

# Chapter 1 – Purpose and Need

## Background

The Forest Service has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This Environmental Assessment discloses the direct, indirect, and cumulative environmental impacts that would result from the proposed action and alternatives. The document is organized into four parts:

- Chapter 1 – Purpose and Need: The section includes information on the history of the project proposal, the purpose of and need for the project, and the agency’s proposal for achieving that purpose and need. This section also details how the Forest Service informed the public of the proposal and how the public responded.
- Chapter 2 - Alternatives: This section provides a more detailed description of the agency’s proposed action as well as alternative methods for achieving the stated purpose. These alternatives were developed based on significant issues raised by the public and other agencies. This discussion also includes possible mitigation measures. Finally, this section provides a summary table of the environmental consequences associated with each alternative.
- Chapter 3 - Environmental Consequences: This section describes the environmental effects of implementing the proposed action and other alternatives. This analysis is organized by [insert topic (i.e., resource area, significant issues, environmental component)]. Within each section, the affected environment is described first, followed by the effects of the No Action Alternative that provides a baseline for evaluation and comparison of the other alternatives that follow.
- Chapter 4 – Consultation and Coordination: This section provides a list of preparers and agencies consulted during the development of the environmental assessment.
- Appendices: The appendices provide more detailed information to support the analyses presented in the environmental assessment.

Federal actions such as the authorization of grazing must be analyzed to determine potential environmental consequences pursuant to the National Environmental Policy Act of 1969 (NEPA) and the Rescission Act (P.L. 104-19, 1995). The Council on Environmental Quality regulations define an EA as a “concise public document” that “shall include brief discussions of the need for the proposal, discussion of environmental effects based on the substantive issues, and a listing of agencies and persons consulted (40 CFR 1508.9). In order to meet the intent of the regulations with respect to “concise” and “brief”, the text of this EA will contain references to the contents of the analysis record whenever possible. Throughout this EA, references to supporting documentation are shown in parentheses. For example, a reference “(PR #15)” would indicate that a specific passage in the EA is linked to information contained in document No. 15 in the project record. Supporting documentation, including more detailed analyses of project-area resources, may be found in the project planning record located at the Springerville Ranger District in Springerville, Arizona.

## Purpose and Need for Action

The Burk & Molina Springs, Big Lake and Bush Creek allotments contain lands identified as suitable for domestic livestock grazing in the Apache-Sitgreaves National Forests Plan. Where consistent with the goals, objectives, standards and guidelines of Land and Resource Management Plans, the Forest Service will make forage from lands suitable for grazing available to qualified livestock operators. This is in accordance with our Land Management Plan, the Multiple Use and Sustained Yield Act of 1960 and the Forest and Rangeland Renewable Resources Planning Act of 1974.

Although an area may be deemed suitable for use by livestock in a Land and Resource Management Plan, a project-level analysis evaluating the site-specific impacts of the grazing activity, in conformance with NEPA, is required in order to authorize livestock grazing on specific allotment(s).

The purpose of this proposed action is to authorize livestock grazing consistent with Federal laws and regulations and in a manner that maintains or improves project area resource conditions and achieves the objectives and desired conditions described in the Apache-Sitgreaves National Forests Land and Resource Management Plan.

For the allotments within this analysis the scope of the project is limited to the development of Allotment Management Plans (AMPs). The development of these plans include the determination of a range of permitted numbers of livestock, if any, season of use for permitted livestock, the class of livestock, facilities associated with livestock, allowable forage utilization levels, and associated clauses for a permit.

Analysis is needed here and now for the following reasons:

- There is a need for change from the current management. Current management is not resulting in conditions meeting Forest Plan standards or moving toward desired conditions for riparian/wetland, soil and watershed and vegetative condition in some areas of the allotments. Improved management should result in achievement of desired conditions in a shorter time span.
- There is a need to incorporate additional flexibility into the management of the allotments in order to allow the Forest Service and individual grazing permit holders to be able to adapt management to changing resource conditions or management objectives.

## Existing Conditions

### Description and Location

The Big Lake, Burk and Molina Springs Allotments are located on the Springerville Ranger District and the Bush Creek Allotment is located on the Alpine Ranger District of the Apache-Sitgreaves National Forests (Map 1).

The Big Lake Allotment (Map 2) is a 3,231 acre allotment, located in T6N, R28E, sections 21, 26-28, 33-35; and T5N, R28E, sections 2-4 and 11 of the Gila Salt River Base Meridian (GSRBM). The elevation ranges from 8,700 to 9,200 feet. Round Cienaga, Blanca Cienaga and Mandan pasture are predominantly forested and bisected by riparian drainages. Much of the forage in these pastures is located in the riparian drainages. Topography in forested areas generally ranges from 10-35% slope. Open grasslands and riparian areas within the allotment are generally flat. The allotment is currently in non-use status. The Term Grazing Permits were waived back to the Forest Service by the permittees on April 21, 2008.

The Burk Allotment (Map 3) is a 5,625 acre allotment consisting of four pastures – East, West, Railroad and SU pasture, located in T6N, R28E, sections 1-4, 16-21, 28-30; and T7N, R28E, sections 25-27, 34-36 of the GSRBM.. SU pasture was previously a part of the Big Lake Allotment. Railroad and SU pastures are not contiguous to the other two pastures. East and West pastures are bordered to the south by the Udall Allotment whereas Railroad and SU pastures are located directly northwest of the Big Lake Recreation Complex. The elevation ranges from 9,190 to 9,300 feet and is relatively flat. The topography on East and West Pastures is gently rolling open grassland with Seven Springs Draw running through the northwestern corner. OD Ridge is the major landform that runs along the southern portion of the allotment from east to west. Railroad pasture ranges from 9000 to 9,100 feet in elevation and is also predominately open grassland. SU pasture is predominantly open grassland and contains riparian drainages in the southwest portion of the pasture. The current season of use is May 16 – October 31 and the current permitted livestock number is 249 cow/calf pairs, or 1,394 Animal Unit Months (AUMs).

The Molina Springs Allotment (Map 4) is a winter allotment which consists of two pastures – North and South, located in T8N, R30E, Sections 3-5, 9, 10, 5-17, 20-22 of the GSRBM. The allotment is 3,338 acres in size and located approximately 6 miles east of Springerville, AZ. The elevation ranges from 7,300 to 7,700 feet and is relatively flat. The Allotment is approximately 55% forested (Pinyon-Juniper) and 45% grassland. The current season of use is dormant season (winter) and the current permitted livestock number is 200 cow/calf pairs or 407 AUMs. The allotment is grazed every other year.

The Bush Creek allotment (Map 5) is a small winter allotment located in T3N, R31E, sections 10, 11, 13, 14 of the GSRBM. It is 312 acres in size and consists of 3 pastures; Mountain, Bush and Steeple. It is located approximately 15 miles south of Alpine, AZ near the Blue Range Primitive area. The elevation ranges from 6000 to 6300 feet. Mountain and Bush pastures are predominantly pinyon juniper forest type. Sections of Bush Creek and Steeple Creek lie within the allotment. Steeple pasture contains a riparian area with riparian obligate species along Steeple Creek. The current season of use is seasonal (winter, early spring) and the current permitted livestock numbers are 4 head of horses or 23 AUMs.

## **Desired Conditions – Riparian**

- Attain proper functioning condition (Forest Plan “Satisfactory” riparian condition), where potential exists.
- Provide high plant vigor and adequate vegetative cover of deeply rooted plants such as sedges and rushes to protect soil surface from overland flow, where potential exists.
- Maintain vegetal stream bank cover
- Where potential exists, riparian woody plants are established and maintained in a healthy condition with a mix of age classes present.
- Minimize soil compaction, trampling damage.
- Springs have riparian species present, and the vegetation is in satisfactory condition. where potential exists,

## **Desired Condition Soil Condition**

- Vegetative ground cover is improving toward potential natural conditions. Provide livestock management strategies that will ensure the minimum or better ground cover by soil type to keep erosion rates below threshold levels.
- Provide livestock management strategies that will stabilize cutbanks and active gully erosion and minimize soil compaction where possible.
- Management strategies have maintained satisfactory watershed conditions, where feasible, on 6th code watersheds.
- Ensure Arizona Department of Environmental Quality (ADEQ) and Environmental Protection Agency (EPA) water quality standards are maintained.

## **Desired Conditions - Vegetation**

- Vegetative composition is improving and moving toward potential plant community. Where potential exists, the herbaceous vegetation is managed to achieve or maintain fair or better range conditions with static or upward trend or to maintain moderate to high similarity to potential natural communities (PNC) as described by Terrestrial Ecosystem Survey (TES).
- Proper utilization levels are in place to provide ground cover to keep soils stable and promote water infiltration.

## Difference between Existing and Desired Conditions:

- Riparian Condition: Some riparian areas rated in *unsatisfactory* condition occur on the Big Lake, Burk and Bush Creek Allotments. Desired condition is for all riparian areas on these allotments to be rated in satisfactory condition where potential exists.
- Bare Soil: In some areas of the allotments, the amount of bare soil is higher than desired. Desired condition is for minimum or better ground cover by soil type to keep erosion rates below threshold levels on the allotments.
- Vegetative Species Composition: In some areas of the allotments, an appropriate mix of cool and warm season species is lacking. A more natural distribution of cool and warm season species in the plant composition is desired within the allotments.

## Management Direction

The Apache-Sitgreaves National Forest Land and Resource Management Plan (Forest Plan) contains several standards, guidelines and goals that pertain to the rangeland resource. A selection of pertinent ones follows:

- Management direction for the rangeland resource is stated: "Provide a program of range management that emphasizes high quality range forage and improvements. Benefits are improved watershed conditions, improved range forage production, improved wildlife habitat, and enhanced visual quality"(pg. 15).
- "Continue livestock grazing with increased emphasis on recreation, wildlife and fishery resources, while maintaining basic soil and water values" (pg. 75).
- "Determine grazing capability for livestock in each riparian area. The objectives for each riparian area should include livestock use when consistent with other resource objectives and riparian recovery goals" (pg. 160).

The allotments fall within Forest Plan Management Areas 1-4, 11 and 15. Management emphasis for these areas is described below.

- **Management Area 1:** This area includes all of the suitable timber land as well as unsuitable timber lands outside special management areas. Management emphasis for Management Area 1 states; "Emphasize a combination of multiple uses including a sustained yield of timber and firewood production, wildlife habitat, livestock grazing, watershed, and dispersed recreation" (pg. 119).
- **Management Area 2:** The Woodland Management Area consists of pinyon, juniper (one seeded Utah Rocky Mountain) and Alligator. There is a wide variety of grass, forbs and shrubs in the understory. Management emphasis for Management Area 2 states; "Emphasize fuelwood production, wildlife habitat, watershed condition and livestock grazing. Other resources are managed in harmony with the emphasized resources" (pg. 145).

- **Management Area 3:** This area consists of geographically delineable areas with distinctive resource values and characteristics that are comprised of the aquatic and riparian ecosystems. Management emphasis for Management Area 3 (Riparian) states; "Recognize the importance and distinctive values of riparian areas when implementing management activities. Give preferential consideration to riparian area dependent resources in cases of unsolvable conflicts. Manage to maintain or improve riparian areas to satisfactory condition. Other resource uses and activities may occur to the extent that they support or do not adversely effects riparian dependent resources. (pg. 155).
- **Management Area 4:** Includes mountain grasslands, and desert and prairie grasslands which occur as inclusions in the woodland type. This area includes all grassland ecosystems on the forest occupied by less than 20% tree cover. Management emphasis for Management Area 4 (Grassland) states; "Emphasize wildlife habitat and visual quality, especially big game winter range" (pg. 165).
- **Management Area 11:** This management area includes the surface area of lakes and ponds, wetlands, and marshlands located on the forest. Management emphasis for Management Area 11 (Lakes and ponds) states; "Emphasize the production of fish and wildlife including waterfowl and managed the areas for dispersed recreation use" (pg. 205).
- **Management Area 15:** This management area includes a 14 mile segment of the West Fork of the Black River from the confluence of the East and West Forks of the Black River near Buffalo Crossing upstream to the forest boundary just south of the Mt. Baldy Wilderness. With the main stem of the Black River, this segment forms a continuous 30 mile river segment from the headwaters to the forest boundary. Management emphasis for Management Area 15, (East and West Fork of the Black River) states; "Emphasize a wide spectrum of recreation opportunities similar to that which currently exists. Manage to maintain or enhance the scenic quality of the corridor" (pg. 221).

### **Big Lake Allotment:**

The allotment falls within the Forest Plan Management Areas of 1, 3, 4 and 15.

Management Area 1 comprises the majority of the project area. These lands include a variety of vegetation types on lands with majority under 30% slopes. The area includes narrow stringers of riparian habitat (Management Area 3) primarily in the drainage bottoms. Management Area 4 includes the grassland with slopes of less than 10%. A small portion of the allotment falls within Management Area 15.

### **Burk Allotment:**

The allotment falls within the Forest Plan Management Areas of 1, 3, 4, 11 and 15.

The majority of the allotment lies with Management Area 4. Several drainages run through the allotment which includes Management area 3, Riparian. Management Area 1 comprises a small part of the project area. A small portion of Big Lake and Salt House Tank, Management Area 11 (Water), occur on the allotment. Management Area 15 is the

special management area of the East and West Fork of the Black River. The drainage below Big Lake Dam is a tributary to the East Fork of the Black River.

### **Molina Springs Allotment:**

The allotment falls almost exclusively within the Forest Plan Management Area 2. A small riparian area, Management Area 3, occurs within the allotment.

**Bush Creek Allotment:** The allotment falls within Forest Plan Management Areas of 1, 2 and 3.

### **Proposed Action**

The Springerville District Ranger, 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 District Ranger proposes to authorize livestock grazing on the Bush Creek Allotment. Authorized grazing would be at an appropriate level and timing that improves unsatisfactory resource conditions and fosters satisfactory resource conditions to maintain sustainability of the forage resource. Terms of authorization can be found later in this document in Chapter 2, Alternatives.

The new permits would include applicable clauses to ensure compliance with the Apache-Sitgreaves National Forest Land and Resource Management Plan (Forest Plan) and other applicable environmental laws. The permitted number of livestock and season of use are included in the Alternative descriptions. Adaptive management measures are also described in the Alternatives Section of the document. Heritage resource clearances will be conducted prior to the initiation of projects when required.

### **Decision Framework**

Based on the environmental analysis in this EA, the District Ranger of the Springerville Ranger District is the official responsible for selecting an alternative for the management of the Big Lake, Burk and Molina Springs Allotments. The District Ranger of the Alpine Ranger District is the responsible official for the Bush Creek Allotment. If an action alternative is selected, the respective District Ranger will decide on a range of permitted number of animals, season of use, class of livestock, the grazing schedule for livestock movements, allowable forage utilization guidelines, permit clauses to bring grazing into compliance with the Forest Plan, and adaptive management measures to improve distribution, use of the range and to mitigate adverse impacts.

### **Public Involvement**

The proposal was listed in the Schedule of Proposed Actions (SOPA) in 2005 and is listed on the current SOPA. The public and other agencies were invited to help in development of the proposed action in letters dated May 28, 2008 and June 20, 2008. The letters which included a Draft Proposed Action were sent to 101 interested parties. Numerous meetings were held and attended by the Arizona Game and Fish Department and a representative of the Apache Natural Resource Conservation District. Permittees were also involved in development of the proposed action.

Using the comments from the public and other agencies, (see Issues section), the interdisciplinary team developed a list of issues to address.

## **Issues**

Three comment letters were received from external publics in the public involvement process. The Interdisciplinary Team reviewed these comments. Analysis of comments received from the public is available in the project record.

## **Key Issues**

No key issues were identified from the public involvement process.

The Interdisciplinary Team for the analysis identified the following key resource concerns to be carried forth in this analysis:

Riparian condition – Some riparian areas on the allotment are currently rated as unsatisfactory for various reasons, but primarily the need for more riparian species with root masses capable of dissipating high energy flows. In addition, vegetation of sufficient height prior to spring snowmelt is needed to dissipate the energy from overland flows.

Soil Condition – Some upland areas currently have bare ground in amounts greater than desired. (Soil condition in the riparian areas will be addressed as part of riparian condition).

Vegetative Condition – Some upland areas of the allotment lack an appropriate mix of cool and warm season species composition. (Species composition in riparian areas will be addressed as part of riparian condition).

Project design features and mitigation measures have been developed to address these concerns. Effects will be addressed in the Riparian, Watershed/Hydrology & Soil Condition, and Vegetation section of Chapter 3 (Environmental Consequences) of this document.

## **Non-Significant Issue**

**I. Economics/Social** – This issue was determined to be non-significant. However, this issue is required by CEQ regulations and will be discussed as part of this analysis.

There is concern about the social / economic impacts of the proposal to the general public, local communities, the permittees and those dependent upon livestock operations for support. Some families rely on income from livestock operations for their sole support while others have second jobs to supplement their income.

The non-significant Economics/Social issue will be measured by:

- Economic contributions to the local economy.
- The number of direct and indirect jobs provided (#jobs).
- Grazing Fee Receipts (dollars).