AMPs, AOIs, grazing permits or grazing agreements, or other relevant documents."

Where staff and resources are limited, the authorized officer must determine which allotments and grazing permits are the highest priority for administration. A prioritized list of allotments and associated grazing permits should be developed on an annual basis to identify which allotments will be "administered to standard" in a given year.

In determining allotment priority, the authorized officer should consider the permittee's history of compliance, allotments with new permittees, how long since the allotment was inspected, any identified resource or administrative problems which have not been resolved, new or emerging resource issues, schedules for project-level analyses, allotments with outdated AMPs, and allotments with new AMPs that are currently being implemented and evaluated for compliance and effectiveness. A spreadsheet showing what monitoring is due that year is encouraged and can be used to help determine priority.

Priority setting at each organizational level should attempt to establish goals to be achieved each year, such as each active allotment should be inspected at least once every three years, or every allotment must be inspected every five years. Annually, each unit should identify specific allotments and associated grazing permits, in priority order, that are to be "administered to

standard." Nearly every unit has workloads or projects that require even more frequent allotment inspection for permittee compliance with allotment management.

Most units will have priority allotments that have to be inspected several times each year because of on-going projects or activities, areas of resource concerns, cases of permittee non-compliance, or the need for meeting ESA consultation requirements.

Vacant allotments, closed allotments, and non-allotment rangelands should also receive periodic attention to ensure that management of the rangeland resources is consistent with the LMP, and that unauthorized use, recreational use, or other situations are properly and timely managed. Non-allotment rangelands will nearly always be the lowest priority for inspection.

To begin the administered to standard process each year, the Forest Service employee holds at least one annual meeting with the permittee, completes some type of annual application form such as the form generated in RIMS, issues a bill for collection, and verifies payment of the bill before livestock are placed on the allotment. Preparation of an AOI or similar document is highly recommended but not required. Most regions annually prepare AOIs as a standard practice.

Administered to standard also requires inspection of the allotment at least once during the grazing year and/or grazing season, making a determination of whether management is in compliance with resource management direction and grazing permit terms and conditions. The results of the inspection(s) must be documented, and also includes annual monitoring results.

During an allotment inspection, if the permittee is found to be in non-compliance with the terms and conditions of the grazing permit, an allotment may still be considered as administered to standard if necessary corrective action is taken at that time, or prior to the next grazing season.

In nearly all cases, a determination of administered to standard will not be made if the allotment did not receive a physical inspection by a rangeland management specialist or other technically qualified Forest Service employee.

The value in establishing the priority is to attempt to stay on schedule and achieve assigned targets and workloads. Unplanned events such as personnel vacancies and wildfires might require the rangeland management specialist to deviate from the schedule and modify the required workload. Even though the planned priority and amounts of work will nearly always change from what is accomplished and reported, an effort should be made to adhere to the planned priorities as closely as possible.

Accomplishment of “allotments administered to standard” is reported in RIMS by marking each pasture of each allotment that meets the definition. The database converts the results into total acres administered to standard. It counts ALL the acres in each pasture administered to standard, regardless of the land ownership and regardless of capability and suitability status.

In most years, this accomplishment will be reported for pastures of active allotments. However, if a temporary permit or livestock use permit is issued on a vacant or forage reserve allotment for that year, accomplishment may be reported for those pastures. The same may hold true for reporting excess or unauthorized use in vacant, forage reserve, or even closed allotment pastures.

12.2 - Allotment Inspections

Based on the prioritization discussed above, individual pastures within specific allotments may also be prioritized. High priority pastures should be inspected frequently enough to determine to what extent management specified in the AOI is being applied and to ensure timely corrections where management is inadequate. For some pastures, permittees, and resource concerns, this may be one time or less during the grazing season. For others, inspections may need to be frequent and recurring.

Many allotments have one pasture that may be representative of the entire allotment and the inspection results can be extrapolated across the entire unit. If this is the case, the other pastures can be inspected less frequently. In other cases, one pasture has the most important resource concerns, but is not representative of the entire allotment. In that case, the entire allotment may be considered as administered to standard without visiting the entire allotment, if the pasture of concern is managed properly and in a timely manner.

12.21 - Permit and Permittee Compliance

Compliance inspections are focused on determining conformance with the terms and conditions of the permit, the AMP, and the AOI or other similar documentation with authorized officer instructions. This involves evaluation of the timeliness of permittee management actions and conformance with assigned AMP and permit terms, conditions, or requirements.

Common compliance items include: all structural improvements maintained to standard and on time as assigned in the permit and/or as specified in the AOI; allotment entry and exit dates; pasture rotations for the year and estimated dates of movement; assuring removal of all livestock from each pasture; proper salt or supplement use and placement; herding and distributing livestock properly; etc.

Allotment inspections should be conducted with the permittee whenever possible. If there are listed species or habitats present in the allotment, inspections might also involve coordination with regulatory Agency personnel.

12.22 - Annual Vegetation Monitoring

Vegetation monitoring requirements and methods are discussed in detail in regional or National Rangeland Ecosystems Analysis, Inventory, and Monitoring Handbooks (FSH 2209.21).

Short-term monitoring (implementation monitoring) answers the following questions:

1. Was management implemented as designed?

2. Did the management actions achieve the annual effect expected?

Vegetation monitoring consists of the evaluation of permittee livestock management to meet AMP and AOI assigned responsibilities, including allowable use. Permittees may be assigned responsibility for conducting certain types of short-term vegetation monitoring, but the authorized officer retains responsibility for ensuring that timely and proper monitoring is completed. This consists of monitoring data collected by Forest Service personnel but may also include the rangeland management specialist verifying results of monitoring data collected by the permittees on an as-needed basis.

Types and locations of vegetation monitoring are prioritized based on resource issues or management concerns, permittee experience and involvement, and time and funding available.

The intent is always to help the permittee to be successful in managing the allotment to meet the terms and conditions of the permit, AMP, and AOI, which leads to meeting or moving toward desired conditions, and to document that allowable use and other vegetation management objectives are being met.

Permit action may become an appropriate response only if objectives have been exceeded in consecutive years or with serious or repeated failure to meet requirements (FSH 2209.13, chapter 10, section 16.2).

12.23 - Compliance with LMP Standards and Guidelines

The project-level analysis and decision shall specify the LMP plan components and management direction that will be applied in the allotment.

Long-term monitoring (effectiveness monitoring) answers the question: Are the management actions making the expected progress toward achieving desired resource management conditions?

A detailed description of how they are interpreted and measured on the ground should be provided in the AMP and condensed in the AOI as needed each year. This will ensure consistency between Forest Service personnel and grazing permittees as to how compliance is measured and determined.

Some of the LMP direction may require modification of the grazing permit, usually by changing the content in Part 3 - Terms and Conditions. Since most of the LMP plan components and management direction have been incorporated into the AMP, and the AMP is by definition attached to and made a part of the term grazing permit, only changes specific to the permittee's

livestock management operations on that allotment will be included on the new Part 3 of the permit. In summary, many site-specific decisions in an updated LMP may not or will not require permit modification with additions to Part 3 or require an updated AMP.

Permittees are responsible for meeting the terms and conditions of the grazing permit, including short-term vegetation monitoring (as required) and managing livestock in compliance with LMP and AMP direction. Forest Service personnel are responsible for performing long-term condition and trend monitoring, determining if allotment objectives and desired conditions are being met.

Based on allotment inspections, monitoring data, and personal knowledge of the allotment, the authorized officer should determine whether livestock grazing met permit terms and conditions during the grazing season, and if the allotment is meeting or moving toward the desired conditions in the LMP and AMP.

The permittee should be provided with copies of annual inspection reports in a timely manner, and with long-term monitoring data, if requested. The intent is to ensure full communication between the Forest Service employees and the permittees and to make them aware of the status of the allotment as to whether it is reported as meeting or moving towards desired conditions.

12.3 - Documentation of Allotment Administration

Paper copies remain the official hardcopy records in 2210 allotment folders and 2230 permit folders (see FSH 2209.13 chapter 60). However, documentation of allotment administration and inspections should be done with the latest electronic equipment and technology to the degree feasible. An electronic format provides a consistent means to collect and document pertinent allotment administration and inspection information and can be utilized to collect LMP monitoring information for later inclusion in annual or periodic LMP monitoring reports.

During or immediately after administration or field inspection, personnel should enter pertinent information from field data recorders, written notes, and personal observations into applicable database locations. The permittee should be notified of any items needing immediate attention. An inspection report should be completed as a minimum on those allotments identified as priorities to be administered to standard in a timely manner so as to allow the permittee full access to information needed to take corrective actions and to ensure compliance with the AOI.

For each monitored pasture, enter all monitoring findings as to location, indicator, methods used, results, and who conducted the monitoring (employee, permittee, or third party) in the RIMS monitoring module. The results of all allotment inspections and data collected must be printed and filed in the official allotment and permit folders. A copy of all applicable records should be sent to the permittee.

This documentation can serve as a basis for discussions with permittees for:

1. Any corrective actions needed to ensure compliance such as notices of non-compliance and suspension or cancellation actions (see chapter 10, section 16.4);

2. Completing annual reporting;

3. Developing AOIs for the coming grazing season;

4. Documenting management success stories and the permittee's contribution to that success;

5. Recording cooperative permittee monitoring results; and

6. Conducting FSH 1909.15 section 18 reviews and future environmental analysis.

12.4 - Permittee Communications

One of the key, but often overlooked, compliance items is permittee communications with the rangeland management specialist. The AOI should specify criteria for communications (such as notification of the rangeland management specialist when a problem is found) that are focused on timely and frequent two-way communication throughout the grazing season.

The permittee should be provided with all inspection reports in a timely manner. The intent is to ensure full and timely communications between the Agency and the permittee in order to meet management requirements and to allow the permittee a reasonable opportunity to correct any deficiencies in a timely manner.

For minor findings, or where rapid response is required, the permittee should be contacted by telephone or in person. If there are instances of non-compliance, the permittee is to be informed as to what specifically is in non-compliance, what action is to be taken to remedy the situation, when the action must be completed, requirements to notify the rangeland management specialist of completion, and should be reminded of the consequences of failure to remedy (FSH 2209.13, chapter 10, section 16.2).

For significant findings, or where action to remedy is required, in addition to the personal contact or telephone call, the permittee will also be notified in writing with a NONC (see FSH 2209.13, chapter 10, section 16.2). For infractions documented after the livestock leave the allotment, see section 16.4 for taking corrective action the following grazing season.

Do not wait until the end of the grazing season to share inspection notes, field notes, etc. with the permittee. They are partners in management of the allotment(s) and must be kept informed in a very timely manner. Timely notification prevents surprises and strengthens communication and cooperation.

On an annual basis, and once monitoring has occurred, inform the permittee as to whether the allotment is reported as meeting or not meeting objectives, and if it was administered to standard.

Inspections should be completed and documented on priority allotments identified to be administered to standard each year. These reports should be summarized and provided to the permittee in a timely manner in order to ensure compliance with the AOI and to make corrections to management for the coming year, if necessary.

Inspection reports should be printed and filed in the official 2230 permit folder and the 2210 allotment folder(s), as appropriate. This documentation can serve as a basis for discussions with permittees regarding:

1. Corrective actions needed to ensure compliance;

2. Completion of entries into appropriate databases and annual upward reporting;

3. Evaluation and selection of adaptive management options;

4. Development of AOIs for the coming grazing season; and,

5. Accounts of management success stories and the permittee's contribution to those successes.

NOTE: With few exceptions, all information found in the grazing permittee's 2230 permit folder and 2210 allotment folder(s) can be provided or shared with the permittee without filing a formal FOIA request. See FSH 2209.13, chapter 60, section 66.3 for the few exceptions and proper procedures.

13 - COOPERATION WITH LAW ENFORCEMENT IN MANAGEMENT OF LIVESTOCK

13.1 - Relationship between Management of Permitted and Unauthorized Livestock

Management of permitted livestock is conducted under grazing permit regulations at 36 CFR 222, with direction found in FSM 2200 and FSH 2209.13. Grazing permits and commercial livestock operators are normally managed by the authorized officer and the rangeland management specialist.

Use and occupancy by some livestock may be authorized under special use or outfitter and guide regulations and directives. This use is managed by the authorized officer and the special uses administrator, with assistance from the rangeland management specialist.

Livestock not under permit, other than exempt recreational pack and saddle stock, are normally managed under 36 CFR Part 261, specifically 261.7 (Prohibitions) and Subpart B 262.10 (Impoundments). Livestock not under permit (with the stated exceptions) may be dealt with by the Law Enforcement and Investigations (LEI) staff with coordination and assistance from the authorized officer and rangeland management specialist or special uses administrator.

13.2 - Excess Livestock Use

As defined in 36 CFR 222.50(h), any livestock use by a grazing permittee (including members of grazing associations permitted under authority of a grazing agreement) that exceeds permitted numbers (or numbers authorized on the annual Bill for Collection) and any livestock grazed outside the permitted/authorized grazing season constitutes excess use. In addition, any livestock grazed in an allotment or other location on NFS lands not authorized in Part 1 and Part 3 of the permit (and the member permit authorized by a grazing association) is defined as excess use.

Examples of excess use include grazing before the permitted on-date, placing or allowing more livestock on the allotment than authorized, and not removing all permitted livestock from the allotment by the permitted/authorized off-date. The latter example is perhaps the most common.

In nearly all instances, excess use will be managed by the authorized officer and the rangeland management specialist through grazing permit administration as specified in FSH 2209.13.

Forest Service Handbook 2209.13, chapter 80, section 81.7 explains excess use in detail. Section 81.71 explains in detail how to deal with cases of excess use and when to charge for the excess use. That direction is clear and specific and will not be repeated here.

Normally, LEI staff will not become involved in these permit administration situations unless specifically requested to provide assistance. Examples where LEI assistance may be appropriate and requested could include, but are not limited to, assistance in delivery of a letter to a permittee when there is reason to believe that risk to employees may occur or when a permit holder fails to accept certified delivery letters.

Requests for LEI to take the lead or provide assistance may also be made in those instances where livestock owned by a permittee are found on NFS lands, where administrative attempts at resolution have not been successful, and/or where those livestock are located a substantial distance from the permitted grazing allotments. This last scenario still constitutes excess use, and will almost always result in permit action, but may require assistance from LEI staff for removal of the livestock or to resolve the infraction.

13.3 - Unauthorized Livestock Use

Unauthorized livestock means any cattle, sheep, goats, hogs, equine, domestic bison, or other livestock not defined as a wild free-roaming horse or burro, which is not authorized by permit to be upon the NFS land on which the livestock is located and which is not related to use authorized

by a permit; provided, that noncommercial pack and saddle stock used by recreationists, travelers, and other visitors for occasional trips do not fall under this definition (36 CFR 261.2). In addition, livestock use authorized under special use or outfitter and guide regulations would not be considered as unauthorized use unless they meet the definition stated above.

Forest Service Handbook 2209.13, chapter 80, section 81.8 explains unauthorized use in detail. Section 81.81 explains in detail how to deal with cases of unauthorized use and when to charge for the unauthorized use. That direction is clear and specific and will not be repeated here.

Unauthorized livestock must be managed to prevent resource impacts and to ensure proper land management. Corrective action is requiring removal of the offending livestock immediately and correction of the problem that led to the unauthorized use in order to prevent a reoccurrence. Per 36 CFR 261.7, the following acts are prohibited:

1. Placing or allowing unauthorized livestock to enter or be in the National Forest System or other lands under Forest Service control.

2. Not removing unauthorized livestock from National Forest System or other lands under Forest Service control when requested by a forest officer.

Work with LEI staff and OGC to enforce these prohibitions. The LEI staff will contact the regional office law enforcement personnel for incident review, additional action coordination, and/or assignment to a special agent. Appropriate feedback should be provided to the authorized officer to keep him/her informed regarding findings and any decisions pertaining to pursuing action utilizing the "placing or allowing" language at 36 CFR 261.7(a) versus the "failure to remove" language at 36 CFR 261.7(b).

Normally it will be more effective to apply 36 CFR 261.7(b) regarding a failure to remove unauthorized livestock as follows:

With initial documented instances of unauthorized use, the appropriate action is for field personnel to document the occurrence in writing, showing number of animals, kind and class, brands or other markings, locations, dates observed, and observers. High quality photographs or video can also be beneficial.

The owner of the livestock can often be determined from State brand records. The assistance of a local brand inspector may be needed in identifying a brand and in determining ownership. Local private parties (permittees, adjacent landowners, etc.) may also be contacted to assist in determining ownership.

Any action taken should generally be against the legal owner of the livestock, not against a landowner, manager, or other party who may be peripherally involved in some manner with the unauthorized livestock.

When the livestock owner is identified, the authorized officer should notify them immediately (usually a telephone call). The authorized officer will provide a reasonable time frame for resolution (normally not to exceed 72 hours) and should specify what will be a satisfactory resolution (full removal of all unauthorized livestock from NFS lands and other lands under Forest Service control within the specified timeframe and correction of the problem that allowed the unauthorized use to occur). This notification should be followed up with a letter to the livestock owner clearly stating what was found, what CFR violations are involved, what actions are required to resolve the situation, by when, and what may be the next step if the situation is not satisfactorily resolved. A copy of this letter should be sent to the LEI staff.

If the situation is resolved in a satisfactory manner, place the documentation in the case folder, and retain for possible future use. Notify the LEI staff that the situation is resolved.

If the offending incident is not resolved in a satisfactory manner, the authorized officer should request assistance from the LEI staff, either verbally or in writing as may be appropriate for the local situation. LEI will assume the lead in resolution of the unauthorized use situation, working within law and regulations, while continuing to interact with the authorized officer and rangeland management specialist.

In the case of repeated violations by the same livestock owner, either within the same or recent years (not necessarily consecutive), LEI should be requested by the authorized officer to take the lead on the violation. The authorized officer and rangeland management specialist will provide such assistance as may be requested, to include inspections, identification of animals and brands, case records, etc. Forest Service law enforcement personnel should ensure that as the investigation and resolution proceeds, the authorized officer remains informed.

Once LEI assistance is requested and LEI staff are assigned to take the lead on the violation, the process used moving forward will follow standard investigative procedures as listed in the law enforcement handbook. In addition, all unauthorized use will be charged for as detailed in chapter 81.81 and according to the rates specified in the annual FSM 2230 Interim Directive and will be in accordance with the LEI investigation timeline.

13.4 - Impoundment and Disposal of Unauthorized Livestock

The regulations at 36 CFR 262.10 provide for the use of impoundment in cases of unauthorized or excess livestock use. As with all LEI activities, impoundment is a serious action with potentially significant implications to personnel, finances, liability, safety, and public perceptions. Impoundment and disposal of unauthorized livestock should only be undertaken after all reasonable efforts to control or remove unauthorized or excess livestock through permit, civil, criminal or other actions have been unsuccessful, or when removal is necessary to protect the government against resource damage or provide for public safety.

When livestock impoundment and/or disposal needs to occur, the authorized officer shall initiate actions; but close and careful coordination must occur with the LEI staff who will implement impoundment and livestock disposal procedures (FSH 5309.11, 23.14b). Both parties will work together and with their appropriate counterparts to develop an impoundment plan. The regional range program manager and the Office of General Counsel (OGC) should be requested to review the plan and to provide any needed counsel and assistance. Close and continuous coordination should also occur with the Washington Office rangeland management staff due to the sensitivity of impoundment actions.

In some States, the livestock inspector has been directed by legislation not to inspect impounded livestock unless the impoundment is carried out in accordance with a court order. In these instances, close coordination with law enforcement and OGC is essential.

14 - COOPERATION WITH OTHER USERS OF RANGELANDS

Often other permitted and incidental livestock uses occur on allotment rangelands. It is important to manage this incidental and permitted livestock use to minimize conflicts and to ensure proper management of the rangeland resources.

14.1 - Other Permitted Uses of Rangelands

14.11 - Outfitter and Guide Permits

Often outfitter and guide permits will be issued for areas overlapping established allotments. Depending on the type of use authorized by the permit, there may be associated livestock use (pack and saddle stock) or there may be approvals to occupy areas that put the permit holder and clients in direct conflict with permitted livestock use. Additional discussion of issuance and administration of outfitter and guide permits is found in FSH 2209.13, chapter 50, section 54.1.

Where such dual use occurs, the special use permit administrator and the rangeland management specialist, working with the authorized officer, must design and build into the respective permits the mandatory and optional clauses necessary to minimize conflict and manage the resources.

Specific clauses where the special use permit authorizes pack and saddle stock should be prescribed by the project-level environmental analysis and decision and include:

1. Specification as to the areas authorized to be grazed, holding areas, and/or picket sites as well as timing restrictions.

2. Any requirements for separation of pack and saddle stock from permitted livestock, instructions on use and maintenance of facilities (fences, corrals, cow camps or cabins, water sources, etc.).

3. Allowable use levels, including forage utilization or stubble height; trampling; and impacts to trees or associated vegetation. Allowable use levels should be similar or identical to those required of grazing permit holders.

Some types of outfitter-guide permits do not include livestock but may authorize use and occupancy of specific areas such as campsites, boat or raft put-in or take-out sites, etc. Where these uses overlap with permitted livestock use, both permits should contain coordinated management conditions (such as timing restrictions, areas of exclusion, or who is required to maintain fences) to minimize conflict.

14.12 - Other Special Use Permits

Special use permits have been issued to allow for use and occupancy of areas of NFS lands fenced in with private lands, to deal with land management issues associated with irregular boundaries, adjacent or intermingled lands, or topographic location.

In general, if the primary use is for commercial livestock grazing, these uses should normally be authorized under the grazing regulations and direction. If the primary use or purpose of these areas is for the convenience or exclusive use of the permittee, to respond to difficult or impossible fence/land ownership boundary locations, or if the livestock use is secondary or incidental to other permitted uses such as grazing of hayfields or aftermath, then the areas would normally be authorized under the appropriate special use direction (Livestock Areas and Convenience Enclosures).

However, it is important to be realistic about these types of permitting situations. Regardless of the above general guidance, make use of the authorities and permit type that will provide the best overall management of the resources at the most cost-efficient levels to deal with the site-specific situation.

A detailed discussion concerning types of special use permits, their issuance, and their administration is located in FSH 2209.13, chapter 50 (Tribal Treaty Authorizations and Special Use Permits), section 54.

In managing these areas, it is important that rangeland management specialist coordinate with the special uses administrators to ensure that permits contain appropriate grazing management terms and conditions, management of the livestock is in compliance, and that the rangeland resources are meeting or moving toward desired conditions.

Decisions regarding management of these parcels should be made in concert with LMP management area or geographic area direction.

14.2 - Other Rangeland Users

Annually, other activities will occur on lands within allotments. There is a potential for conflict between these events and the management of the allotment. Ensure close coordination between livestock management activities and the managers of these events or activities to minimize the potential for negative interactions.

14.3 – Recreation Special Events

Frequently, the Forest Service receives applications from recreation user groups to conduct large gatherings, conventions, or other sizable events on NFS lands within allotments. Examples of organized and permitted recreational events include but are not limited to: mountain bike races; muzzleloader rendezvous and distance running events. Many of these events bring large groups of people to one location, creating the potential for conflict between these events and the management of an allotment.

The first key to avoiding or minimizing potential conflicts is early coordination between the rangeland management specialist and the special uses administrator. Early in the process, the rangeland management specialist and the special uses administrator (and other specialists as needed), should identify potential resource conflicts and possible solutions before deciding to approve the application and issue a permit for the event.

Once the issues and potential conflicts have been identified, the rangeland management specialist should contact the livestock grazing permittees within the associated allotments to inform them of the details of the proposed event and to determine how livestock operations may be impacted. The discussions should focus on such things as flexibility of pasture movements to minimize or avoid conflicts, use around water sources or developments, fences and gates concerns, livestock disturbance, and other resource or forage concerns.

If the decision is made to issue the recreation event permit, all these impacts and effects need to be minimized or avoided to ensure positive experiences for all of the users involved. Close coordination between livestock management activities and the managers of these events or activities is imperative to minimize the potential for negative interactions.

15 - MANAGING ALLOTMENT AND OTHER RANGELAND IMPROVEMENTS

15.1 - Administration of “Cow Camps”

For guidance on administration of cow camps, see FSH 2209.13, chapter 50, Tribal Treaty Authorizations and Special Use Permits.

15.2 - Water Permits and Water Rights for Surface Water Use

The right to use water for permitted livestock grazing comes under the jurisdiction of the State where the allotment lies. States manage the use of waters within their borders. FSM 2540 addresses "Water Uses and Development." Refer to FSM 2541 for specific details on NFS water rights. When questions arise, contact your local water rights specialist (normally the hydrologist) and/or the regional water rights and uses specialists.

15.3 - Water Permits and Water Rights for Groundwater Use

The requirements for applications, permitting, drilling, and filing for use of groundwater are not the same as those for surface water in many States. As with surface water, States manage the use of waters within their borders. FSM 2540 addresses "Water Uses and Development." Refer to FSM 2541 for specific details on NFS water rights. When questions arise, contact your local water rights specialist (normally the hydrologist), and/or the regional water rights and uses specialist. You may also want to contact the Washington Office groundwater technical team for assistance.

15.4 - Structural Improvements

15.41 - Permit Modifications for Cooperative Rangeland Improvements

Prior to initiating any allotment structural improvement involving permittee(s) cooperative arrangements, a permit modification for cooperative rangeland improvement work will be completed and signed by the authorized officer. A sample modification form is found in FSH 2209.13, chapter 10, exhibit 16.1. Some regions still prefer to use the original permit modification form (FS-2200-113) for the same purpose.

Any form used will become a modification to the grazing permit and as such the work specified must be completed on time and to specifications. The form should be filed on top of the grazing permit (it essentially becomes a lien against the permit) in the 2230 folder until the work has been completed.

Final inspections of the work will be made by a rangeland management specialist and documented in writing. The authorized officer, upon acceptance of the project work as completed to standard, will sign off on the form indicating acceptance of the work and closing of the modification. At that time, the completed modification will be moved to the 2210 allotment folder, the 2240 folder for the allotment, and information about the improvement entered into the appropriate allotment locations in the RIMS database.

At that time, the newly completed improvement will be added to the list of range improvements that the permittee is responsible to maintain.

15.42 - Standards and Specifications

Attachments to the permit modification form will include appropriate standards and specifications, including Best Management Practices (BMPs). They are to be of such quality that they clearly detail the work to be completed, spell out any required specifications for the materials, and contain appropriate high-quality drawings or plans. These specifications are the basis for ensuring that funds are spent appropriately and that improvements are of high quality, will meet the purpose of the project, and are capable of functioning for a reasonable life-span with responsible maintenance (normally 20 to 40 years depending on the type of improvement, the location, weather, and other considerations).

In the absence of regionally approved standards and specifications, use the following references:

- Fences (2nd edition). February 1999.
- Facilities for Watering Livestock and Wildlife. January 1989.
- Facilities for Handling, Sheltering and Trailing Livestock. September 1987.
- Rangeland Water Developments at Springs: Best Practices for Design, Rehabilitation, and Restoration. RMRS-GTR-405, January 2020.
- Specifications for Structural Range Improvements (PNW-GTR-250). September 1990.
- Taylor, D.A.R.; Tuttle, M.D. 2012. Water for wildlife—A handbook for ranchers and range managers. Austin, TX: Bat Conservation International. 20 p.
- USDA Forest Service. 2012c. National best management practices for water quality management on National Forest System lands, volume 1: National core BMP technical guide. FS-990a. Washington, DC: U.S. Department of Agriculture, Forest Service. 165 p.
- USDA Forest Service. [In press]. National best management practices for water quality management on National Forest System lands, volume 2: National core BMP monitoring technical guide. FS-990b. Washington, DC: U.S. Department of Agriculture, Forest Service.
- USDA Natural Resources Conservation Service [USDA NRCS]. 2006. Conservation practice standard: Spring development code 574. Washington, DC: U.S. Department of Agriculture, Natural Resources Conservation Service. 4 p.

- USDA Natural Resources Conservation Service [USDA NRCS]. 2010. Chapter 32: Well design and spring development. In: Engineering Field Handbook, Part 631. Washington, DC: U.S. Department of Agriculture, Natural Resources Conservation Service. 63 p.

- USDA Natural Resources Conservation Service [USDA NRCS]. 2011. Chapter 12: Springs and wells. In: Engineering Field Handbook, Part 650. Washington, DC: U.S. Department of Agriculture, Natural Resources Conservation Service. 51 p.

- USDA Natural Resources Conservation Service [USDA NRCS]. 2012. Wildlife escape ramps for livestock watering troughs. Portland, Oregon. 2 p.

- USDA Natural Resources Conservation Service [USDA NRCS]. 2016. Ecological considerations in spring development. Technical Note No. WNTSC TN 190-EQ-1. Portland, Oregon, West National Technology Support Center, Environmental Quality. 14 p.

- U.S. Department of the Interior. 2006. Riparian area management: grazing management processes and strategies for riparian-wetland areas. Technical Reference 1737-20. BLM/ST/ST-06/002+1737. Denver, CO: Bureau of Land Management, National Science and Technology Center. 105 p.

- U.S. Department of Interior. 2020. Riparian area management: Proper functioning condition assessment for lentic areas. Technical Reference 1737-16. U.S. Department of Interior, Bureau of Land Management, National Operations Center, Denver, Colorado.

15.43 - Cooperation with Permit Holders

Permittees are typically required to contribute approximately 50% to the cost of structural rangeland improvements on allotments where they hold term grazing permits. These may be fence construction, water or spring developments, pipeline installation, etc.

Permittees are usually required to cost-share in non-structural improvements such as noxious weed treatment, seeding, or prescribed fire application, when the primary purpose of the project is to maintain or increase the quantity and/or quality of the available forage but the percent contributed is often less than 50% (see section 15.8 below).

This 50/50 cost-share requirement may be applied on individual projects or may be applied on a group of projects, such as may occur during the implementation of a project level environmental analysis and decision and updated AMP. The most common and recommended method of cost-share is the Forest Service will buy the materials and the permittee will provide the equipment

and labor to complete the project. Because costs can be considerably higher, avoid situations where the project is completed under contract, if possible, unless the permittee is the one who hires the contractor.

The permittee requirements of a) 100% maintenance of existing improvements and b) the 50/50 cost-share on new improvement construction were two of the factors taken into account in the establishment of the Forest Service grazing fee formula.

This cost-share arrangement should be agreed to with the permittee(s) before beginning any rangeland improvement work and documented on the permit modification form. Part 2 Item 8(h) of the term grazing permit requires permittees to cooperate in assigned rangeland improvement work.

15.44 - Maintenance of Rangeland Improvements

Grazing permittees are required to perform all required maintenance of structural range improvements. Part 2 Item 8(i) of the term grazing permit requires them to cooperate in annually completing all assigned rangeland improvement maintenance.

Range Betterment Funds (RBF) will never be used for annual maintenance. Only appropriated funds may be used in the rare case where the agency is responsible for improvement maintenance.

In the instance of an active allotment that becomes a forage reserve or vacant allotment, the maintenance of rangeland improvements still needs to be completed. This may include assignment of maintenance responsibilities to permit holders on the adjacent allotments for shared fences, agreements with third parties, and/or other viable arrangements.

In the instance of a vacant allotment that becomes a forage reserve, some other arrangement needs to be made to sustain the utility and life of the improvements. This may include agency maintenance requirements with appropriated funds during the years when the allotment is not authorized for livestock use.

When the respective allotment(s) is authorized for use. Maintenance responsibility for improvements that are not assigned to another term permit holder (e.g., a permittee on a neighboring allotment that shares a fence) will be assigned to those parties authorized to make use of the forage reserve or vacant allotment under permit modification or temporary permits.

15.45 - Cooperation with other Agencies

In situations where agency land ownerships are intermingled, it is advisable to work cooperatively with the other involved agencies or landowners in developing and implementing cooperative plans and the associated allotment rangeland improvement projects.

Procedures for contributions to the work from other agencies or entities can often be detailed on the permit modification. For example, the BLM and/or the State could contribute funds to the construction of a division fence crossing their ownerships and the permittee will install the fence. These contributions will not necessarily require any additional documentation other than the permit modification.

Processes for formal agreements between agencies differ and are usually expensive and time consuming. If cooperation is proposed that will require involvement of a contracting officer and/or a grants and agreements specialist from the Forest Service and other agencies, explore all options to determine the most efficient and cost-effective method for getting the work completed.

Under certain circumstances, it may be appropriate and preferable to cooperate through use of other agency funding sources (such as the Natural Resource Conservation Service (NRCS) EQIP program) for the permittee for developments on their NFS allotments. Contact the NRCS State Conservationist for more information.

Other agencies in this context can include other Federal agencies but may also include State, county, or local agencies. Cooperation and funding may also be available for non-governmental partners, including conservation groups such as the National Wild Turkey Federation and the Rocky Mountain Elk Foundation and other fish, wildlife and rare plant conservation and stakeholder groups interested in associated native species conservation and restoration objectives.

15.46 - Cooperation with Adjacent Private Landowners

At times, it is beneficial to management of the NFS lands to cooperate with adjacent private landowners in the construction of certain structural improvements.

In all instances, there must be clear benefits to the resources of the NFS lands. In addition, given the mission to demonstrate sound land utilization and management practices across national grassland units, the cooperation with landowners needs to have clear benefits to the intermingled and adjacent private lands across the entire landscape.

There are often requests for assistance with construction of private land boundary fence where NFS lands border adjacent lands, either inside the allotment or outside the forest boundary. Case law has found that the Federal government is not obligated to fence NFS lands to prevent unlawful entry. This situation applies regardless of whether the local area (State, county, and herd district) is an open range situation (defined in section 19) or is covered by herd laws. See specifically:

1. Shannon v. United States, 160 Fed. 870 Cir. 9 (1908);

2. Light v. United States, 220 U.S., 523 (1911);

3. United States v. Gurley, 279 Fed. 874 (Northern District of GA. 1922);

4. United States v. Johnston, 38 F. Supp. 4 (Southern District of W. Va. 1941).

These cases affirm that the United States is not required to fence federal lands to protect from unauthorized livestock or to control the livestock permitted to graze on National Forest System lands. Agency policy relative to private land boundary fences is also provided in FSM 2240.6.

However, since it is advantageous to keep the livestock within the grazing allotment for proper management, many grazing permittees cooperate with the adjacent landowner to complete their necessary maintenance.

In addition, further strengthening the Federal position, many States are fence-out States, which means that the private landowner is legally required to fence their lands, by State statute, if they wish to prevent livestock entry onto those deeded lands.

Only in rare cases would the agency decide to assist in the reconstruction or construction of private land boundary fence. Assisting in private land boundary fencing creates a perception that the Forest Service may be favoring one party or that we should cooperate in all similar situations. Obviously costs and logistics can become rapidly prohibitive.

There are situations where such cooperation may be appropriate. For example, if permitted livestock are leaving the authorized area and may be potentially impacting threatened or endangered species or habitats, or if public safety is a concern, it may be wise to take actions to resolve the problem. In these instances, one potential action could be to cooperate with the reconstruction or construction of the fence.

In any case, keep in mind that if government funds are used in the construction of an improvement, ownership of that improvement must normally be in the name of the government. There are a few exceptions, such as use of the Wyden Amendment (Public Law 105-277, Section 323 as amended by Public Law 109-54, Section 434, and permanently authorized by Public Law 111-11, Section 3001) or use of the NRCS's EQIP program funds. If there is any doubt, coordinate with the regional rangeland program manager and OGC before proceeding.

Many boundary fences have outlived their normal life expectancy and are rapidly losing their effectiveness at holding livestock on or off the national forest system lands.

Despite the legal Federal position regarding boundary fence policy, authorized officers are frequently finding themselves in situations of controversy where no one wants to accept legal responsibility for reconstruction, including State and county elected officials. Solutions, where they can be found, must always begin with open communication between the parties.

It is perhaps even more important to note, however, that each of the above Federally-important court decisions were issued prior to the time that the Forest Service acquired the management of the national grasslands (then called Land Utilization Projects) from the Soil Conservation Service (now called the NRCS) in 1954. See FSM 2240.6, Livestock Intrusion, for a more detailed explanation of the national grassland mission on intermingled lands.

Since national grasslands have administrative boundaries, but not proclaimed ones, authorized officers need to be aware of Agency policy regarding replacement of "boundary" fences, but also informed of State statutes concerning fence ownership and maintenance responsibility between neighbors. Authorized officers need to evaluate each situation on a case-by-case basis, determine if there are cooperating agencies or partners available, including Wyden Authority (Public Law 105-277, Section 323 as amended by Public Law 109-54, Section 434, and permanently authorized by Public Law 111-11, Section 3001) or other funding mechanisms for large projects or natural disasters, and be a "good neighbor" when and if circumstances make it possible or necessary to do so.

15.5 - Protection, Replacement, and Maintenance of Improvements Affected by Contracts, other Permits, and other Resources

Where other resource area activities propose projects that may affect the integrity of rangeland structural improvements, close coordination needs to occur to ensure the protection and maintenance of those improvements by the appropriate parties.

The Rangeland Management Specialist should be a member of the Interdisciplinary Team (IDT) for other resource area projects.

15.51 - Timber Sales and Timber Management Activities

Where there is a contract or permit (such as a timber sale contract) authorizing activities within one or more allotments, and where that activity has a potential to impact rangeland structural improvements, the contract or permit needs to carry provisions for the protection, timely maintenance, and restoration of any improvements damaged by the activity. The contract or permit should also contain a map of structural improvements obtained from the appropriate GIS structural improvement layer.

The Rangeland Management Specialist should be a member of the project IDT, and work closely with the timber sale implementation team and contract administration to provide grazing management, allotment management, and rangeland improvement information and maps as appropriate. The Rangeland Management Specialist would also provide input into the design or mitigation measures that would be required for project implementation.

Refer to FSH 2409.18 Timber Sale Preparation handbook and FSH 2409.19 Renewable Resources handbook for the preparation of Sale Area Improvement (SAI) plans and the use of

Knutson-Vandenberg (KV) funds to construct and pay for new or replacement construction of rangeland improvements required by the timber sale operations and harvest.

15.52 - Wildfires

For wildfire fire direction, see FSM 5130, Wildfire Response.

15.53 - Prescribed Fires

For prescribed fire direction, see FSM 5140, Hazardous Fuels Management and Prescribed Fire.

15.54 - Recreation

Livestock permittees are most often impacted by the recreating public with gates being left open. Work with recreation managers to inform them and their recreating publics that the best practice is to close the gate after you go through it.

Increasing recreation use of all types is placing increased demands on developed water sites and water sources. Recreationists and recreation managers need to be aware that numerous campers around stock dams and stock tanks can prevent the livestock from necessary use of the watering facilities. Work with recreation managers to assure that outfitter and guide operations do not place additional use on critical water facilities.

Grazing permittees are not required as a term of their permit to avoid popular dispersed use sites or to maintain fences around developed recreation sites. Recreation managers are required to perform annual maintenance on recreation site fences.

15.55 - Wildlife and Fisheries

Wildlife fences that are built to exclude livestock grazing for threatened or endangered species habitat, Species of Conservation Concern, or other habitat requirements will be annually maintained to standard by Forest Service personnel, not by the grazing permittee.

Segments of fences constructed along riparian zones for fisheries habitat and to preclude grazing except at designated water gaps will be annually maintained to standard by Forest Service personnel, not by the grazing permittee. The exception to these situations is where consultation has required maintenance by the grazing permittee.

Exclosures built to specifically meet other resource objectives must also have management objectives that clearly define when the objectives have been met and the exclosure will be removed.

15.6 - Roads, Cattleguards, and Gates

In instances where a new fence crosses an existing forest road, the responsibility for installation of a cattleguard or gate, as appropriate to the site and traffic level, rests with the Forest Service's forest engineering department since the cattleguard and wings are considered part of the road prism.

If the structure is a gate, maintenance will normally be assigned to the permit holder for the gate and adjacent fence. Fences and gates providing access to campgrounds, guard stations, special use permit areas, etc. are the maintenance responsibility of the benefiting parties rather than the livestock grazing permit holder.

If the structure is a cattleguard, installation, ownership of, and maintenance for the structure is the responsibility of the Forest Service's forest engineering department.

In instances where a new road (or upgrade) crosses an existing fence and the specifications provide for either a new gate, an upgrade to the existing gate, or installation of a cattleguard, the responsibility for construction rests with the functional group developing the road. Maintenance responsibility for cattleguards will normally rest with the Forest Service's forest engineering department.

If the road is covered under a right-of-way or easement, the terms of that document will normally specify that responsibilities for construction, maintenance, and ownership will rest with the entity holding the right-of-way or easement.

Revised statute 2477 (RS-2477) roads have become points of contention in the early part of the 21st century. RS-2477 was passed by the US Congress in 1866 and refers to county and State roads that crossed Federal land. It granted the counties and States a right-of-way across Federal land when a highway was built. Although it was repealed by the Federal Land Policy and Management Act of 1976, the repeal was subject to valid existing rights.

The current issues concern when these roads that precede the creation of the Forest Service in 1905, and cross NFS lands, that the agency has no right to establish or enforce travel management or restrictions on private, county, or State lands with pre-existing access and travel rights. Case law provides some direction on these issues when they arise.

15.7 - Water Systems Serving Multiple Users and/or Multiple Land Ownerships

At times, water systems may be proposed to serve multiple users and/or multiple land ownerships. These systems may be designed to water livestock as well as to serve potable water users; they may even be proposed as part of a municipal water system. Although complex, these situations can provide significant benefits to rangeland resources and should be fully considered.

Ownership and maintenance responsibilities for the various parts of the improvement must be carefully considered and spelled out in writing. Design may include the need to install power poles, electrical lines, meter boxes, solar panels, etc. Maintenance responsibility and billing requirements need to be decided. Normally Forest Service funds can only be used on NFS lands and the improvement ownership of those portions must vest in the government.

15.71 - Multiple Users

A water development may be designed to provide water to a variety of users such as recreational developments, administrative sites, or local residences, as well as to permitted livestock on one or more allotments.

Water rights are a key consideration in these situations. Work closely with the water rights specialists to ensure compliance with applicable laws.

Such developments must be carefully designed to ensure that the needs of the various users are met. Such developments often come with higher development standards than may be common to rangeland structural improvements. Normally, the standards (development and construction type, water quality, etc.) from the most restrictive use will apply to the system, except where developments such as piping water off-site to a livestock water trough may apply lower standards if doing so will not compromise the other parts of the water system.

15.72 - Multiple Land Ownerships

Projects affecting multiple land ownerships may also be feasible, these may include a stockwater pipeline with associated troughs, domestic residence lines, or even irrigation pipelines.

Water rights are a key concern. Work closely with the water rights specialists to ensure compliance with applicable laws.

Normally, the Forest Service can cost share only those portions of the structure that actually occupy NFS lands. Other entities will need to fully fund and construct all structures, or portions thereof, that occupy non-NFS lands. Under certain programs (EQIP for example), other agencies may cost-share work occurring on NFS lands.

Forest Service contributions to the rangeland management portion of the project should be commensurate with the benefits to be obtained to rangeland resources including, as appropriate, permitted livestock.

Where the project benefits term permit holders, the permittee should normally contribute 50-50 cost-share to the development for the specific portion benefiting their livestock management.

Ownership and maintenance of the facilities must be assigned. Projects of this extent will generally require written agreements between the involved parties regarding ownership and long-term maintenance responsibilities. Without this assurance, the Forest Service should not approve development on NFS lands.

15.8 - Nonstructural Improvements

Just as with structural improvements, prior to initiating any allotment nonstructural rangeland improvement efforts involving permittee(s) cooperative arrangements, a permit modification for cooperative rangeland improvement work will be completed and signed by the authorized officer.

Any form used will become a modification to the grazing permit and as such the work specified must be completed on time and to specifications. The form should be filed on top of the grazing permit in the 2230 folder until the work has been completed. Permit action (suspension or cancellation) may be taken if the nonstructural improvements are not implemented in the manner described.

Once the work has been satisfactorily completed, the modification will be moved to the 2210 allotment folder, and perhaps the 2240 folder if the number of improvements has made the allotment folder too large, and all of the information about the acres improved and the method(s) of treatment will be entered in the appropriate allotment locations in the Forest Service Activity Tracking System (FACTS) database.

Attachments to the permit modification form will include appropriate standards and specifications. These specifications are the basis for ensuring that funds are spent appropriately and that the vegetation improvements are completed properly and meet any legal requirements.

15.81 - Cooperation with Permit Holders

Permittees may be required to cost share on nonstructural improvements such as seeding, prescribed fire application, or treatment of noxious weeds or poisonous or other undesirable plants, but the percentage contribution may be less than 50%.

The standard accepted method of cost-share is often the same as with structural improvements – the Forest Service will buy the materials (for example, the herbicide or the grass seed) and the permittee will provide the equipment and labor to complete the spraying or seeding project. Because costs can be considerably higher, avoid situations where the project is completed under contract, if possible, unless the permittee is the one who hires the contractor.

Provided they are State-certified applicators, grazing permittees can be authorized to control noxious weeds and invasive species on their permitted grazing allotment(s) using their own equipment. There is no liability to the government under such circumstances, and the Forest Service can provide the herbicide as its share of the project costs.

There are notable examples, especially in the national grassland units of the southern Great Plains, where the grazing permittees have completed all of the required fire training and meet standard qualifications for agency personnel and cooperators. In these cases, the permittees are actively involved in conducting necessary prescribed fire treatments as qualified agency cooperators

This cost-share arrangement should be agreed to with the permittee(s) before beginning any rangeland improvement work and documented on the permit modification form. Part 2 Item 8(h) of the term grazing permit requires permittees to cooperate in assigned rangeland improvement work.

It is important to remember that the permittee requirements of a) 100% maintenance of existing improvements and b) the 50/50 cost-share on new improvement construction were two of the factors taken into account in the establishment of the Forest Service grazing fee formula.

15.9 - Preparation Discussions for Grazing After or During Wildfire (RESERVED)

This section is reserved and will provide direction on which annual discussions should be held to develop contingency plans with permittees in the event that their allotment is impacted by wildfire in a given year.

16 - CONVERSION OF KIND, CLASS, OR WEIGHT OF LIVESTOCK

Conversions of kind or class of livestock may be made as an administrative action where such conversion is consistent with the existing project-level environmental analysis and decision and is supported by appropriate inventory or monitoring information.

Conversions based on animal weights may be appropriate where information indicates that current stocking or permitting calculations were based on historic animal weights that differ significantly from current animal weights; and where monitoring indicates that increasing animal weights over time might be a factor in management having difficulty in meeting allowable use criteria and/or in meeting or moving toward desired conditions.

However, in most cases, increases in animal size are self-limiting when management applies allowable use criteria and livestock are removed once the criteria are reached (i.e. larger livestock tend to eat and trample more forage thereby reaching the allowable use criteria earlier than might be expected of smaller livestock). The allowable use levels are general guidelines but may also become triggers that require management actions.

16.1 - Conversion of Kind of Livestock

Conversions from cattle to sheep, sheep to cattle, or conversions to other kinds of livestock such as bison, horses, etc. may be made when such conversion is supported by the effects analysis in a current and sufficient project-level environmental analysis and decision.

Although conversion factors are available as described in section 16.4 below, these factors only provide a rough guide. The actual conversion factors to be used must be tailored to the site-specific conditions. For example, a conversion from sheep to cattle would occur at a 5:1 ratio based solely on the 16.4 table. However, this conversion factor is based only on forage consumption values. Because cattle make use of a rangeland in a much different manner than do sheep, the effects on the resources will be different. Cattle will tend to use areas that are flatter, closer to water, and will concentrate in preferred areas more than will sheep managed by a herder. Sheep tend to use steeper slopes; cattle generally forage on more grasses, and sheep on more forbs, which influences the suitable and capable rangelands utilized by the two kinds of livestock.

When converting between kinds of livestock, adjustments must be made for amounts and spatial distribution of suitable and capable rangeland, as well as for the possibility to use structural improvements to aid distribution. Therefore, while a 5:1 conversion for sheep to cattle may be appropriate for a flat, well-watered and fenced pasture with relatively uniform vegetative communities, it may need to be a higher conversion (run fewer cattle) on relatively steep slopes with stringer riparian areas and significant areas of plant communities not generally preferred by cattle. There is no set rule for conversion. The key is that the authorized officer makes a professional science-based determination and documents the rationale behind the factors. If the conversion is not acceptable for resource reasons, or is not acceptable to the permittee, do not convert.

All conversions should be approached conservatively. Stocking and monitoring the allotment is the most accurate way to determine an appropriate stocking rate.

Once conversion has occurred, monitoring must be conducted over time to verify the conversion values are achieving the desired results. If any conversion adjustments are needed, they are administrative actions only and do not require any further analysis.

16.2 - Conversion of Class of Livestock

Conversions of class of livestock such as from cow/calf to yearlings or ewe/lamb to dry ewes will rarely require a project-level environmental analysis and decision.

Conversions between classes of livestock are often based on conversion tables such as shown in 16.4 below. These conversion tables are normally based only on forage consumption and do not take into account the differences in how the classes of livestock use rangelands. Therefore, while these conversion factors are a helpful guide, they must be adjusted to fit the local situation.

Considerations include differences in distribution between yearlings and mature cows; differences in preferred vegetative communities, differences in management requirements (quality and quantity of fences, distribution of water), and the ability of the permittee to ensure compliance with management requirements.

Very seldom will a conversion occur based solely on the tables below. There is no set rule for conversion. The key is that the authorized officer makes a professional science-based determination and documents the rationale behind making this administrative decision. If the conversion is not acceptable for resource reasons, or is not acceptable to the permittee, do not convert. Changes in class of livestock is nearly always an administrative decision.

In any case, once conversion has occurred, monitoring must be conducted over time to verify the conversion values are achieving the desired results. If any conversion adjustments are needed, they are administrative actions only and do not require any further analysis.

16.3 - Conversion Based on Animal Weights

Over time, livestock weights have generally increased in some locales of the U.S. In part, this is due to changes in breed of animal (Angus vs. Charolais/Limousine) and in part is simply due to changes in livestock industry practices. In any case, the end result is that actual forage harvest and animal impact has potentially increased relative to changes in animal size.

Often this change has occurred concurrently with improvements in rangeland management including, at times, reductions in permitted numbers or seasons with a resultant improvement in forage production and rangeland condition. Often the net result is that the forage harvest and animal impact are still in balance with allowable use design criteria, resource needs, and resource conditions despite significant increases in animal size. However, there are other situations where this increase in animal size, and therefore the corresponding increase in forage harvest and animal impact, has resulted in the rangeland being over-obligated relative to permitted numbers, seasons, and applied management, and therefore AUMs.

Conversion tables (16.4 below) are based primarily on forage consumption. For example, one Animal Unit (AU) is defined as the amount of forage consumed in a one month period by a 1,000 pound cow, either dry or with calf up to six months of age, or the equivalent, based on a standardized amount of forage consumed (SRM 1989 – Third Edition, A Glossary of Terms Used in Range Management). An Animal Unit Month (AUM) is therefore one Animal Unit (AU) grazing for one Month. Generally, a figure of 26 pounds of air-dry forage per day (or 780 pounds per month) is used although this can vary significantly depending on the literature source cited.

This conversion ratio and forage requirement is based on the concept that a 1000-pound cow was common several decades ago and formed a reasonable baseline. However, in some areas, cows

currently average 1200 – 1500 pounds. These larger animals normally consume, or impact, greater amounts of forage than the standard 1000-pound cow, with or without calf.

Grazing capacity estimates were originally derived from range analyses based on the assumption that plant communities, within suitable and capable range, in a given range condition, were capable of producing an average of so many pounds of available forage per acre.
In most instances, calculations of grazing capacity based on inventory and analysis should ONLY be used as A STARTING POINT. In practice, actual grazing capacity is highly dependent on the specific livestock involved, the level and quality of permittee management including salting and riding/herding practices, available water sources, topography/aspect, vegetative communities present, resources and conditions on the ground, annual climatic variations, etc. There is really no single proper stocking rate for a given parcel of land. For this reason, stocking rates are assumed to be estimated starting points, and are to be refined through monitoring and adaptive adjustment over time to match the level of actual applied management. They can and may change over time; annually numbers may be higher for a shorter period of time or lower for a longer period. They may change over the long-term based on improved management results.

Given the above discussion, the conversion table in section 16.4 below is to be used as a general guide. Where there are no significant resource concerns and the larger animals are able to be managed to meet applicable design criteria (as indicated by monitoring), and to meet or move toward desired conditions (again, as indicated by monitoring), no permit adjustments are needed. However, where design criteria cannot be met and/or resource conditions are not satisfactorily meeting or moving toward desired conditions, and animal size is potentially a factor, adjustments may need to be implemented to bring actual stocking rates in line with forage availability and resource concerns.

In summary, there are many factors to be considered in the management and vegetative trend of the allotment. *An attempt to reduce the stocking rate based solely on the size of a cow will rarely, if ever, be an accurate and defensible decision.*

16.4 - Conversion Factors

The following conversion table is for general use only – site-specific adjustments should be applied in virtually all circumstances. This information was derived from a number of literature sources and represents an average or consensus. Values cited throughout the literature will vary, often significantly. Exhibit 01 displays the General Animal Use Conversion Table.

16.4 - Exhibit 01
General Animal Use Conversion Table

Animal Kind and Class	Animal Unit Month Factor	Daily Dry Weight (lbs.) Consumption
1000 lbs. animal - baseline	1.0	26
Dry cow (1000 lbs.)	1.0	26
Cow (1000 lbs.) with calf less than 6 months of age	1.0	26
Weaned Calf (500 to 700 lbs.)	0.5-0.7	13-18
Yearling over 6 months of age (700 lbs.)	0.7	18
Bull (1500 lbs.)	1.5	39
Bison (1000 lbs.)	1.0	26
Horse (1200 lbs.)	1.2	26
Dry ewe/nanny (125 lbs.)	0.2	5
Ewe (125 lbs.) with lamb(s)	0.3	8
Moose (900 lbs.)	0.9	23
Elk (600 lbs.)	0.6	16
Llama/Alpaca (325 lbs.)	0.35	11
Bighorn (200 lbs.)	0.2	5
Pigs (200 lbs.)	0.2	5
Deer (135 lbs.)	0.17	4.5
Pronghorn (110 lbs.)	0.11	3

17 - FORAGE RESERVES AND CURRENTLY AVAILABLE FORAGE RESOURCES

17.1 - Forage Reserve Allotments

Forage Reserve allotments (see also FSM 2200, chapter 2205, Definitions) are a designation for a type of allotment on which there is no current term permit obligation for some portion or all of the estimated livestock grazing capacity, and where there has been a project level environmental analysis and decision made to infrequently use the available forage on the allotment to enhance management flexibility for authorized livestock use or to achieve a desired vegetative condition, (e.g. to create a “forage reserve”). These are variously referred to as a “swing pasture or swing allotment,” or other various terms. The Forest Service will refer to these types of allotments as forage reserves.

17.11 - Utility

Forage reserve allotments may be used in conjunction with authorized livestock use when there is a loss of forage availability on active allotments from a variety of factors such as:

- drought;
- fire - either prescribed or wildfire;
- other acts of nature (flood, hail, tornado, blizzard, etc.);
- rangeland or other restoration activities; or,
- litigation or consultation needs.

They may also be used as an opportunity to achieve various rangeland management objectives by making use of the unobligated forage as a temporary supplement to, or replacement for, forage resources on active allotments.

17.12 - Designation of a Forage Reserve Allotment

If an allotment becomes vacant, the first decision should be to attempt to restock it or to combine it with an adjacent active allotment. If these decisions are not feasible, then each allotment that becomes vacant should be evaluated for its potential for designation as a forage reserve allotment.

To change the designation for an allotment to a Forage Reserve, the area already contains a manageable amount and spatial distribution of suitable and capable acres as determined at the LMP level and site-specific environmental analysis.

The design criteria may need to be modified to specify how the allotment will now be managed as a Forage Reserve allotment, including: frequency of use, timing, allowable use, kind and class of livestock if pertinent, maintenance of improvements, etc.

For the sake of efficiency, environmental analysis for changing vacant allotments to forage reserve allotments or active allotments should be included with the environmental analysis for other adjacent and intermingled allotments on a watershed or landscape scale. This allows for a more comprehensive look at management options on all included allotments for fulltime or intermittent livestock grazing options.

17.13 - Implementation of Forage Reserve Allotments

When it is determined that a forage reserve allotment designation is appropriate, the following scenario should be used to implement the designation:

1. When an individual active allotment, or a portion of the available grazing capacity on an allotment, becomes vacant or available for reasons such as term grazing permit cancellation or waiver back to the United States, the potential for creation of a forage reserve allotment may exist.

2. In the case of single permittee allotments, potential designation of a pasture or all of the allotment as a forage reserve will be relatively simple. But within community allotments, complexity is increased and normally the available capacity would be reallocated to other term grazing permit holders authorized to graze the allotment. Normally a portion of a community allotment should not be designated as a forage reserve.

17.14 - Maintenance of Structural Improvements on Forage Reserve Allotments

Forage Reserve allotment designation should be approached with care because the continual maintenance of structural improvements will likely become an issue. In the absence of a third party agreement (or a volunteer), or a permittee temporarily authorized to make use of the Forage Reserve allotment (and therefore obligated to maintain improvements), the responsibility for maintenance will fall back on the Forest Service and must be completed to at least the same standards and timeliness required of term permit holders.

In the instance of an active allotment that becomes a Forage Reserve allotment, provide for maintenance of rangeland improvements. This may include assignment of maintenance responsibilities to permit holders on the adjacent allotments for shared fences, agreements with third parties, and/or other viable arrangements (such as with volunteers). In the instance of a vacant allotment that becomes a forage reserve, some other arrangement needs to be made so as to sustain the utility and life of the improvements; this may include agency maintenance requirements.

Maintenance responsibility for improvements not assigned to another term permit holder will be assigned to those parties authorized to make use of the Forage Reserve allotment under permit modification or temporary permits.

Range Betterment Funds can never be used for maintenance. Only appropriated funds may be used in the rare case where the agency is responsible for improvement maintenance.

17.15 - Third Party Arrangements

Wherever possible, institute an arrangement with a third party so that maintenance responsibility is assumed by that third party when the forage reserve allotment is not actually authorized for use.

Such an agreement may also contain provisions for management (such as rest periods, practices to enhance wildlife habitat, practices to improve or change trends of vegetation, etc.) or agreements to perform monitoring.

The type of agreement to be used depends on the entity assuming the responsibilities defined. If the entity has a pre-existing Memorandum Of Understanding (MOU) with the Forest Service, that MOU may need to be modified or an additional document executed. Work with Grants and Agreements personnel to determine the appropriate document.

17.2 - Management of Currently Available Forage Resources

Unobligated forage resources may temporarily become available through a variety of avenues. Where there is an appropriate project-level environmental analysis and decision that the forage on a specified area may be made available for use by authorized livestock, the opportunity may exist to use this forage under emergency or other circumstances.

When no current project-level environmental analysis and decision to make the forage available for authorized livestock use exists, the forage may still be made available in response to emergency situations. See FSH 2209.13, chapter 30, sec. 31.

Examples of emergency situations include, but are not limited to, instances where term permit holders are displaced by wildfire or other catastrophic weather events, response to newly listed ESA species or bighorn sheep forays, etc., and the need to respond to planned prescribed fire treatments (including pre-burn rest periods).

17.21 - Resource Protection or Permittee Convenience Non-Use Situations

In situations where an existing term grazing permit holder does not desire to use a permitted allotment for an extended period of time, or where the authorized officer determines that non-use is needed, they may enter into a resource protection non-use agreement, or may approve permittee convenience non-use as appropriate (FSH 2209.13, sec. 17).

When a project level environmental analysis and decision authorizes livestock grazing on an allotment and a permittee requests, and is approved for, permittee convenience non-use, the situation would be documented in the file. The non-use for the permit would be identified by AUMs and associated allotment and would be available for other needs or opportunities for the duration of the approved non-use for personal convenience.

This available capacity may then be authorized to other term grazing permittees on an annual basis through the annual authorization and bill for collection. Do not modify the existing term grazing permit.

In most cases it would not be appropriate to fill in behind a term grazing permittee in resource protection non-use simply because the non-use was approved in the first place to provide needed rest (such as during or following drought, wildfire, etc.). Forage production on allotments in resource protection non-use should not be considered to be available for allocation.

Maintenance of structural improvements would continue to be assigned to the existing term grazing permit holder except during those years when another permittee is authorized to use the allotment. The holder of the temporary authorization filling in behind permittee convenience non-use will be responsible for the maintenance of the assigned improvements.

17.22 - Vacant Allotment Situations

In many instances the authorized officer may choose to leave an allotment in vacant status rather than restock it. This may be because the allotment is marginal in terms of its ability to provide forage on a long-term sustained basis, or it may not be economically feasible to stock and manage on a long-term basis; there may be other reasons.

The authorized officer may also choose not to designate the allotment as a Forage Reserve allotment for various reasons, or because it is being considered for future stocking through the grant process (see FSH 2209.13 chapter 10, section 13.2).

In these situations, the vacant allotment may still be able to provide available forage if there is a current project-level environmental analysis and decision indicating that the area may be authorized for use and occupancy by permitted livestock.

The available forage on these vacant allotments may be temporarily authorized for livestock use to respond to an emergency need as described above. Authorization will be by annual authorization and bill for collection, not by modification of an existing term grazing permit.

18 - OFFICIAL ALLOTMENT (2210) FILES

This section contains direction on maintaining allotment records. This same discussion is found in FSH 2209.13 chapter 60 as part of the bigger discussion on how to organize all official rangeland management files. Section 63 describes the contents of 2210 allotment folders and how the files are organized.

There is usually only one copy of official allotment folders. Do not close them out and never purge the following information from the permanent paper 2210 allotment folder:

(a) Allotment boundary descriptions

(b) Old historic allotment maps

(c) Aerial photos

(d) Historic photos

(e) Allotment Analysis Summary Sheets

(f) Old historic production/utilization studies or other long-term monitoring data

(g) Old historic allotment management plans

(h) Chronological actual use records

All backup files must then also be kept current.

18.1 - Authority and Responsibility for Maintenance of Allotment Files

The authorized officer shall establish official paper copy and electronic files for each individual allotment, regardless of status, under their jurisdiction. The official active, forage reserve, and vacant allotment files shall be maintained as long as the allotment continues to exist as a designated distinct management unit.

The authorized officer will maintain all paper copy and electronic records for closed or combined allotments as permanent records.

This requirement may also pertain to other permanent records including general resource areas outside of allotments, big game ranges, wild horse and burro territories, outfitter and guide authorized use areas, exclosures, etc.

Over time, more records will be retained in an electronic environment, but the official record copy of correspondence, files, and other documents created by the Forest Service is the paper copy (FSM 6230 and FSH 6209.11).

18.11 - Authority and Responsibility for Grazing Association Files

While all grazing associations must maintain 2230 folders for all of their members, they are also encouraged to maintain separate 2210 allotment folders since they carry out many duties regarding allotment management and monitoring.

Associations are encouraged to organize their allotment folders in the same manner as the agency allotment folders. A few associations maintain electronic permit and allotment records in addition to the hard copy folders.

18.2 - Location of the Official Allotment Files

The official paper copy allotment file shall be located at the authorized officer's duty station.

An unofficial or working paper copy file may be maintained elsewhere to facilitate management and is useful in the event that the official file is lost or destroyed.
The official paper copy allotment file is the only permanent record of long-term management related to an allotment. It is important that all key documents, letters, and other records related to an allotment be retained in the official files for that allotment.

The record should be purged on occasion to eliminate paper records that do not contribute significantly to an understanding regarding management and outcomes for the allotment (e.g. informal notes setting meeting dates, etc.). See FSH 2209.13, chapter 60 for records management.

Correspondence that is created and stored as electronic files, and that has implications to management and historical reference, shall also be retained in the official file as a hard copy with signatures.

With the rapid change in technology, both in hardware platforms and software applications, the ability to maintain, retain, and access accurate long-term electronic records diminishes with time; therefore, the authorized officer will retain essential historical information as part of the official permanent paper file.

18.3 - Organization of the Official Allotment Files

Each allotment will have a 6-section file folder designated as 2210, Allotment Case Files (see FSH 6209.11, chapter 40). The information should be filed in the following format, as applicable (Exhibit 01).

18.3 - Exhibit 01

2210 - Allotment Files (All Regions)*

Side 1	Side 2
Allotment Management Plans (retain previous AMPs under current AMP) Allotment Boundary Descriptions Grazing Capacity Determinations	Allotment Maps (latest on top) Analysis Summary Sheet(s) Analysis Transect Data
Side 3	**Side 4**
Annual Operating Instructions (retain last few years under current – move older AOIs to Historical Folder, if needed)	Modifications for improvement work (moved here from 2230 permit folder once completed, or to the 2240 folder if preferred) Range Improvement Summary Sheet(s)
Side 5	**Side 6**
Planning Documents (allotment environmental analysis and decisions and project-level for individual improvements; large analysis documents are filed electronically in environmental analysis and decision project folders) Implementation Monitoring Records Actual Use Records	Correspondence

* For national grassland and national forest units issuing grazing agreements, Associations keep similar 2210 folders for each allotment.

All implementation and compliance monitoring should be maintained with effectiveness monitoring as the combination of these data sets is invaluable for making management decisions. Implementation monitoring includes, but is not limited to, annual indicators such as utilization/stubble height, inspection reports and photos, actual use, staff field notes and emails by year. This should be made available to the permittee.

Effectiveness monitoring includes, but is not limited to, analysis summary sheets including grazing capacity estimates and calculations, production/utilization surveys, Parker summaries and data sheets, current monitoring such as cover-frequency data sheets and summaries.

All Permanent Transect Records (such as inventory or long-term monitoring plots) may need to be maintained in separate folders because of their size. An electronic copy of these documents

on a Forest Service server is a good way to back up these documents for future use. All backup files must also be kept current. The current file folder should contain all recent records. All older records should be moved to a Historical Folder set up in the same format as described above, and labeled, for example: "Porcupine Creek Allotment 1997-2005".

18.4 - Electronic Records and Data Systems

Corporate electronic data systems include databases (such as NRM, INFRA, RIMS, FACTS), information management systems, and geographic information systems (GIS) functioning within the corporate environment to support rangeland and allotment management.

Most of the information noted below currently resides in corporate data systems. At a minimum, and where appropriate, these records should also become part of the official allotment file. These records provide a link between the official allotments or project file and electronic information, ensure a complete historical record, and ensure that allotment or project information is retained as data systems are upgraded.

The Rangeland Information and Management System (RIMS) stores and manages information primarily related to the grazing allotment. For each allotment, RIMS contains data for pastures; improvements; permits; permitted, authorized, and actual grazing use; grazing capacity; inventory and analysis data; environmental analysis and decisions; management objectives; and monitoring data. Each allotment screen also contains the status of an allotment, acres meeting or moving toward desired conditions; acres managed to standard; and cost, ownership, and maintenance of structural improvements.

RIMS provides direct linkage to Geographic Information Systems (GIS) to further the applications of the data.

18.5 - Geographic Information Systems (GIS)

Allotment management and associated rangeland management spatial information is stored, managed, and displayed in part using GIS.

The authorized officer is responsible for ensuring that rangeland and allotment management related information is maintained in GIS consistent with established standards.

Paper records and printed maps of GIS information will be filed as part of the permanent allotment records.

References and instructions in the use of corporate data systems and GIS are available through online help systems, agency intranet websites, and technical reference guides. These are updated and maintained to reflect system changes and enhancements as they occur.

At a minimum, existing GIS records should be completed and available for each Ranger District that display:

1. Allotment layer – show allotment boundaries for all allotments -- active, forage reserve, vacant, and closed. Wild horse and burro territories may also be displayed when applicable.

   All land ownerships within the allotment shall be displayed on the allotment layer – private, tribal, State, other agency – because all or most of these other owned lands are frequently permitted for grazing use by the Forest Service.

2. Pasture layer – show all pasture boundaries (whether fenced, natural barrier like a ridgetop or cliff face, debris pile or brush fence, etc.).

   In the case of sheep or dual-use allotments, pastures in this instance are often defined as a sub-watershed or other logical management (routing) unit for the sheep. These might be considered synonymous with camps or herd areas (e.g. the area to be used by the sheep when the herder is operating out of one or more multi-night herder camps).

   All land ownerships within each pasture shall also be displayed because all or most of these other owned lands are frequently permitted for grazing use by the Forest Service.

A GIS layer which displays the location of rangeland improvements on each Ranger District is also important. Data showing the location of Rangeland improvements is used to show assigned maintenance responsibilities for each permit holder.

3. Structural improvement layer – show all fences, water developments, corrals or other livestock handling facilities, and line cabins (cow camps). Display natural barriers simply to show where boundary or drift fences do not exist. Structural improvements should be displayed on the GIS layer regardless of ownership, provided that they are integral to the management of the allotment.

   Include private land boundary fences, line cabins owned by the permittee (if used in management of the allotment), water sources on adjacent land that water the allotment, etc.

   Show cattleguards and gates even if the maintenance of those improvements is the responsibility of engineering. Also show exclusion fencing (around campgrounds, special interest areas, administrative or monitoring sites, etc.) even if the maintenance responsibility for those improvements is assigned to some other group or functional area.

Another important layer to create for internal use is one showing the unit's important permanent monitoring sites, and which relates closely to allotment and rangeland vegetation management.

4. Permanent Monitoring Site Layer – show all important permanent monitoring sites (plots, transects, key areas, etc.) regardless of functional area managing the data collections.
From the rangeland management standpoint, include all historic Parker 3-step clusters as well as all benchmark sites, points, plots, transects, exclosures, camera points, etc. used in evaluation and management of rangelands.

Also, show all forest management permanent monitoring points along with those established by forest health, forest inventory, TEUI (soils), hydrology, T&E habitat, fire, etc.

Ensure that all points, polygons, or lines shown on GIS relate back to the appropriate database where the data is stored. This is critical if the actual data associated with the monitoring site needs to be accessed for use along with the GIS information.

Individual units may consider developing other associated GIS layers, such as roads and trails, digital elevation modules, or wetlands inventories, as critical components of any modeling exercise conducted for rangeland analysis. Roadless areas, wilderness areas, wilderness study areas, recommended wilderness, wild and scenic rivers, or eligible and suitable study rivers might also be added to portray different required methods for improvement maintenance in different areas. 18.6 - Records Retention and Disposal

Electronic records in the corporate databases are periodically archived for electronic storage and maintenance in accordance with applicable guidelines and requirements.

The official paper allotment record shall be retained as a permanent record as discussed by FSH 2209.13, chapter 60 and as directed in FSH 6209.11, chapter 30. Time frames and methods for disposal of records are also found in FSH 6209.11, chapter 30.