Chapter 2 - Alternatives

This chapter describes and compares the alternatives considered for the Burk & Molina Springs, Big Lake and Bush Creek Allotment Analysis project. It includes a description and map of each alternative considered. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public. Some of the information used to compare the alternatives is based upon the design of the alternative and some of the information is based upon the environmental, social and economic effects of implementing each alternative.

Alternatives Considered but Eliminated from Detailed Study

No additional alternatives were identified or proposed by members of the publics or permittees during public scoping.

Alternatives which included various water developments and riparian fencing to achieve desired conditions were discussed. These were included as adaptive management measures in Alternative 2 described later in Detailed Alternatives. The Interdisciplinary Team felt that the desired conditions for the allotments can be addressed by managing the timing, intensity and duration of livestock grazing on the allotments and implementation of adaptive management measures as needed.

According to guidance in Forest Service Handbook (FSH) 2209.13 92.31, the Grazing Permit Administration Handbook: "Current management would also be analyzed in detail as an alternative to the proposed action if current management meets the stated purpose and need for action". Current management was not analyzed in detail as an alternative for the allotments. Current management is not moving quickly enough to achieve desired conditions for riparian, soil and vegetative conditions on selected areas of the allotments.

Detailed Alternatives

Alternative 1

No Action - (No grazing)

This alternative will not allow permitted livestock grazing on the four allotments during a ten-year period from the date the Decision Notice is signed. No new grazing permit will be issued. Wild ungulate grazing is expected to continue during this ten-year period. Existing allotment boundary fences will not be removed. Remaining allotment boundary fence maintenance responsibilities from the four allotments will be re-distributed to adjacent permit holders. However, on the Big Lake allotment, the allotment boundary fence, from the southeast corner of Blanca Cienega pasture to the southwest corner of Mandan pasture will be removed (Map 2). This portion of boundary fence is no longer needed since there are no active adjacent allotments. Interior fences and other structural range developments may be removed for wildlife benefit. Upland water developments may be maintained on an opportunity basis.

Alternative 2

The Proposed Action

The Springerville Ranger District, Apache-Sitgreaves National Forests, proposes to authorize incidental livestock use on the Big Lake Allotment after 5 years of rest, and continue to authorize seasonal livestock grazing for the Burk and Molina Springs Allotments. The Alpine Ranger District proposes to authorize seasonal livestock grazing on the Bush Creek Allotment. Authorization would be under the following terms:

Big Lake Allotment:

Authorization

1. Livestock use will be unallocated under the term grazing permit system.

2. Incidental Use: Following 5 years of rest and only after riparian conditions within the allotment are determined to be satisfactory, limited livestock grazing could be considered in a manner that maintains these conditions. It is the intent to allow only occasional livestock grazing when the use of the allotment will facilitate improved resource conditions which will result in enhanced fish and wildlife habitat on other allotments.

3. Re-allocation: Following 5 years of rest, should desired riparian conditions be achieved and herbaceous understory production and range condition and trend be improved in the uplands, by either direct management or natural events (such as a landscape scale fire), consideration may be given to placing the allotment back into domestic livestock grazing under the term grazing permit system. Any reallocation of the forage resources would require additional National Environmental Policy Act (NEPA) analysis and associated decision.

4. Incidental use would be allowed with the following stipulations:

- Riparian areas are critical areas on the Big Lake allotment. A management guideline of conservative use (30-40%) in all riparian areas during the livestock grazing season will be employed to improve riparian/wetland, soil and watershed and vegetative condition. Conservative use will provide riparian vegetation of adequate height and cover to protect soil surfaces and dissipate energy during overland flows.

- A management guideline of conservative use (30 - 40%) in the uplands as measured at the end of the grazing season will be employed to improve vegetative and soil conditions.

- The grazing period for incidental use would be based upon weather/climate conditions, current growing conditions and the need to provide for plant regrowth following grazing. The grazing period will consider and manage for the desired conditions. Incidental use could occur anytime between mid-June through the end of October.

- Incidental use of livestock grazing would be authorized under favorable climatic and vegetative growth conditions and will be limited to 368 AUMs annually.

Burk Allotment:

Authorization

1. Riparian areas are critical areas on the Burk allotment. A management guideline of conservative use (30-40%) in all riparian areas during the livestock grazing season will be employed to improve riparian/wetland, soil and watershed and vegetative condition. Conservative use will provide riparian vegetation of adequate height and cover to protect soil surfaces and dissipate energy during overland flows.

2. A management guideline of conservative use (30 - 40%) in the uplands as measured at the end of the grazing season will be employed to improve vegetative and soil conditions.

3. The grazing period within the allotment will be based upon weather/climate conditions, current growing conditions and the need to provide for plant re-growth following grazing. The length of the grazing period within each pasture will consider and manage for the desired conditions. The on-date will be when range readiness has been met, which is typically June 15 – July 1 for the spring and summer grazing. The off date would generally occur on or prior to October 31.

4. Grazing will occur through a system which allows for plant growth and recovery. A rest rotation system is the primary system expected to meet desired conditions. Other systems may be employed to facilitate specific resource objectives. Pasture rotations will be planned at the beginning of each grazing year and will be continually modified through adaptive management in response to changing resource conditions.

5. Permitted livestock numbers will vary between 805 to 1,145 AUMs annually. The maximum number of 1,145 AUMs would be supported during times of favorable climatic conditions, having abundant vegetative growth, and/or when desired conditions are met.

6. Annual authorized livestock numbers will be based on range readiness, existing conditions, available water and forage, and predicted forage production for the year. Adjustments to the annual authorized livestock numbers (not to exceed 1145 AUMs) may occur during the grazing year, based on favorable conditions or may be adjusted downward if conditions are not favorable, such as in the case of drought, insects or other environmental factors.

7. Generally pastures will be grazed only once during the grazing year. However, if the need arises to provide rest or deferment for other pastures, a pasture may be used twice provided there has been sufficient vegetative growth/re-growth and grazing is managed to meet the desired conditions specified above.

Burk Allotment:

Adaptive Management Options

The following adaptive management options may be implemented if monitoring indicates that the authorized management described above for the Burk Allotment is not meeting desired conditions, or to address localized resource issues.

1. If desired vegetative conditions are not met in riparian areas, apply a herder to move livestock out of riparian areas.

2. If riparian vegetation height and cover is not sufficient to protect soil surfaces and dissipate energy during overland flows within the riparian areas: Create a riparian pasture within SU pasture to provide greater control of livestock use within critical riparian areas. Concurrently construct water developments in the non-riparian portion of SU pasture to provide livestock watering. The objective is to reduce livestock concentration in the riparian bottoms and allow more effective use of the uplands.

3. Construct riparian pasture fencing at Seven Springs Draw.

4. Develop the following upland waters if needed to improve livestock distribution:

- Develop upland waters in north end of East and West pastures near Seven Springs. i.e extend existing Seven Springs development.
- Develop Little Spring in West pasture or develop Turkey Draw Spring (located on Udall allotment).
- Develop a trick tank in the southern end of East pasture.
- Develop a trick tank in Railroad pasture.
- Develop upland waters in SU pasture.

Molina Springs Allotment

Authorization

1. A management guideline of conservative use of 30 - 40% in the uplands as measured at the end of the grazing season will be employed to improve vegetative and soil conditions.

2. The length of the grazing period within each pasture will consider and manage for the desired conditions. Livestock grazing will occur during the portion of the dormant season from mid-October to mid-December every other year for approximately 60 days. The allotment would be rested from livestock grazing in alternating years.

3. In the years in which it is grazed, grazing will occur through a system which allows for plant growth and recovery. A deferred rotation system during the dormant season is expected to meet desired conditions. Other systems may be employed to facilitate specific resource objectives.

4. Permitted livestock numbers will vary between 303 to 407 AUMs annually. The maximum number of 407 AUMs would be supported during times of favorable climatic conditions, having abundant vegetative growth, and/or when desired conditions are met.

5. Annual authorized livestock numbers will be based on existing conditions, available water and forage, and predicted forage production for the year. Adjustments to the annual authorized livestock numbers (not to exceed 407 AUMs) may occur during the grazing year, based on favorable conditions or may be adjusted downward if conditions are not favorable, such as in the case of drought, insects or other environmental factors.

6. Generally pastures will be grazed only once during the grazing year. However, if the need arises to provide rest or deferment for other pastures, a pasture may be used twice provided grazing is managed to meet the desired conditions specified above.

Molina Springs Allotment

Adaptive Management Options

The following adaptive management options may be implemented if monitoring indicates that authorized management described above for the Molina Springs Allotment is not meeting desired conditions. The adaptive management options below may also be implemented if it is determined that their implementation would accelerate achievement of desired conditions.

1. Restore grassland condition by removal of encroaching woodland (pinyon/juniper).

2. Develop the following upland waters if needed to improve livestock distribution:

- Repair existing water lines and drinking facilities in South Pasture.

- Reconstruct Molina Spring. Set up a storage tank and construct distribution lines.

Bush Creek Allotment

Authorization

1. A management guideline of conservative use of 30-40% in the uplands as measured at the end of the grazing season will be employed to improve vegetative and soil conditions.

2. The length of the grazing period within each pasture will consider and manage for the desired conditions. Generally, the livestock grazing season is expected to run between November and April for a total of approximately 141 days.

3. Grazing will occur through a system which allows for plant growth and recovery. A deferred rotation system during the dormant season is expected to meet desired conditions.

4. Permitted livestock numbers will vary between 11 and 27 AUMs annually. The maximum number of 27 AUMs would be supported during times of favorable climatic conditions, having abundant vegetative growth, and/or when desired conditions are met.

5. Annual authorized livestock numbers will be based on existing conditions, available water and forage, and predicted forage production for the year. Adjustments to the annual authorized livestock numbers (not to exceed 27 AUMs) may occur during the grazing year, based on favorable conditions or may be adjusted downward if conditions are not favorable, such as in the case of drought, insects or other environmental factors.

6. Livestock grazing in the riparian area of the Bush pasture will be deferred until the existing dike along Bush Creek is addressed.

7. Erosion control measures will be added on the trailing area within the allotment.

8. Maintain the health and vigor of riparian obligate species in Steeple Creek in order to develop woody debris.

Bush Creek Allotment

Adaptive Management Options

The following adaptive management option may be implemented if monitoring indicates that the authorized management described above for the Bush Creek Allotment is not meeting desired conditions.

1. Construct a Trick Tank on upper elevation of the Mountain Pasture.

Resource Protection Measures for All Allotments

The proposed action is designed to comply with Forest Plan standards and guidelines, as amended. Authorization and adaptive management options are incorporated into the project to protect forest resources of soil, water, wildlife, riparian and aquatic habitat. Best management practices from various sources have been incorporated into the authorization, monitoring, adaptive management options and mitigation measures for the proposal. These sources include Arizona Department of Environmental Quality, Apache-Sitgreaves Land Management Plan, Forest Service Handbook 2509.22 (R3 Soil and Watershed Conservation Practices Handbook), and other sources listed in the Specialist Report for Watershed, Hydrology, Riparian and Soils.

Mitigation Measures

The following mitigation measures will be applied to Alternative 2 (the Proposed Action).

- Necessary techniques will be used to achieve proper distribution or lessen the impact on sensitive areas. Practices include herding and salting. Utilize herding to encourage cattle to move out of the riparian areas to light use areas on the uplands. Place salt and supplements in uplands away from water and riparian areas. Move salt or mineral block to areas of light use or move them frequently.

- All proposed range facilities will be surveyed for threatened, endangered or sensitive species prior to any ground-disturbing activities. Facilities will be designed and constructed to have no adverse effect on listed species. Any new or reconstructed water developments will include wildlife access and escape ramps.

- All proposed range facilities will be surveyed for heritage resources prior to any ground-disturbing activities. Facilities will be built or modified to avoid impacts to sites. Range facilities will be located so as to avoid concentrations of livestock on identified heritage resource sites. If unrecorded sites are discovered during the course of project implementation, activities will cease and the Forest Archeologist will be notified. No salting will occur within or adjacent to identified heritage sites.

- Allow no livestock management activities (such as maintenance or construction of fencing or water developments) near the Crescent Lake Knoll Bald Eagle nest site during the nesting season (Feb.1-March 31) or until it is determined the nest site is unoccupied.

Comparison of Alternatives

This section provides a summary of the effects of implementing each alternative.

Table 1: Alternative Comparison

Purpose and Need	No Action Alternative	Proposed Action Alternative
Authorizes livestock grazing (purpose of project)	No	Yes
Consistent with Federal Laws and Regulations	Consistent	Consistent
Consistent with the Apache-Sitgreaves Forest Plan	Consistent	Consistent
Improves riparian condition toward proper functioning condition	Yes	Yes
Improves soil condition toward satisfactory	Yes	Yes
Improves vegetative condition and trends	Yes	Yes
Provides jobs and federal payments to counties	No	Yes