



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Colorado River District  
2610 Sweetwater Avenue  
Lake Havasu City, Arizona 86406-9071  
[www.blm.gov/az/](http://www.blm.gov/az/)



June 30, 2015

In Reply Refer To:  
4100 (AZC010)

Mr. Charles W. (Bill) Hamilton  
c/o HC 37  
7690 West Quail Springs Road  
Dolan Springs, AZ 86441

Laura Pendley  
7690 W. Quail Ranch Road  
Dolan Springs, AZ 86441

**NOTICE OF PROPOSED DECISION**  
For  
**Cerbat, Quail Springs, and Fort MacEwen**  
**Proposed Grazing Management Plan and Permit Renewal**  
**Environmental Assessment**  
**DOI-BLM-AZ-C010-2015-0029-EA**

Dear Mr. Hamilton

### **A. INTRODUCTION**

The Cerbat, Quail Springs, and Fort MacEwen (CQFM) Proposed Grazing Management Plan and Permit Renewal Environmental Assessment (EA) provided a “hard look” analysis in that:

- 1) The analysis integrated environmental, and socioeconomic objectives along with consideration of federal, state, and other existing authorities,
- 2) Impacts from the past to the present and over the next ten years, or the life of the permit, were considered. Specific considerations were evaluated for plants and animals within the CQFM Allotments that require additional protection and for cumulative effects from other actions,
- 3) Scoping occurred throughout the process, beginning before the development of this EA, up through the current time to include the BLM interdisciplinary team, the BLM Arizona Resource Advisory Council (RAC), the Mohave Livestock Association (MLA), Arizona Game and Fish Department (AZGFD), Arizona Cattle Growers, Natural Resource Conservation Service (NRCS), local ranchers, the permittee, Western Watersheds Project, and public.

- 4) In the methods considered and proposed, there are recommendations for flexibility, plans to protect the environment, commitments to restore areas that are currently not meeting Rangeland Health Standards, and efforts that when implemented can sustain multiple-use and sustained yield that can promote productive harmony between people and nature.

A Finding of No Significant Impact (FONSI), dated 6-30-2015, found the Proposed Action and alternatives analyzed in the 2015 CQFM EA did not constitute a major Federal action that would adversely impact the quality of the human environment. Therefore, an Environmental Impact Statement (EIS) will not be prepared.

## **B. BACKGROUND**

The Secretary of Interior approved Arizona's Standards for Rangeland Health and Guidelines (Rangeland Health Standards) for Grazing Administration in April 1997. The Decision Record for that document was signed by the Bureau of Land Management (BLM) State Director in April 1997 and it provides for full implementation of the Rangeland Health Standards in Arizona BLM Land Use Plans.

In order to avoid disruption to livestock grazing operations dependent on public land permits Congress has annually legislated a means to continue authorizing livestock grazing while the BLM analyzes environmental impacts through an appropriate evaluation and NEPA analysis. BLM renewed the permits with the same terms and conditions pursuant to Section 426 of Public Law 111-88, pending compliance with applicable laws and regulations for a 10-year term beginning October 1, 2009.

In 2009 you were notified that the Cerbat (00020), Quail Springs (00062), and Fort MacEwen Unit A (00034) Allotments, collectively known as the "CQFM Allotments," would be assessed and evaluated during fiscal year 2010 to determine if resource conditions were meeting the Rangeland Health Standards and Kingman Resource Management Plan objectives. On March 20, 2010 the Kingman Field Office (KFO) sent you the completed rangeland health assessment titled *Cerbat, Quail Springs, and Fort MacEwen Allotments Rangeland Health Evaluation* (USDI BLM 2010) (Rangeland Health Evaluation) as well as to other Federal and State agencies and the interested public for a 15-day review and comment period. In general it was found that some of the Rangeland Health Standards were not met at all the key areas on all the allotments.

The Cerbat, Quail Springs, and Fort MacEwen Proposed Grazing Management Plan and Permit Renewal (DOI-BLM-AZ-C010-2015-0029-EA) (2015 CQFM EA) is a revision to the following documents:

- 1) The Cerbat, Quail Springs, and Fort MacEwen Allotments Grazing Permit Renewal EA Released – 2013 (DOI-BLM-AZ-C010-2011-0017-EA) and
- 2) The Cerbat, Quail Springs, and Fort MacEwen Allotments Proposed Grazing Permit Renewal EA Released – 2014 (DOI-BLM-AZ-C010-2014-0036-EA).

The revision was completed as part of BLM’s commitment to involve the public (including the permittee, other agencies, the RAC, etc.) through additional scoping to insure that comments were adequately addressed and resolved.

**C. PROPOSED DECISION**

In accordance with 43 Code of Federal Regulations (CFR) 4130.3, 4130.3-2, and 4130.3-3 and based on the 2010 Rangeland Health Evaluation, analysis in the 2015 CQFM EA, and with consideration of public comments, it is my Proposed Decision to modify the terms and conditions of the Cerbat (#0202019), Quail Springs (#0202065), and Fort MacEwen (#0202035) permits with the following elements:

**1. Mandatory Terms and Conditions**

Livestock management will be conducted in accordance with the following Terms and Conditions:

Number of Livestock: The total number of livestock permitted under the Cerbat Black Grazing Environmental Impact Statement (EIS) and the Kingman Resource Area Management Plan and EIS for the CQFM Allotments is 578 Animal Units (AUs). The total number of active AUs is 458 using the Desired Stocking Rate Formula. Calculations for the stocking rate analysis are available at the Kingman Field Office (KFO). After applying a rotation and as a result of pasture production differences, there are three AUs less. Consequently the initial stocking rate would be 455 AUs.

The difference between 578 AUs and 455 AUs (123 AUs) would be placed in conservation use and would remain such until monitoring indicates otherwise.

Table 1. Number and kind of livestock, and Animal Unit Months (AUM’s) by Allotment.

CERBAT	Livestock Livestock Kind		Period of Use	% Public Use	Type Use	Use in AUMs
From	175	Cattle	03/01 to 02/28	93%	Active	1,953
To	91	Cattle	03/01 to 02/28	93%	Active	1,015

QUAIL SPRINGS	Livestock Livestock Kind		Period of Use	% Public Use	Type Use	Use in AUMs
From	242	Cattle	03/01 to 02/28	90%	Active	2,614
To	215	Cattle	03/01 to 02/28	90%	Active	2,322
From	19	Cattle	03/01 to 02/28	90%	Active	205
To	15	Horses*	03/01 to 02/28	90%	Active	205

FORT MACEWEN	Livestock Livestock Kind		Period of Use	% Public Use	Type Use	Use in AUMs
From	161	Cattle	03/01 to 02/28	93%	Active	1,796
To	130	Cattle	03/01 to 02/28	76%	Active	1,186

\*Kind of Livestock: A total of 15 AUs for horses would be authorized on the Quail Springs Allotment which is included in the 455 AUs. Horses would be authorized in the Quail Springs and Big Wash Pastures. Due to the physiological differences between horses and cattle, horses require more forage to maintain their body weight than cattle; one horse equals 1.25 AUs. Thus 15 horses x 1.25 = 19 AU's and therefore 19 cattle AUs would be needed to support 15 horses.

Amount of Use in Animal Unit Months (AUMS) for the CQFM allotment complex will be adjusted as follows:

From:	<u>Kind of Livestock</u>	<u>Total</u>	<u>Suspended Use</u>	<u>Conservation Non-use</u>	<u>Active Use</u>
	Cattle	7,090	745	0	6,345
To:	<u>Kind of Livestock</u>	<u>Total</u>	<u>Suspended Use</u>	<u>Conservation Non-use</u>	<u>Active Use</u>
	Cattle	6,885	745	1,370	4,770
	Horses	205	0	0	205
	Total =	7,090	745	1,370	4,975

## 2. Livestock Grazing Management

A new Adaptive Allotment Management Plan (AAMP) will be implemented using the principals of adaptive management as described below:

- Adaptive management with...
  - Monitoring (Using Observations and Triggers),
  - Management Changes (Using Monitoring Findings and Climate Predictions) and
  - Range Improvements
  - Season of Use
- Renewal of three 10-year term grazing permits (one per allotment)
- Communications

### Adaptive Management

Adaptive management is an iterative learning process which promotes improved understanding and improved management decision making over time; it emphasizes responsiveness to monitoring outcomes and underscores a collaborative process in order to achieve land health objectives. The Department of Interior has offered the following operational definition of adaptive management:

*Adaptive management [is a decision process that] promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood. Careful monitoring of these outcomes both advances scientific understanding and helps adjust policies or operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. It is not a 'trial and error' process, but rather emphasizes learning while doing. Adaptive management does not represent an end in itself, but rather a means to more effective decisions and enhanced benefits. Its true measure is in how well it helps meet environmental, social, and economic goals, increases scientific knowledge, and reduces tensions among stakeholders.*

Effective monitoring is essential to adaptive management. It provides the data with which to assess resource conditions, determine if objectives are being met, and periodically refine and update desired conditions and management strategies. If monitoring indicates that desired conditions are not being achieved and livestock grazing practices are causing non-attainment of resource objectives, livestock grazing management on the allotment will be modified in consultation with the permittee. Knowing that uncertainties exist in managing for sustainable ecosystems, changes to the rotation schedule may be authorized for reasons such as, but not limited to:

- Adjust the rotation/timing of grazing based on previous year's monitoring and current year's climatic conditions.
- Drought causing lack of water and forage in certain areas originally scheduled to be used, and
- Changes in use periods to balance utilization levels in pastures.

Flexibility is authorized and changes in rotations will continue to meet resource objectives. Flexibility is dependent upon the demonstrated stewardship and cooperation of the permittee. Rangeland monitoring is a key component of adaptive management. When monitoring indicates changes in grazing management are needed to achieve resource objectives, they will be implemented by working with the permittee.

### **Triggers**

Triggers are used in the CQFM AAMP to identify the threshold of attributes (utilization levels, cover, frequency, composition of species, etc.) being measured. When thresholds are approached, management responses can be taken to avoid the thresholds being met or exceeded (see soft triggers; Table 8 from the CQFM EA, provided at end of document). If thresholds are met or exceeded, specific actions would be necessary to avoid not meeting the standards of rangeland health (see hard triggers; Table 8 from the CQFM EA, provided at end of document). The purpose of monitoring for triggers is to accomplish the goals/objectives of the CQFM EA, as referenced below:

Goals/Objectives, taken from the CQFM EA:

Goal 1: The public land grazing allotments are managed for an economically viable ranch while meeting environmental objectives.

Goal 2: Grazing allotments are managed through partnerships to leverage available funding for new range improvements and to accomplish NEPA clearances required for range improvement implementation.

Goal 3: BLM responsibilities under Federal Land Policy and Management Act (1976) for managing public land under the principles of multiple-use and sustained yield are upheld throughout the grazing permit renewal process.

Goal 4: Adaptive management is followed when making changes to the grazing plan, stocking rate, and range improvements.

Objective 1: The allotment will be managed to achieve the Arizona Standards for Rangeland Health (USDI BLM 1997).

Objective 2: Utilization Criteria will limit either 40% or 50% use by cattle, burro, and/or wildlife depending on location within the CQFM. All key species, at key areas outside of the Joint Use Area of the Black Mountain Ecosystem, will have a 50% utilization limit. Inside the Joint Use Area the utilization limit will be 40%. The key areas located in the Joint Use Area are 8, 11, 18, 20, and 21 (Figure 15: Map 11, at end of document).

Triggers are a pre-negotiated commitment within an adaptive-management or mitigation plan that specifies what actions will be taken if monitoring results reveal particular resource outcomes. Adaptive Management approaches can identify both soft and hard triggers.

- a. A *soft trigger* signifies an initial action is needed to keep from reaching the hard trigger.  
Reaching a soft trigger would prompt immediate discussion regarding range condition and adjustments to the grazing management to avoid exceeding the hard trigger point.
- b. A *hard trigger* signifies that a critical threshold has been met, and immediate management action is needed.

### **Climate Predictions**

Precipitation data and soil moisture data will be used in conjunction with drought condition and outlook predictions from the U.S. Department of Agriculture, National Oceanic and Atmospheric Administration Drought Monitor (<http://droughtmonitor.unl.edu/>). This information will be used to indicate the climatic conditions in the area of the allotments. When there are indicators of below normal or above normal conditions for the CQFM

Allotments, the partnership<sup>1</sup> will assess local conditions and outlooks and determine what management adjustments are needed, such as pasture deferment, rest, livestock rotation, change in numbers, etc. Although drought identification will be based on the Drought Monitor, the actual management actions would be based on Table 9 (provided below).

The Society for Range Management has defined drought as receiving 75% or less precipitation than the long-term average (SRM 1989). For the purposes of an adaptive management response the following general guidance will be used:

**Normal:** 75–125% of long-term average.

**Above normal:** Greater than 125% of long-term average.

**Abnormally dry to moderate drought): Less than 75%** of long-term average.

**Severe to exceptional drought): Less than 65%** of long-term average, soil moisture approaching 0%, prediction of drought to continue or become more severe.

#### Grazing Schedule

The grazing schedules shown in the CQFM EA on Tables 5 and 6 and attached at the end of this document show pasture deferment and rotation scheduling. The schedules are subject to change year to year, based on climatic conditions, physiological needs of the plants, site specific monitoring data, and range improvements.

The allotments will be managed as two units, one east and one west of U.S. Highway 93. The names of the pastures in the East and West Management Units are listed in Table 4 (and provided at the end of this document), and the locations are shown in Figure 3: Map 2 of the EA (and provided at the end of this document). Livestock management under the AAMP provides grazing deferment in spring and summer growing seasons; see Tables 5 and 6 (provided at the end of this document).

#### West Management Unit

The West Management Unit is made up of five pastures as follows: Twin Mills, Lost Cabin/Squaw Pocket, Black Tank/Valley, Sugarloaf, and Highway 93. Cattle are planned to be moved twice a year in accordance with Table 5 (provided at the end of this document).

#### Ephemeral Authorization

Ephemeral grazing will be authorized over the term of the permit providing that monitoring indicates progress is being made toward meeting Rangeland Health Standards and in accordance with applicable laws, regulations, and other guidance, i.e., Instruction

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<sup>1</sup> Partners for collaborative monitoring partnership would include, but are not limited to: BLM (Responsible Authority; 40 CFR 1506.5(b) and (c)), Livestock Permittee, AZ Game and Fish Department, Mohave Livestock Association, Arizona Cattle Growers Association, Arizona State Land Department, Natural Resource Conservation District, Natural Resource Conservation Service, University of Arizona, US Fish and Wildlife Service, Non-Governmental Organizations, and/or Interested public.

Memorandum AZ-94-018. e.g., 1) where ephemeral forage is abundant, or 2) to control red brome and reduce fuel loads. Twin Mills Pasture can be grazed in the winter outside the growing seasons and when an abundant ephemeral growth year occurs. Prior to cattle turnout, ephemeral production will have to exceed 280 pounds to the acre.

### East Management Unit

The East Management Unit is made up of six pastures combined into upper and lower areas due to differences in vegetation types related to higher or lower amounts of precipitation as a result of elevation differences. The three lower pastures are House, Big Wash, and Quail Springs. The three upper pastures are Cerbat, East Big Wash, and Marble Canyon. Cattle are planned to be moved twice a year as shown in Table 6 (provided at the end of this document).

### **Range Improvements**

In accordance with 43 CFR 4120.3-1 and 4120.3-2, the proposed range improvements (all fences, water facilities, pipeline systems, corral facilities, and cattleguards will be permitted under a Cooperative Range Improvement Agreement as a permanent range improvement for management of livestock. Following consultation with the appropriate partner, range improvement maintenance of the proposed projects will be assigned in the development of a Cooperative Range Improvement Agreement (Form 4120-6, OMB NO. 1004-0019).

The permittee will be responsible for installing, reconstructing, and relocating range improvements and may work in cooperation with partners such as BLM, NRCS, and AZGFD for assistance. Range improvement functionality could influence the stocking rate.

### **Fences**

1. Relocate the existing fence, and realign the road across Lost Cabin Wash along the west boundary of the Lost Cabin Pasture out of the wash to a nearby upland location. The gate will be replaced with a cattleguard (see Figure 9: Map 8 provided at the end of this document). The road in Lost Cabin Wash provides remote access to the Lake Mead National Recreation Area and, therefore, receives frequent vehicle use. Consequently, the gate at this location is often left open which allows cattle to wander onto the Lake Mead National Recreation Area.
2. Maintain the fence between Squaw Pocket and Lost Cabin pastures as the fence may be needed in the future (see Figure 4: Map 3 provided at the end of this document).
3. Realign the pasture boundary fence between Sugarloaf and Twin Mills pastures to incorporate Pilgrim Mine area into Sugarloaf Pasture (see Figure 4: Map 3 provided at the end of this document).
4. The boundary fence to the west of Lost Cabin Spring would be extended approximately 0.5 mile to the south and tied into a natural boundary. The location of this fence is T24N, R21W, Sections 22, 23, and 26 (see Figure 9: Map 8 provided at the end of this document).

5. Reconstruct the fence between House and Cerbat pastures. This fence would be realigned from private uncontrolled land to land owned by the permittee in T23N, R18W, Section 9.
6. Repair the fence between the Sugarloaf and Highway 93 pastures.
7. Repair the fence along the south and southeast portion of the Highway 93 Pasture.
8. Remove portions of the fence between Black Tank and Valley pastures to create one pasture.

#### **Standard Operating Procedures (fences)**

- a. When fences are realigned, extended, or reconstructed they will be built and then maintained using BLM fencing standards (1989 BLM Fencing Manual H-1741-1). Standards will differ depending on the big game species present (bighorn sheep or mule deer).
- b. Maintenance or reconstruction of fences in tortoise habitat will be conducted from existing roads or on foot or horseback where road access is not available.

#### **Cattleguards**

Thirteen cattleguards are approved for installation at sites shown in the CQFM EA on Figure 5: Map 4 for the West Management Unit and Figure 6: Map 5 for the East Management Unit. Both figures are provided at the end of this document.

#### **Standard Operating Procedures (cattleguards)**

All new cattleguards will be constructed and designed to prevent entrapment of small animals including desert tortoise.

#### **Water Facilities (wells, storage tanks, troughs, and pipelines)**

The AAMP can be implemented with or without the development of any one of eight well proposed in the 2015 CQWFM EA. W4 is located on State Trust Land where BLM has no decision authority. E1 would not be developed due to resource concerns (SHPO requirements). The remaining six new wells could be developed on public land (E2, E3, E4, W1, W2, and W3) as shown within Figure 5: Map 4 and Figure 6: Map 5 (provided at the end of this document). The wells would be equipped with a windmill; solar, or other appropriate energy source; 10,000 gallon storage tank; and a 500 gallon trough for livestock, wildlife, wild horses and burros (areas in the Herd Management Area or Herd Area). Until the new wells are developed, the permittee may haul water to the locations of the proposed new wells.

Reconstruct approximately 4.5 miles of the Wooten pipeline starting in T23N, R18W, Section 05. Water to this pipeline will be provided by Wooten Well which has been repaired and is operational. The pipeline will follow the existing pipeline alignment in a west-southwesterly direction crossing under US-93 in T23N, R18W, Section 18 and end at a trough in the Hwy 93 Pasture in T23N, R19W, Section 24 (Figure 4: Map 3 provided at the end of this document). The permittee will be responsible for obtaining

any required authorization for the pipeline from private landowners, the Arizona State Land Department, and the Arizona Department of Transportation.

### **Well Development Option**

To reduce the effects and economic costs associated with developing the six new well sites, other options were considered in consultation with the permittee and are described below.

East Management Unit: An existing well, located in T23N, R18W, Section 15, could be developed in the Cerbat Pasture rather than drilling and equipping the proposed wells at E2 and E4. This existing well is located approximately one mile from either E2 or E4. The existing Wooten Well has been repaired and will be used rather than drilling and equipping the proposed E1 well in the House Pasture. Wooten Well and E1 are located within 0.5 mile of each other. The existing permitted Calico Well will be repaired which will eliminate the need to drill and develop the proposed E3 well in the East Big Wash Pasture. Calico Well and E3 are located less than one mile from each other.

West Management Unit: The existing Lost Cabin and Squaw Pocket wells could be drilled deeper to improve volume and reliability. If successful, proposed new wells W1 and W3 will not be needed. The Lost Cabin pipeline extension, trough, and the drilling and equipping of W2 will not be authorized due to resource concerns.

### **Additional Wells**

The results of use pattern mapping and adaptive management could be used to indicate if additional wells are needed. New wells proposed outside of those analyzed or discussed in this EA will require new site specific analysis.

### **Standard Operating Procedures (troughs)**

Upon discussion and approval from the Authorized Officer, waters could be turned on and off (or access could be restricted) to facilitate movement and management of cattle and domestic horses. Facility fencing will be modified to allow wildlife access.

Watering troughs will meet BLM wildlife design standards and not stand higher than 20 inches from ground level and will be equipped with a wildlife escape ramp. All of the facilities will be colored to blend with the surrounding landscape.

### **Upland Exclosures**

Several exclosures (approximately 10 acres in size each) will be constructed. The exclosures will be used as control areas to compare grazed and ungrazed areas within pastures. The BLM will build and maintain the exclosure fences following BLM fencing standards (1989 BLM Fencing Manual H-1741-1). Exclosures will be

constructed and/or maintained at locations shown on Figure 5: Map 4 (provided at the end of this document) at:

1. near Key Area 5 in the Black Tank Pasture;
2. near Key Area 12 in the Squaw Pocket Pasture;
3. near Key Area 6 in the Sugarloaf Pasture;
4. near Key Area 17 in the Highway 93 Pasture (existing enclosure);
5. near Key Area 18 in the Twin Mills Pasture; and
6. near Key Area 20 in the Twin Mills Pasture.

### **Riparian Enclosures**

The existing enclosure around Big Wash Spring (T24N, R18W, Section 17) will be reconstructed (shown on Figure 4: Map 3 provided at the end of this document). The BLM will build and maintain the enclosure fence following BLM fencing standards (1989 BLM Fencing Manual H-1741-1).

### **3. Communication**

Responsible Party    Topic/Description

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Permittee

Planned Moves/Livestock:

Will contact the BLM Kingman Field Office prior to starting of scheduled livestock moves, to inform BLM of the number of authorized livestock to be located on public land. This will strengthen accountability and improve communication while promoting the orderly administration of livestock grazing on the public lands.

Unplanned Moves/Livestock:

Will contact the BLM to get authorization prior to making any livestock moves outside of the planned grazing schedule. The only exception will be in an emergency situation (i.e., imminent death of livestock, e.g., water structure is broken and livestock need to be moved immediately). In this case, the permittee still needs to contact BLM as soon as the situation has been resolved (within 48 hours). This will allow BLM to keep a record of any unplanned moves and promote good communication between all parties.

Actual-Use Records:

Will keep actual use records of all livestock activities (planned or unplanned) for all allotments/pastures during the grazing year. This written record will be made available to the BLM and all other stakeholders throughout the year.

Records should contain actual use by pasture, the start date, number of animals in pasture, any animal removed and period of use. Additional considerations such as death/loss; number of cattle that got out of a pasture, how long they were out; and water problems related to livestock distribution should be kept in records.

Range Improvement/Maintenance Issues:

Will contact BLM for exchange of gates for cattleguards when the following conditions occur:

1. If gates are left open more than five times per month, consider the addition of a cattleguard.
2. If gates are stolen at one location more than once, consider the addition of a cattleguard.
3. The permittee would notify BLM when this occurs or is occurring.

BLM/Permittee Stakeholder/Partner Meetings:

BLM will schedule bi-annual meetings between BLM, the grazing permittee, and other stakeholders prior to each scheduled livestock move to discuss previous year's monitoring, moves, etc. and the coming year's grazing schedule, number of livestock to be turned out, etc., based on current and predicted climatic conditions.

BLM Collaborative Monitoring:

Will schedule and invite all stakeholders to at least two monitoring meetings each year. Any additional monitoring or allotment visit(s), the BLM will schedule with permittee on a case by case basis. This would be most likely when triggers are approaching their limit(s) (i.e., due to environmental conditions).

Rain Gauges and Moisture Probes:

Will construct and monitor new weather stations, where needed, which could include rain gauges and moisture probes.

#### **4. Permit Renewal**

The Proposed Action also includes renewal of the existing livestock grazing permit (#0202019, #0202065, and #0202035) for the Cerbat (00020), Quail Springs (00062), and Fort MacEwen Unit A (00034) Allotments. Three 10-year term livestock grazing permits will be issued for a combined total of 455 active use AUs of livestock grazing on public land.

## 5. Other Term & Conditions

In accordance with 43 CFR 4130.3-2 (d) actual-use information for each use area will be submitted to the Authorized Officer within 15 days of completing grazing use as specified on the grazing permit and or grazing billings. Under the AAMP livestock management will be evaluated through monitoring data and needed changes would be made including a possible adjustment of cattle numbers and possible rest in any pasture during the grazing year. Therefore, the permittee will provide actual-use by pasture, including number of animals, kind and class of livestock, and period of use throughout the grazing year in writing following any livestock moves.

### D. PUBLIC COMMENTS AND RESPONSES

In 2010, a Draft Rangeland Health Evaluation was sent out for public review and comment to individuals, organizations, and agencies. Comments were received from the grazing permittee, MLA, AZGFD, and Western Watersheds Project. Comments were reviewed by an interdisciplinary team and incorporated into the final evaluation report where appropriate.

A preliminary EA titled *The Cerbat, Quail Springs, and Fort MacEwen Allotments Grazing Permit Renewal* numbered DOI-BLM-AZ-C010-2011-0017-EA was posted for public review on May 1, 2013 for a 24-day comment period ending on May 24, 2013. The KFO received nine public comment letters, including those from the permittee, members of the ranching community, the Mohave Livestock Association, AZGFD, and Western Watersheds Project. Comments from the ranching community supported the No Action Alternative from the 2013 CQFM EA, which did not reduce the permitted use and followed the 1980 Allotment Management Plan (AMP) which recommended the Best Pasture Method Grazing System, originally outlined in the Jornada Experimental Range Report #1 (Herbel and Nelson 1969). AZGFD supported the original Proposed Action from the 2013 CQFM EA, but added that a contingency plan was needed to account for vegetation to recover after destructive natural events such as drought and wildfire. Western Watersheds Project specifically commented on the alternatives in the 2013 CQFM EA, the stocking rate, and supported the No Grazing Alternative based on their analysis of data from the land health evaluation.

As a result of these comments and discussions between the ranching community and BLM managers, the Colorado River District Manager approached the State Director and the Resource Advisory Council (RAC) about forming a subcommittee to evaluate the 2013 CQFM EA and requested that further recommendations be provided.

Through the RAC a subcommittee was formed in November 2013. The RAC Subcommittee chose to develop a new Adaptive Management Alternative, developed adaptive management scenarios, thresholds, and subsequent management actions for the CQFM Allotments.

A subsequent EA was developed, titled *Cerbat, Quail Springs, and Fort MacEwen Allotments Proposed Grazing Permit Renewal* numbered DOI-BLM-AZ-C010-2014-0036-EA (2014 CQFM EA, July 2014) and was posted for public review on July 3, 2014 for a 15-day comment period

ending on July 18, 2014. The KFO received fifteen public comment letters, including those from the permittee, members of the ranching community, the Mohave Livestock Association (MLA), interested publics, AZGFD, Arizona Department of Water Quality (ADEQ), and Western Watersheds Project. The table shown below lists the comments received and BLM responses to those comments.

Letters:

1. ADEQ – email 7-15-14
2. Mohave Livestock Association - letter 7-16-14
3. Clay & Sandra Overson – letter 7-16-14
4. Cane Springs Ranch, Anita Waite – email 7-17-14
5. Tracy Sigouin – email 7-18-14
6. Western Watersheds Project – letter 7-18-14 received via e-mail
7. Ann Marie Hamilton – e-mail 7-19-14
8. Bill Hamilton – letter 7-20-14
9. Craig Hamilton – letter 7-20-14
10. Benjamin Jones – letter 7-20-14
11. Caleb Burnside – letter 7-20-14
12. Elno Roundy – letter 7-18-14
13. Tyler Lawrence – letter 7-20-14
14. John David Burt – letter 7-22-14
15. AZ Game & Fish – email 8-1-14

Letters from the above commenters are available for review at the Kingman Field Office.

Substantive comments from the above letters were addressed, with most of the comments being incorporated into the 2015 CQFM EA.

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Documents supporting this Decision are available from eplanning at the following link:

Just paste the link in your text browser:

[https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa\\_register.do](https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do)

Select the “Text Search” Option

From the new window that appears, select...

State: **Arizona**

Office: **Kingman**

Look for NEPA # **DOI-BLM-AZ-C010-2015-0020-EA**

**COMMENT ANALYSIS TABLE FOR CQFM ENVIRONMENTAL ASSESSMENT**

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
5 8 9	Administrative	Remove statement that 1980 AMP was not followed.	The EA has been updated to state that Rangeland Health Standards are not being met at some key areas while livestock operations have been managed under the 1980 AMP.
3 and 10	Administrative	add MLA and ACG	This request was implemented. See Section 2.1.6.2 Collaborative Monitoring
6	Adaptive Management	Adaptive Mgmt - What consequences will there be to either the BLM or the permittee if these plans are not followed? We suggest that the EA stipulate that a failure to follow the plan and see empirical improvement in resource conditions will trigger immediate reductions in stocking levels.  Triggers - Consequences of breaching triggers is overly vague. Merely having discussions is too slow and incremental, especially since 50% utilization limit on areas outside the Joint Use Area already exceed sustainable utilization according to most range scientists.	The Adaptive Management Plan identifies a number of triggers and a range of specific management actions that would be implemented as a result of nearing and/or reaching those triggers, including adjusting stocking levels.  Triggers and specific management actions have been modified, see Table 8, provided at the end of this document.
6	Adaptive Management	Monitoring component of adaptive management on page 109. EA cites meeting Standard 3 as example of a monitoring objective. Standards and guidelines are too subjective to be really useful for this. Monitoring must include objective, empirical criteria that are readily observable and understandable by all stakeholders.	Desired Plant Community (DPC) objectives are identified in Appendix B of the EA, and in the Rangeland Health Evaluation (USDI BLM 2010). BLM monitoring includes total live perennial cover which includes canopy and basal cover. Monitoring is intended to meeting specific DPC objectives; therefore, evaluation of Standard 3 is based on results of monitoring data.
10	Burros	7.3.6 and 7.3.6.3 Under Utilization and Trend Adaptive Management Response, the burden of meeting utilization objectives is placed on the permittee as if other factors did not exist.  The other factor is the burro population.	Section 1.1 of the 2015 CQFM EA acknowledges that several factors are responsible for Rangeland Health Standards (USDI BLM 1997) not being met at some key areas within the CQFM allotments, which include the combination of livestock grazing management, drought, wildfire, and burro management.  Burro numbers and gathers are beyond the scope of the CQFM EA. BLM is in the initial stages of preparing an EA for the Black Mountain Herd Management Area (BMHMA) which will address the current burro population, Appropriate Management Level, and any excess burros. A population estimate completed in 2014 with the U.S. Geological Survey indicates a population of 1,600 animals within the BMHMA. The CQFM EA has been updated to include the current population estimate (see <i>section 3.3.13 Wild Horses and Burros</i> ).
8 8 9 11 5 13 14	Burros	Address nuisance burros on allotment. Bill requested census results from May 2014 and AML of burros for the CQFM area. EA did not discuss how BLM intends to manage burros in West Management Units. They are an extra expense to the rancher and destructive to rangeland improvements.	Burro gathers are beyond the scope of the CQFM EA. BLM is in the initial stages of preparing an EA for the Black Mountain Herd Management Area (BMHMA) which will address the current population, Appropriate Management Level, and any excess burros. A population estimate completed in 2014 with the U.S. Geological Survey indicates a population of 1,600 animals within the BMHMA. The CQFM EA has been updated to include the current population estimate (see <i>section 3.3.13 Wild Horses and Burros</i> ).

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
14	Burros	Sec. 7.3.1, Goal 3 – BLM is not managing the burros under principles of multiple use; they are uncontrolled and destroying the range. BLM needs to do something about the burros.	Addressing burro gathers in detail is beyond the scope of the CQFM EA. BLM is in the initial stages of preparing an EA for the Black Mountain Herd Management Area which will address the current population, Appropriate Management Level, and collection of any excess burros in detail.
14	Communication	Sec. 7.3.1, Goal 2 – who are the partnerships and what are their responsibilities?	Partnerships and responsibilities have been clarified to the point possible in this EA as recommended by the RAC Subcommittee (see section 2.1.6.2 Collaborative Monitoring).
6	Communication	Annual/Semi-annual meetings. Communication update to invite everyone.	EA changed to reflect that a partnership would be formed through an open public process and that all meetings would be open to interested partners (see section 2.1.6.2 Collaborative Monitoring).
6	Economics	Socioeconomics: The socioeconomics section is somewhat dubious, not least because the MLA is cited as the source for the impacts to the economy. MLA is not a disinterested, credible source. BLM has not attempted to estimate the costs of administering the permit.	Socioeconomics section has been completely rewritten per recommendation of commenter (see sections 3.3.8 <i>Socioeconomics</i> and 4.1.8 <i>Socioeconomics</i> ).
8 9 11 13 14	Economics	Instead of just taking parts of the Howery (1999) article, cite the entire article.	Howery (1999) is cited in the EA. Changes have been made to the EA per recommendation of commenter.
6	General	WWP provided in earlier comments to BLM site specific observations and photographs.	BLM received the photo and observation in WWP's letter dated April 6, 2010. The location where the photo was taken is unknown because it is not geo-referenced. The photo appears to show a creosote plant community. This type of community does occur on the CQFM allotments. Many of the Ecological Site Description's (ESD) used in this evaluation area have creosote bush ( <i>Larrea divericata</i> ) listed as a shrub species found in these plant communities. Some of the ESD list creosote bush as the dominate shrub.
6	General	WWP conclusion statements.	The EA does take a hard look at the impacts of all the alternatives using the five mandates of NEPA, with special focus on resources that are within the CQFM Allotment area. With regards to comments made by WWP about a "preferred alternative," BLM has not identified one.
6	General	Alternative 1 marginally better than no action. Laissez faire management. EA states no summer rains in past 20 years which makes case for immediate and significant management change.	Management changes are proposed in Alternatives 1 and 2. In addition to applying adaptive management, Alternative 1 under the 2015 CQFM EA enlists the expertise of partnership members that includes receiving input from individuals in the business and academic realms. Adaptive management provides for triggers (soft and hard) based on monitoring to allow for changes to be made seasonally if needed. Soft triggers allow for voluntary actions; hard triggers require immediate action. Both Alternatives 1 and 2 recommend deferred and rotational grazing.

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
3	General	Oppose Alt 2. Not shown justification to cut the cattle numbers.	Lowering the stocking rate under Alternative 2 was based 1) on not meeting Rangeland Health Standards at some of the key areas in some of the Allotments, 2) drought conditions predicted for the future, and 3) peer reviewed literature from sources considered credible by some BLM specialists.
6	Other	Greenhouse gases. EA should provide an analysis of methane production on BLM lands from livestock grazing and compare to # cattle on these allotments.	The EA has been updated to reflect the amount of methane contribution of CQFM compared to total methane emissions by livestock on BLM lands (see <i>Table 15. Elements/Resources of the Human Environment</i> ). The proposed alternatives will not substantially contribute to greenhouse gas emissions; therefore, methane production from livestock grazing is not analyzed in the EA.
3 9 11 13 14	Other	With regard to permittee hauling water, last sentence under water facilities, the word “would” needs to be changed to “may.”	Changes have been made to the EA per recommendation of commenters.
6	Grazing Management	Utilization Limits: EA mentions utilization limits in desert ecosystems should be between 20-35%. EA then proposes utilization limits at 50%. Page 57 states proposed utilization triggers are higher than is recommended for maintenance or improvement of desert grasslands...	The analysis in the EA has been updated to reflect that utilization measurements are relative or seasonal use and not total use for most pastures most of the time. It is assumed that when livestock are removed from a pasture, plants in most years would regrow and total use would approach use limits recommended in the literature.  The EA has been updated in sections <i>4.2.2.10 Alternative 1, Adaptive Management Proposed Alternative, Vegetation</i> and in section <i>4.2.2.5 Alternative 2 Reduced Permitted Use Alternative, Long-Term Impacts (2-10 Years), Livestock Grazing Management</i> .
6	Grazing Management	Actual Use. When did ephemeral use occur on Fort MacEwen allotment? This would be helpful to understand productivity of the allotment and how proposed pasture rotation aligns with historic additional AUMs.  What parameters under which ephemeral use is authorized? How does BLM determine what level of production is met?  Ephemeral use is a cumulative effect that should be considered in the EA.	The Rangeland Health Evaluation (USDI BLM 2010, pg. 25; see “Eph” notations) shows ephemeral use by year and by allotment.  Ephemeral use is authorized under the Federal Grazing Regulations and under Instruction Memorandum No. AZ-94-018, Ephemeral Grazing Authorizations.  Livestock grazing which includes ephemeral grazing is analyzed throughout the document where appropriate.
9 14	Grazing Management	Sec 7.3.3.1 Object to rotating horses in Proposed Action– need horses next to corrals for cowboys to catch their mounts for the day.	The proposed action provides seasonal rest for all pastures. The Quail Springs and Big Wash pastures would be available to horses depending on the rotation schedule for the pastures. Having horses present year-round would provide no rest for these pastures.

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
6	Grazing Management	Stocking Rate (see letter)- In essence, the proposal would actually increase the stocking rate and reduce overall acreage. A thorough forage capacity analysis should be conducted on each pasture before permits are renewed.	A forage capacity analysis was conducted for each pasture when the stocking rate was calculated. The EA has been updated to clarify the stocking rates used in section 4.2.2.10 <i>Alternative 1 Proposed Action Adaptive Management Alternative Long-Term Impacts</i> .
8 11 13	Grazing Management	Disagrees with initial stocking rate for Proposed Action, indicating loss of \$65,000 head annually. Believes it is 28 head lower than agreed to in RAC meeting of April 24.	<p>The RAC Subcommittee agreed on initial stocking rate of 476 on April 24, 2014.</p> <p>The BLM met with RAC on June 24, 2014 and the RAC approved the starting number of 458 AUs. This was subsequently reduced to 455 AUs in order for the pasture rotation to work because the pastures are of unequal size.</p> <p>The original stocking rate was set at 476 AUs based on a 50% use level (PUL–Proper Use Level) for all of the allotments. The stocking rate was incorrectly figured as it should have been based on 50% for all pastures <i>outside</i> of the Joint Use Area and at 40% for all pastures <i>inside</i> the Joint Use Area. Therefore the stocking rate was recalculated and was adjusted to 458 AUs to reflect the use limits set by the RAC Subcommittee. Following the June 24, 2014 RAC Subcommittee meeting, the stocking rate was reduced to 455 in order for the pasture rotation to work because the east side came up short by three AUs when the numbers were plugged into the grazing rotation.</p>
6	Grazing Management	Grazing and wildfire control: Livestock control of red brome through grazing is a controversial method of fire control. Why even propose this management tool for fire reduction in the EA?	This management tool can be effective using targeted grazing. Is in EA as available option under Alternatives 1 (4.2.2.2 Fire/Fuels Management)
6	Grazing Management	<p>Stocking rate analysis fails to consider apparent decrease in live vegetation cover that has occurred over most of the key areas of allotments within last 20 years (RHA Appendix D.)</p> <p>By lumping vegetation into classes for the vegetation objectives, the BLM is obscuring changes such as decreases in frequency and diversity of grasses at some Key Areas.</p> <p>The vegetation objectives don't parse out changes in the plant communities, diversity, and ecological condition.</p>	<p>Cover objectives were met at 16 of the 17 study sites. The only study site that did not meet cover objectives was Study Site 20 in the Twin Mills pasture.</p> <p>The vegetation objectives were set for composition, not for frequency or diversity. However, these other attributes were considered when determining if land health standards were met. Although species were grouped into structural/functional groups, changes to frequency of individual species within a group were also evaluated.</p> <p>Vegetation objectives are one piece of information that the BLM uses to determine the ecological health of a plant community. Vegetation objectives are set by comparing the existing plant community at a key area to the ecological site description. Additional indicators (e.g., hydrological function, soils, litter) are used to determine if the site is meeting Arizona Standards for Rangeland Health.</p>

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
6	Grazing Management	Permitted use needs to be adjusted downward to reflect the actual capacity of the allotment. Actual use for all three allotments average 44% (2,248 AUMs) of total permitted use over a 13 year period.	Alternative 1 begins with a reduction from full preference. Under Adaptive Management numbers can be reduced if monitoring supports reductions. Alternative 2 does reflect a downward adjustment of permitted use.
3	Grazing Management	East management unit: support change at request of permittee to rotate pastures from side to side instead of up and down due to lack of water in the mountain, drier conditions.	This request was not received until after the EA and the Proposed Alternative 1, Adaptive Management, had been received by the RAC committee and . This change, as requested could be implemented in the second year of an adaptive management plan, if Alternative 1 is selected and the permittee brings the request up before the proposed partnership.
3 4	Grazing Management	Under Severe to Exceptional Drought/Grazing Management, it states to rest 1 pasture on the east side and 1 pasture on the west side through severe to exceptional drought. Contrary to suggestion of RAC subcommittee to spread cattle into all pastures to reduce impacts on vegetation during drought.	EA Alternative 1 has updated. Now states "Open all gates and spread cattle into all pastures with the exception of pastures approaching, at or exceeding their use limits (40% or 50%). Adjust numbers to be in balance with available forage." Table 9.
10 8 9 13 14	Grazing Management	The Twin Mills should be grazed year round as per the RAC subcommittee recommendation.  Consider year round grazing in Twin Mills pasture. Year round grazing would more effectively control red brome than ephemeral grazing.  Water hauling in Twin Mills Pasture is infeasible due to primitive roads.	The RAC Subcommittee recommended using Twin Mills fall/winter and on and off for ephemeral grazing.  The EA evaluated livestock grazing and its potential to reduce fuel loading in sections 4.2.2.2 <i>Fire/Fuels Management</i>  The EA was updated to reflect that hauling water in the Twin Mills Pasture is difficult due to rough roads.
8 9 11 13 14	Grazing Management	Under the current conditions Sugarloaf and Hwy 93 pastures should be combined, leaving fence in place.	The RAC subcommittee agreed to keep Sugarloaf and Highway pastures separate on June 24, 2014. The fence will be left in place.
	Grazing Management	East management unit: support change at request of permittee to rotate pastures from side to side instead of up and down due to lack of water in the mountain, drier conditions.	The east/west rotation was approved by the RAC subcommittee. Through the Adaptive Management process rotation could be changed to North/South at a later date. BLM would need to evaluate the rotation and determine if this rotation would meet vegetation and seasonal rest objectives, etc.
6	Grazing Management	Suggest closing Cerbat pasture in it's entirety, given its current limited capacity for livestock grazing because of lack of water.	A well has been developed on private land in Cerbat Pasture and there is a reliable water source.
9 10 14	Grazing Management	East management unit: rotate pastures from north/south instead of east/west.	The east/west rotation was approved by the RAC subcommittee. Although through the Adaptive Management process, rotation could be changed to north/south rotation.
9 14	Grazing Management	We will NOT be forced to leave the water on for the use of anything other than our cattle or horses. However we MAY leave it on at our sole discretion for the sake of wildlife.	Water developments occurring on public land could be left on year-round (or access restricted to) as required under the Terms and Conditions of the federal grazing permit. Water developments occurring on private land are controlled at discretion of land owner.

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
6	Infrastructure	New waters: BLM is offsetting the rest in some pastures by increasing the use in others through new waters. This would be a significant effect and the impacts to the site-specific features on these lands should have been analyzed and discussed.	An analysis of the impacts to ground and surface waters has been added to <i>section 4.2.2.11, Water Quality and Quantity (Drinking and Ground)</i> in the EA. Impacts from new water developments have been analyzed throughout the EA.
6	Infrastructure	New waters: There is no specific monitoring established or identified to track the effects from new waters.	Existing monitoring at established key areas should detect changes in vegetation caused by the new waters. Additionally, use pattern mapping could be done to evaluate cattle distribution in proximity to new water locations to determine if new key areas are needed.
9 10 11 14	Infrastructure	BLM filled in a mine shaft at House pasture near Chloride. Well in House pasture filled in when BLM bulldozed the mine shaft. Request BLM drill a new well.	BLM initiated investigation of well failure. The well needed a new pump. Permittee replaced pump and well is functional.
5	Infrastructure	Water facilities. Until new wells are developed rancher would haul water... How soon before these wells are drilled? At whose expense to be drilled? It could become expensive for permittee.	The Proposed Adaptive Management Plan can be implemented with or without the development of any one of the eight wells. To reduce the effects and economic costs associated with developing eight new well sites, other options are also offered in the EA. The permittee proposed the eight wells and is responsible for installation and maintenance of any he elects to develop. Water hauling schedule would be developed by the permittee. New water and/or modified existing facilities could improve water distribution, volume, and reliability through the allotments.
3	Infrastructure	Clearances needed for 2 new wells	Biological and cultural clearances have been conducted for the well proposals made in the Proposed Adaptive Management Plan. New wells proposed outside of those analyzed or discussed in this EA would require site specific analysis.
8 5 9 10 11 14	Infrastructure	Who is going to pay for all the range improvements? This appears to be an extra expense for a ranch whose cattle numbers this assessment is proposing to reduce.	The permittee would be responsible for installing, reconstructing, relocating, and maintaining all range improvements as they are referenced in the EA and may work in cooperation with partners such as BLM, NRCS, and AZGFD for assistance.
10	Infrastructure	Who pays for water facilities?	The permittee would be responsible for installing, reconstructing, relocating, and maintaining all range improvements as they are referenced in the EA and may work in cooperation with partners such as BLM, NRCS, and AZGFD for assistance.
9 10 13 14	Infrastructure	Do not remove Squaw Pocket/Lost Cabin fence.	RAC Subcommittee on March 17, 2014 agreed that the fence between Squaw Pocket and Lost Cabin pastures would stay in place and be maintained as the fence may be needed in the future. Alternative 1 Proposed Action Alternative has been updated to reflect this change.

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
9 10	Infrastructure	Item 5: do not need to repair fence between House and Cerbat if rotation is changed to north/south. Fence has been cut in several places and is not repairable.	RAC Subcommittee on June 24, 2014 agreed that the fence between House and Cerbat pastures would remain in place, be repaired, and portions realigned. Alternative 1 Proposed Action Alternative has been updated to reflect this change.
5	Infrastructure	Rain gauges and moisture probes. This section states the permittee would read the existing and new gauges. What type of records would have to be kept and how often? Depending on location might be difficult after a rain, time consuming and expensive.	Permittee agreed to read rain gauges in a meeting of the RAC subcommittee. See <i>Table 7. Data Monitoring Protocol</i> . BLM would collect soil moisture data.
6	Legal	Reference to Duck Creek Office of Hearings and Appeals Decision being relevant to the analysis of the proposed action in this EA. Insufficient monitoring methodologies, needed to cover site specific wildlife habitat, needed to discuss concentrated livestock use in areas around new water troughs, needed to re-evaluate carrying capacity in light of degraded conditions, and that without accurate actual use data impacts of grazing was mere speculation.	BLM has established one or more key areas in each pasture on the CQFM allotments. Monitoring follows established and accepted methods and protocols found in BLM technical references. A variety of monitoring methods were used to evaluate whether key areas were meeting the Arizona Standards for Rangeland Health. When areas meet standards, the assumption is that the habitat needs of wildlife in these areas are being met or have the processes in place to be met (see Section <i>4.1.2.13 Wildlife including Special Status Species and Migratory Birds</i> ). Discussion of the impacts as a result of more concentrated livestock use in areas surrounding proposed new water developments is found in Sections <i>4.1.2.10 Vegetation</i> and <i>4.1.2.13 Wildlife including Special Status Species and Migratory Birds</i> . Stocking rate adjustments would be made through an adaptive approach based on monitoring data in relationship to resource management objectives. The permittee is responsible for submitting actual-use data and certifying its' accuracy.
6	Vegetation	Desired Plant Community should be for all groups (forbs, grasses, shrubs, trees) not just forage species because there are other vegetative components of rangeland health that need to be considered.  Biological soil crust (BSC) only mentioned cursory on page 30 which says no mapping of BSC even though they were observed "in locations away from waters where soils are meeting Standard 1". BLM is required to manage for BSC.	The DPC objectives are set on key species that show a cause and effect relationship with livestock grazing. Key species use serves as an indicator to the degree of use of other within the plant community. Key species are those that serve as indicators of change within the community since it is not feasible to establish objectives for every species within a community.  The EA has been updated to reflect that biological soil crusts are rarely encountered within the allotments due to the coarse nature of soils (see section <i>3.1.10 Soils and 3.1.11 Biotic Soil Crusts</i> ), and that biological soil crust cover information is collected during monitoring of Key Areas if it is found.
6	Vegetation	EA states that Quail Springs Key Area (KA) 8 is meeting Standard 3 (page 36). It is in desert tortoise habitat (Figure 16) (page 42). However, RHE page 28 states KA 8 is not meeting composition objective for shrubs. Grass composition is dominated by big galleta. Desert needlegrass should be present on this ecological site in relatively equal amounts. Disparate presence not discussed.	Desert needle grass is present at the site and is within the range of the Ecological Site Description (see <i>Appendix D. Rangeland Health Evaluation, (USDI BLM 2010)</i> ).

LETTER #	THEME	COMMENT	PROPOSED RESPONSE
			Comment related to Quail Springs Key Area 8 is found on Table 8, page 31 of the EA dated July 3, 2014, and Figure 16 is actually Figure 9 in the EA. The composition objective for shrubs at Key area 8 is 17 to 43%. The existing composition is 16%. Composition is only one factor in determining if standards were met for a key area; see RHE page 46.
6	Vegetation	Rare Species: WWP says other penstemons are palatable. BLM needs to support its contention that grazing isn't affecting the imperiled two-colored beard tongue penstemon in the Black Mountain ACEC.	EA discloses that two-colored beard tongue may be grazed and trampled by livestock under Alternatives 1, 2, and 3.
6	Vegetation	Support proposed action to rest Twin Mills pasture, but would like to see BLM specify whether objective is perennial vegetation basal cover or canopy cover that must be reached before reauthorizing livestock. This should be met for a period of time and based on more than a single Key Area (KA 20).	There are 2 study sites in Twin Mills pasture, Key Area (KA) 18 and 20. Cover objective is total live perennial vegetation cover (includes basal and canopy cover). KA 18 is meeting cover objectives. KA 20 is the only site not meeting cover objectives. The EA has been updated to specify cover objective (see Section 6-Appendix B <i>Desired Plant Community Objectives</i> ).
6	Wildlife	Wildlife: EA uses erroneous assumptions in analyzing wildlife. Properly Functioning Condition is not a fine enough tool to determine if riparian areas are meeting the habitat needs of riparian wildlife. PFC is a low bar.	Properly Functioning Condition is the BLM standard for assessing riparian habitat. The EA has been updated to reflect Properly Functioning Condition assumptions (see Section 4.1.2.13 <i>Wildlife including Special Status Species and Migratory Birds</i> ).
6	Wildlife	Tortoise. Explain the difference between the USGS map and the one in the EA for desert tortoise habitat. BLM should use the USGS map because it represents the best available science.	The BLM conducted field surveys for Sonoran desert tortoise (tortoise) to determine presence or absence within the Kingman Field Office. This survey data along with the tortoise habitat category descriptions and criteria found in the Desert Tortoise Management on the Public Land, a Range-wide Plan (BLM 1988), were used to create the boundaries for the various tortoise habitat categories found in the Kingman RMP (BLM 1995). Some areas within CQFM were not surveyed for tortoise by the BLM. Within the unsurveyed areas, the predictive tortoise habitat model produced by the USGS in Report 2009-1102 (Nussear 2009) shows that there is potential for the occurrence of tortoise habitat within all three allotments. It should be noted however that there were no actual observations on the USGS Report 2009-1102 in the general vicinity of the CQFM Allotments (see Figure 17 in the 2015 CQFM EA).  However, per the commenter's request, the EA has been updated to reflect the information from the USGS tortoise habitat model (Sections 3.1.15 and 4.1.2.13 <i>Wildlife including Special Status Species and Migratory Birds</i> ).

## E. Rationale

After considering public comments received through scoping and BLM's responses, it is my Proposed Decision that no additional analysis or content revisions beyond those considered in the 2015 CQFM EA (*DOI-BLM-AZ-C010-2015-0029-EA*) or the associated FONSI are needed. The BLM specialists reviewed the comments and provided responses and revisions where appropriate to the substantive comments in Public Comments Received and Responses of this document.

This Proposed Decision best meets the Purpose and Need for the Action because it:

- 1) provides both short-term and long-term planning in key areas not currently meeting Standards of Rangeland Health to progress toward meeting Standards by offering adaptive management options such as growing season rest on upland forage species and springs via deferment and rotational grazing;
- 2) allows for rangeland improvement projects to provide for improved cattle distribution and enclosures;
- 3) provides protection of springs and associated riparian vegetation through utilization standards;
- 4) provides flexibility for annual variation in environmental conditions, including drought;
- 5) adjusted the mandatory Terms and Conditions of the permits in order to meet the standards for rangeland health; and
- 6) renew three new 10-year term grazing permits for authorizations #0202019, #0202065, and #0202035 under 43 Code of Federal Regulations (CFR) 4130.

In addition, the Proposed Decision was based on consultation with the affected grazing permittee, the RAC and their subcommittee, local Mohave County Government, public commenters, and conformance with applicable laws and regulations.

43 CFR 4130.3 states that, "Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve the management and resource condition objectives for the public lands and other lands administered by the Bureau of Land Management, and to ensure conformance with the provisions of subpart 4180 of this part."

According to upland data collected in the Cerbat (00020), Fort MacEwen Unit A (00034) and Quail Springs (00062) Allotments Rangeland Health Evaluation (USDI BLM 2010), Arizona Standards for Rangeland Health and resource objective cited in the Kingman Resource Management Plan (1995) are not all being met and some sites are not making significant progress towards meeting applicable standards under current livestock management practices. Data collected at upland key areas indicates that grazing use by cattle in these areas is a significant factor in slowing the progress towards meeting applicable standards.

Rationale is first provided relating to changes made between the 1980 Allotment Management Plan (AMP) for Cerbat, Fort MacEwen Unit A, and Quail Springs Allotments and the Proposed Decision for the 2015 Adaptive Allotment Management Plan (AAMP) for the same allotments, which includes the following changes/questions:

- 1) a change to adaptive management
- 2) adjustments in livestock numbers
- 3) a change in livestock kind

- 4) allowance for range improvements
- 5) provisions for enhanced communication between BLM, the Permittee, and
- 6) involvement of partnerships with interested stakeholders in the adaptive management plan.

Rationale is then provided as it pertains to the four major goals (questions 7, 8, 9, and 10) and two objectives (questions 11 and 12) of the Adaptive Management Plan, as it was developed by the RAC Subcommittee and it was then presented to BLM by the RAC and accepted by the BLM for consideration as an alternative into the 2015 CQFM EA.

### **Will the Proposed Decision to implement Alternative 1, the Adaptive Management Plan...**

1. ***Ensure that BLM and the permittee implement a flexible adaptive management plan?***  
Yes, in order to continue grazing on the Cerbat (00020), Fort MacEwen Unit A (00034) and Quail Springs (00062) Allotments, the permittee will be offered a grazing permit with Terms and Conditions that require livestock grazing to be managed under an Adaptive Allotment Management Plan (AAMP). The AAMP would include a grazing schedule, monitoring, and meetings between the permittee and BLM to implement changes needed in management. Monitoring assesses resource conditions, determines if objectives are being met, and helps refine livestock management strategies. The collaborative partnership would ensure that BLM and permittee are applying the adaptive management process. The partners could include but are not limited to AZGFD, MLA, RAC Subcommittee members and other interested stakeholders. Bi-annual meetings will allow BLM, the Permittee, and other partners to evaluate monitoring results along with predicted climatic conditions for the lands to make suitable determinations for what the lands can sustain in upcoming seasons.
2. ***Ensure adjustments in livestock numbers are in balance with vegetation resources?***  
Yes, the first major change in the permit under the new the AAMP is to reduce livestock active- use from 578 AUs to a combined total of 455 AUs. This reduction is expected to help rangeland resources move more rapidly toward meeting Rangeland Health Standards and resource objectives. Over time the improvement in rangeland health is anticipated to improve forage quality and quantity for all grazing ungulates. The changes in active-use are expected to provide additional forage on a multiple-use sustained yield basis and improve habitat conditions across the allotments. Increased forage production should improve viability of the permittees overall grazing operation.
3. ***Ensure a change in livestock (i.e., horses) will be added to the grazing permit?***  
Yes, the renewal of the Quail Springs Grazing Permit (00062) includes exchanging 15 horses for the equivalent number of cattle AU's allowed on the permit. This change will benefit the permittee in cost, time, and stress of transportation and feeding required for saddle horses used in ranching operations. Funds saved can be used for other livestock costs associated with ranching operations. Increases in revenue could be reinvested in public lands (i.e., other range improvements).

**4. *Ensure for the development of proposed range improvements?***

Yes, the AAMP states that although the permittee is responsible for installing, reconstructing, and relocating range improvements, outside funding opportunities are possible and are recommended through partnerships with agencies that included: AZGFD, NRCS, and BLM. Maintaining and repairing fences along with replacing gates with cattleguards will help to ensure that livestock are confined to pastures scheduled to be grazed and that rotational grazing is followed. This will minimize conflicts associated with the public cutting fences and leaving gates open between pastures. Upgrades of water facilities that are past their useful life will increase the reliability and availability of water across the allotments. This will also reduce water emergency situations such as water hauling, costly repairs, emergency moving of livestock etc. New water developments will enhance livestock distribution across the allotments.

Upgrades and new improvements are also expected to enhance the value of the ranch for the permittee.

**5. *Enhance communication between BLM and the Permittee and/or other stakeholders?***

Yes, the AAMP calls for the permittee to keep detailed actual-use records, contact the BLM for moves within and outside of the scheduled grazing periods, and it calls for bi-annual meetings, at a minimum, between the BLM, permittee, and other stakeholders. The AAMP calls for monitoring to be conducted as a collaborative effort between the BLM, permittee, and stakeholders to document that desired conditions are being achieved.

**6. *Improve trust between the BLM and the Permittee by ensuring that the number of livestock grazing on public land is accurate?***

Yes, as part of the Terms and Conditions of the permit, the permittee is required to contact the BLM prior to rounding up and moving livestock to allow BLM the opportunity to count the number of livestock located on public land. This will also promote orderly administration of livestock grazing on the public lands.

**7. *Meet environmental objectives on public lands while allowing for an economically viable ranching operation to be maintained?***

Yes, renewing the three 10-year term permits, under the AAMP as a term and condition of the permit, will provide for attainment of environmental objectives by changing the permit to reduce livestock active use from 578 AUs to a combined total of 455 AUs is expected to help rangeland resources move more rapidly toward meeting Arizona Standards for Rangeland Health and resource objectives while allowing the permittee to continue his grazing operation on public land. Over time the improvement in rangeland health is anticipated to improve forage quality and quantity and improve livestock performance in the form of calf crop, winging weights and over all herd health. The changes in active-use will provide more forage on a multiple-use sustained yield basis and improve habitat conditions in some pastures by reducing competition between livestock, burros, and wildlife species. As more reliable water facilities are developed livestock distribution is expected to be enhanced and the stress and associated costs with older, less reliable water facilities to be reduced (i.e., mileage, maintenance and repair/purchase of parts, water hauling, etc.).

An economically viable ranch for the livestock operator and employees will be possible by allowing the permittee to continue his grazing operation on public land, improving forage quality and quantity and thereby improving livestock performance in the form of calf crop, weaning weights and over all herd health.

8. ***Ensure these grazing allotments are allowed to be managed through partnerships to leverage available funding for new range improvements and to accomplish NEPA analysis and clearances required for range improvement implementation?***

Yes, the development of the 2015 CQFM EA was a collaborative effort that included communication and cooperation; especially the incorporation of Alternative 1 that was submitted by the RAC committee via a RAC Subcommittee. The AAMP states that although the permittee is responsible for installing, reconstructing, and relocating range improvements, outside funding opportunities are possible and are recommended to be requested through partnerships with agencies that included: AZGFD, NRCS, and BLM. Authorized range improvement permits with BLM would be authorized under a Cooperative Range Improvement Agreement which allows for contributions from multiple partners.

Resource evaluations and NEPA analyses were conducted for eight new water developments. Analysis in the 2015 CQFM EA also focused on options for expanding water developments other than adding new developments, such as drilling deeper wells at existing well sites. Site specific analysis would be required for any additional new water developments not already analyzed in the 2015 CQFM EA.

9. ***Fulfill BLM responsibilities under the Federal Land Policy and Management Act (1976) for managing public land under the principles of multiple-use and sustained yield that will be upheld throughout the grazing permit renewal process?***

Yes, renewing these 10-year term permits, under the new AAMP as a term and condition of the permits, will provide for continued livestock grazing, as one of the uses of public land under the principles of multiple-use. Adaptive management is designed to improve rangeland health conditions which could maintain or increase forage production and provide improved water sources for livestock and wildlife. In addition, providing sustainable grazing management that improves habitat conditions for wildlife could in turn increase economic opportunities for recreational activities such as hunting. The changes in active-use is expected to provide more forage on a multiple-use sustained yield basis with subsequent improvement for habitat conditions.

10. ***Ensure that Adaptive Management is followed when making changes to the grazing plan, stocking rate, and range improvements?***

Yes, adaptive management strategies allows for changes to the grazing plan, stocking rate, and range improvements in response to monitoring. Adjustments include: timing, intensity, frequency and duration of grazing, the grazing management system, and livestock numbers according to resource conditions and allows for the flexibility necessary to meet utilization guidelines and long-term desired conditions.

The exact number of livestock authorized to graze on an annual basis would depend on such things as resource condition of the allotment, available water, annual forage production, condition of structural facilities, and range readiness.

**11. *Ensure the allotment would be managed to achieve the Arizona Standards for Rangeland Health?***

Yes, under the AAMP monitoring provides the data with which to assess resource conditions, determine if objectives are being met, and periodically refine and update desired conditions and management strategies. If monitoring indicates that desired conditions are not being achieved and current livestock grazing practices are causing non-attainment of resource objectives, livestock grazing management on the allotment would be modified in cooperation with the permittee. The AAMP provides grazing deferment in spring and summer growing seasons. Periodic rest periods during the growing season will promote recruitment of grass, forbs, and palatable shrub species, and allow the plant species vigor to improve.

**12. *Ensure utilization criteria objectives are met?***

Yes, utilization triggers are set and periodic monitoring would be completed to assure that the utilization objectives are met. The utilization hard triggers within the Black Mountain Ecosystem Joint Use Area are set at 40% and 50% outside of the Joint Use Area.

I did not select the **Alternative #2, Reduced Permitted Use** because the continuation of current management did not:

- (1) offer the same socioeconomic opportunities to the county and state, or to potential employees for the permit as Alternative 1;
- (2) propose as many opportunities for water improvements which could result in improved grazing distribution throughout the allotments as Alternative 1;
- (3) Alternative 1 offered more opportunities for cooperation, collaboration, and communication between the permittee, and BLM, as well as building relationships with other agencies and partners to improve understandings and grazing in the community. It also provided a grazing schedule with planning and field monitoring identifiers (i.e., triggers) to maximize results and learning as suggested by BLM in Adaptive Management.

I did not select **the No Action: Current Conditions Alternative #3** because it did not:

- (1) achieve the Standards for Rangeland Health according to the Land Health Evaluation of 2010;
- (2) it did not meet the resource objectives stated in the *Kingman Resource Area Proposed Resource Management Plan (RMP)/Final Environmental Impact Statement* (USDI BLM 1995).

I did not select the **No Grazing Alternative #4** because it does not:

- (1) meet the Purpose and Need as stated in the 2015 CQFM EA;
- (2) conform to the Taylor Grazing Act (1934), the Federal Land Policy and Management Act (1976), and the *Kingman Resource Area Proposed Resource Management Plan*

(RMP)/*Final Environmental Impact Statement* (USDI BLM 1995), which require that the BLM respond to applications to fully process permits to graze livestock on public land.

## **F. Authorities**

### 43 CFR Code of Federal Regulations (CFR) Supporting the Above Decision

The authority for this decision is contained in Title 43 of the Code of Federal Regulations (CFR), Part 4100 in effect on July 11, 2006, which states in pertinent subparts and sections:

#### **§ 4100.0-8 Land Use Plans.**

The authorized officer shall manage livestock grazing on public lands under the principles of multiple use/sustained yield and in accordance with applicable land use plans. Land use plans shall establish allowable resource uses (either singly or in combination), related levels of production, or use to be maintained, areas of use, and resource condition goals and objectives to be obtained. The plans also set forth program constraints and general management practices needed to achieve management objectives. Livestock grazing activities and management actions approved by the authorized officer shall be in conformance with the land use plan as defined at 43 CFR 1601.0-5(b).

#### **§ 4110.3 Changes in permitted use.**

The authorized officer shall periodically review the permitted use specified in a grazing permit or grazing lease and shall make changes in the permitted use as needed to manage, maintain, or improve rangeland productivity, to assist in restoring ecosystems to properly functioning condition, to conform with land use plans or activity plans, or to comply with the provisions of subpart 4180 of this part.

#### **§ 4110.3-2 Decreasing permitted use....**

(b) When monitoring or field observations show grazing use or patterns of use are not consistent with the provisions of subpart 4180, or grazing use is otherwise causing an unacceptable level or pattern of utilization or, when exceeds, the livestock carrying capacity as determined through monitoring, ecological inventory or other acceptable methods, the authorized officer shall reduce permitted grazing use or otherwise modify management practices.

#### **§ 4110.3-3 Implementing reductions in permitted use.** (a) After consultation, cooperation, and coordination with the affected permittee or lessee, the State having lands or managing resources within the area, and the interested public, reduction of permitted use shall be implemented through a documented agreement or by decision of the authorized officer.

#### **§ 4120.2 Allotment management plans and resource activity plans.**

Allotment management plans or other activity plans intended to serve as the functional equivalent of allotment management plans may be developed by permittees or lessees, other Federal or State resource management agencies, interested citizens, and the Bureau of Land Management. When such plans

affecting the administration of grazing allotments are developed, the following provisions apply:

(a) An allotment management plan or other activity plans intended to serve as the functional equivalent of allotment management plans shall be prepared in careful and considered consultation, cooperation, and coordination with affected permittees or lessees, landowners involved, the resource advisory council, any State having lands or responsible for managing resources within the area to be covered by such a plan, and the interested public. The plan shall become effective upon approval by the authorized officer. The plans shall—

- (1) Include terms and conditions under §§ 4130.3, 4130.3–1, 4130.3–2 4130.3–3, and subpart 4180 of this part;
- (2) Prescribe the livestock grazing practices necessary to meet specific resource objectives;
- (3) Specify the limits of flexibility, to be determined and granted on the basis of the operator’s demonstrated stewardship, within which the permittee(s) or lessee(s) may adjust operations without prior approval of the authorized officer; and
- (4) Provide for monitoring to evaluate the effectiveness of management actions in achieving the specific resource objectives of the plan.

**§ 4120.3–1 Conditions for range improvements.**

- (a) Range improvements shall be installed, used, maintained, and/or modified on the public lands, or removed from these lands, in a manner consistent with multiple-use management.
- (b) Prior to installing, using, maintaining, and/or modifying range improvements on the public lands, permittees or lessees shall have entered into a cooperative range improvement agreement with the Bureau of Land Management or must have an approved range improvement permit.
- (c) The authorized officer may require a permittee or lessee to maintain and/or modify range improvements on the public lands under § 4130.3–2 of this title.

**§ 4120.3–2 Cooperative range improvement agreements.**

- (a) The Bureau of Land Management may enter into a cooperative range improvement agreement with a person, organization, or other government entity for the installation, use, maintenance, and/or modification of permanent range improvements or rangeland developments to achieve management or resource condition objectives. The cooperative range improvement agreement shall specify how the costs or labor, or both, shall be divided between the United States and cooperator(s).
- (b) Subject to valid existing rights, title to permanent range improvements such as fences, wells, and pipelines where authorization is granted after August 21, 1995 shall be in the name of the United States. The authorization for all new permanent water developments such as spring developments, wells, reservoirs, stock tanks, and pipelines shall be through cooperative range improvement agreements. A permittee’s or lessee’s interest in contributed funds, labor, and materials will be

documented by the Bureau of Land Management to ensure proper credit for the purposes of §§ 4120.3–5 and 4120.3–6(c).

**§ 4120.3–4 Standards, design and stipulations.**

Range improvement permits and cooperative range improvement agreements shall specify the standards, design, construction and maintenance criteria for the range improvements and other additional conditions and stipulations or modifications deemed necessary by the authorized officer.

**§ 4130.2 Grazing Permits or leases.**

- (b) The authorized officer shall consult, cooperate and coordinate with affected permittees or lessees, the State having lands or responsible for managing resources within the area, and the interested public prior to the issuance or renewal of grazing permits and leases.
- (c) Grazing permits or leases convey no right, title, or interest held by the United States in any lands or resources.
- (g) Temporary nonuse and conservation use may be approved by the authorized officer if such use is determined to be in conformance with the applicable land use plans, allotment management plan or other activity plans and the provisions of subpart 4180 of this part.
  - (1) Conservation use may be approved for periods of up to 10 years when, in the determination of the authorized officer, the proposed use will promote rangeland resource protection or enhancement of resource values or uses, including more rapid progress toward resource condition objectives;

**§ 4130.3 Terms and Conditions.**

Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve the management and resource condition objectives for public lands and other lands administered by the Bureau of Land Management, and to ensure conformance with the provisions of subpart 4180 of this part.

**§ 4130.3-1 Mandatory Terms and Conditions.**

- (a) The authorized officer shall specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease.
- (c) Permits and leases shall incorporate terms and conditions that ensure conformance with subpart 4180 of this part.

**§ 4130.3-2 Other Terms and Conditions.**

The authorized officer may specify in grazing permits or leases other terms and conditions which will assist in achieving management objectives provide for proper range management or assist in the orderly administration of the public rangelands.

These may include but are not limited to:

- (d) A requirement that permittees or lessees operating under a grazing permit or lease submit within 15 days after completing their annual grazing use, or as otherwise specified in the permit or lease, the actual use made.
- (e) The kinds of indigenous animals authorized to graze under specific terms and conditions;

**§ 4130.3-3 Modification of permits or leases.**

Following consultation, cooperation, and coordination with the affected lessees or permittees, the State having lands or responsible for managing resources within the area, and the interested public, the authorized officer may modify terms and conditions of the permit or lease when the active grazing use or related management practices are not meeting the land use plan, allotment management plan or other activity plan, or management objectives, or is not in conformance with the provisions of subpart 4180 of this part. To the extent practical, the authorized officer shall provide to affected permittees or lessees, States having lands or responsibility for managing resources within the affected area, and the interested public an opportunity to review, comment, and give input during the preparation of reports that evaluate monitoring and other data that are used as a basis for making decisions to increase or decrease grazing use, or to change the terms and conditions of a permit or lease.

**§ 4130.4 (b) Approval of changes in grazing use within the terms and conditions of permits and leases.**

Changes in grazing use within the terms and conditions of the permit or lease may be granted by the authorized officer. Permittees and lessees may apply to activate forage in temporary nonuse or conservation use or to place forage in temporary nonuse or conservation use, and may apply for the use of forage that is temporarily available on designated ephemeral or annual ranges.

**§ 4130.7 Ownership and identification of livestock.**

The authorized officer may require counting and/or additional special marking or tagging of the authorized livestock in order to promote the orderly administration of the public lands.

**§ 4180.1 Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.**

**Administration.**

“The authorized officer shall take appropriate action under subparts 4110, 4120, 4130, and 4160 of this part as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management needs to be modified to ensure that the following conditions exist.

- (a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and

landform and maintain or improve water quality, water quantity, and timing and duration of flow.

- (b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
- (c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.
- (d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species.

### **Right of Protests and/or Appeals:**

#### **Protest**

In accordance with 43 CFR §4160.1 and 4160.2, any applicant, permittee, lessee or other interested public may protest the Proposed Decision of this title, in person or in writing within 15 days after receipt of such decision to:

Roxie Trost  
District Manager  
Colorado River District Office  
2610 Sweetwater Avenue  
Lake Havasu City, Arizona, 86406

The protest, if filed, must clearly and concisely state the reason(s) why the protestant thinks the Proposed Decision is in error.

In accordance with 43 CFR §4160.3 (a), in the absence of a protest, the Proposed Decision will become the Final Decision of the authorized officer without further notice unless otherwise provided in the Proposed Decision.

In accordance with 43 CFR §4160.3 (b), should a timely protest be filed with the authorized officer, the authorized officer will reconsider the Proposed Decision and shall serve the final decision on the protestant and the interested public.

#### **Appeal(s)**

In accordance with 43 CFR §4160.4 any person whose interest is adversely affected by a final decision of the authorized officer may appeal the decision for the purpose of a hearing before an administrative law judge by following the requirements set out in § 4.470 of this title. As stated in that part, the appeal must be filed within 30 days after receipt of the final decision or within 30 days after the date the proposed decision becomes final as provided in § 4160.3(a). Appeals and petitions for a stay of the decision shall be filed at the office of the Authorized Officer. The Authorized Officer shall promptly transmit the appeal and petition for stay and the accompanying administrative record to ensure their timely arrival at the Office of Hearings and Appeals.

Within 15 days of filing the appeal and any petition for stay, the appellant also must serve a copy of the appeal and any petition for stay on any person named in the decision and listed at the end

of the decision, and to

Departmental Cases Hearings Division  
Office of Hearings and Appeals  
U.S. Department of the Interior  
351 South West Temple, Suite 6.300  
Salt Lake City, Utah 84101

Pursuant to 43 CFR 4.471(c), a petition for stay, if filed, must show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of immediate and irreparable harm if the stay is not granted; and,
- (4) Whether the public interest favors granting the stay.

43 CFR 4.471(d) provides that the appellant requesting a stay bears the burden of proof to demonstrate that a stay should be granted.

Any person named in the decision from which an appeal is taken (other than the appellant) who wishes to file a response to the petition for a stay may file with the Hearings Division in Salt Lake City, Utah, a motion to intervene in the appeal, together with the response, within 10 days after receiving the petition. Within 15 days after filing the motion to intervene and response, the person must serve copies on the appellant, the Office of the Solicitor and any other person named in the decision (43 CFR 4.472(b)).

At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service (43 CFR 4.422(c)(2)).

As noted above, the petition for stay must be filed in the office of the authorized officer. If you have any questions, feel free to contact me at (928) 505-1300.

Sincerely,



Roxie Trost  
Colorado River District Manager

cc: Interested Public (see Attached List)

Attachments – 15 (Index page and 14 Items)

## Addressee List

Greta Anderson  
PO Box 2264  
Tucson, AZ 85702

Karen Sussman  
Int'l Society/Protection of Mustangs and Burros  
PO Box 55  
Lantry, SD 87636

Charles "Bill" Hamilton  
7690 W. Quail Ranch Rd.  
Dolan Springs, AZ 86441

Laura Pendley  
7690 W. Quail Ranch Rd.  
Dolan Spring, AZ 86441

Elno Roundy, Consultant  
Arizona Acreage  
4040 N. Skylark Rd.  
Kingman, AZ 86401

Clay and Sandra Overson  
PO Box 6919  
Kingman, AZ 86402

Don Martin  
AZ Wildlife Outfitters  
2644 Broken Arrow St.  
Kingman, AZ 86401

Erik and Tina Barnes  
PO Box 714  
Congress, AZ 85332

Sue Baughman  
PO Box 634  
Dolan Springs, AZ 86441

Anita Waite  
10437 S. Hwy 93  
Kingman, AZ 86401  
Business/Economics: Gary Watson

Tom Finlay  
AZ GAME & FISH DEPT  
5325 Stockton Hill Rd.  
Kingman, AZ 86409

Melissa Hailey  
WILDEARTH GUARDIANS  
312 Montezuma Ave., #A  
Santa Fe, NM 87501

Katherine Deuel  
WILDERNESS WATCH  
PO Box 9175  
Missoula, MT 59807

Gary Watson  
Mohave County Board of Supv.  
PO Box 7000  
Kingman, AZ 86402

Mr. Patrick Bray  
AZ Cattle Growers Assoc.  
1401 N 24th St. Suite 4  
Phoenix, AZ 85008

Jack Ehrhardt  
4105 North Adams Street  
Kingman, AZ 86409

Emmett Sturgill  
12375 Holstein Drive  
Kingman, AZ 86409

**Attachments from**  
Cerbat, Quail Springs, and Fort MacEwen  
Proposed Grazing Management Plan and Permit Renewal  
Environmental Assessment  
DOI-BLM-AZ-C010-2015-0029-EA (2015 CQFM EA)

**Note:**  
To avoid confusion,  
attachments below are numbered identical  
to how they are numbered within the 2015 CQFM EA

Index of Attachments

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**Figures**

1. Figure 3: Map 2. Location of East and West Management units and pasture boundaries within the allotments.
2. Figure 4: Map 3. Existing range improvements.
3. Figure 5: Map 4. Proposed wells, cattleguards, and exclosures in the West Unit.
4. Figure 6: Map 5. Proposed cattleguards, wells, and exclosures in the East Unit.
5. Figure 9: Map 8. Fort MacEwen Allotment proposed improvements.

**Tables**

6. Years 1 and 2 - Table 5. Grazing system schedule for West Management Unit.
7. Years 3 and 4 - Table 5. Grazing system schedule for West Management Unit.
8. Years 1, 2, and 3 - Table 6. Grazing system schedule for East Management Unit
9. Years 4, 5, and 6 - Table 6. Grazing system schedule for East Management Unit
10. Years 7, 8, and 9 - Table 6. Grazing system schedule for East Management Unit
11. **Within Black Mountain Joint Use Area** - Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage.
12. **Outside of Black Mountain Joint Use Area** - Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage.
13. **All key Areas** - Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage.
14. **Table 9.** - Adaptive Management Precipitation Related Scenarios

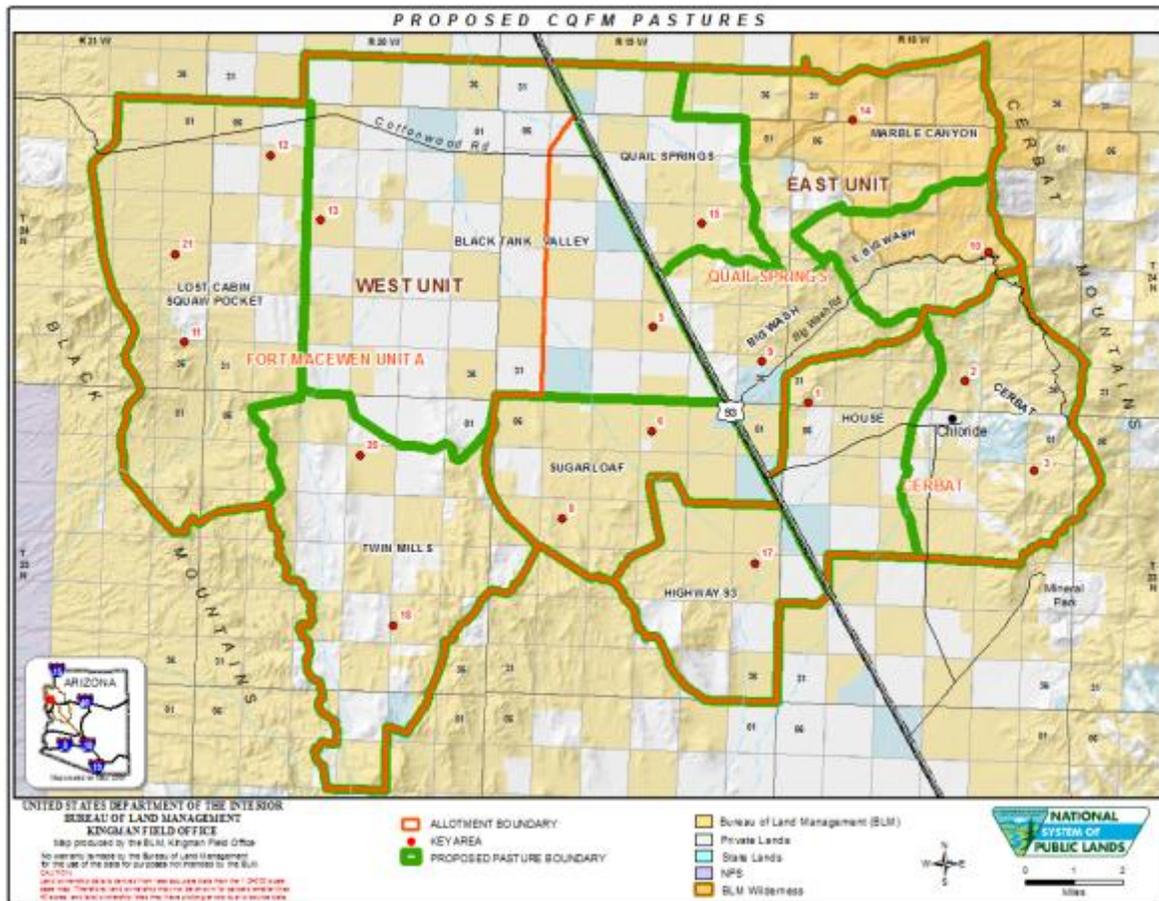


Figure 3: Map 2. Location of East and West Management units and pasture boundaries within the allotments.

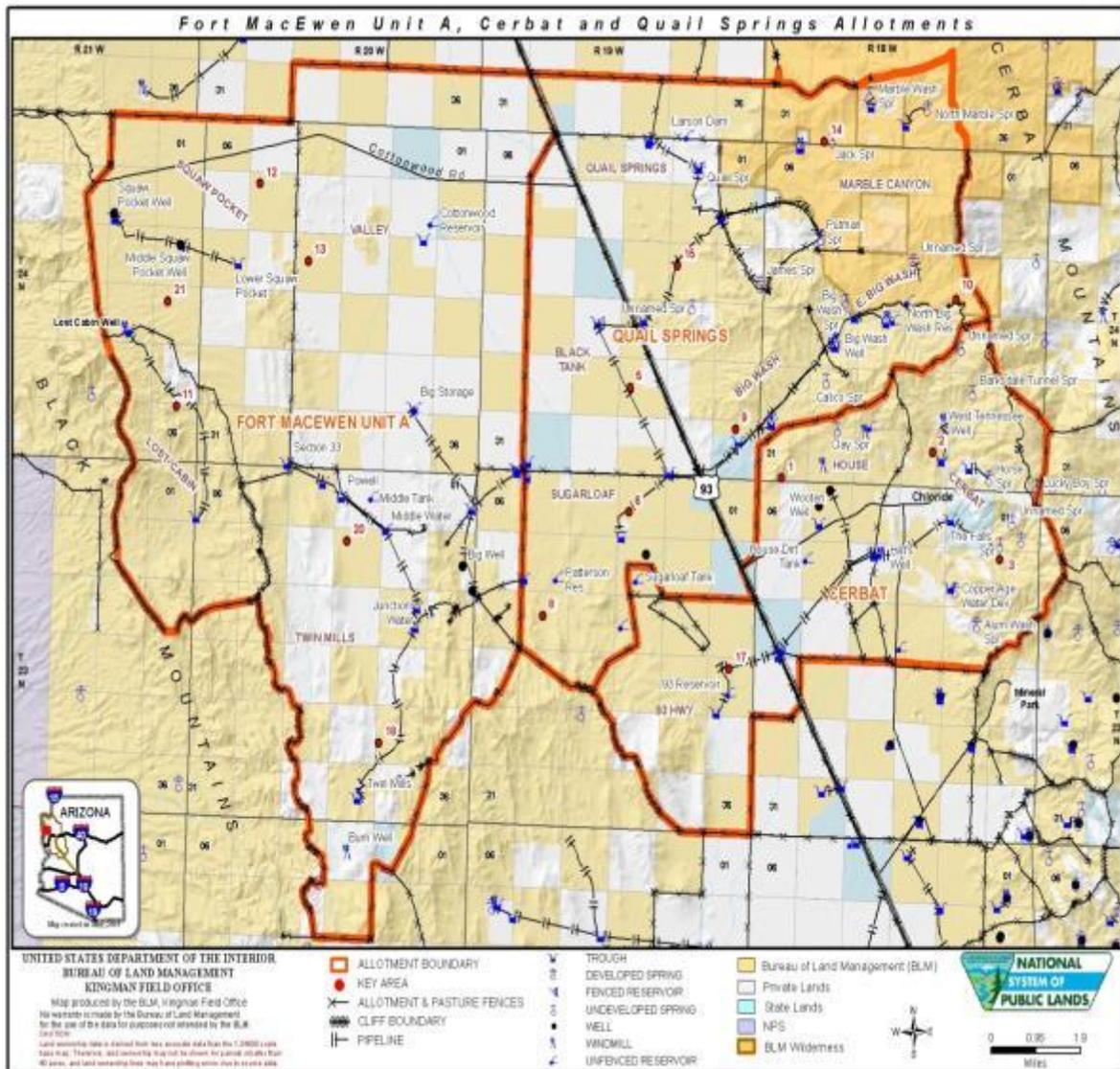


Figure 4: Map 3. Existing range improvements.

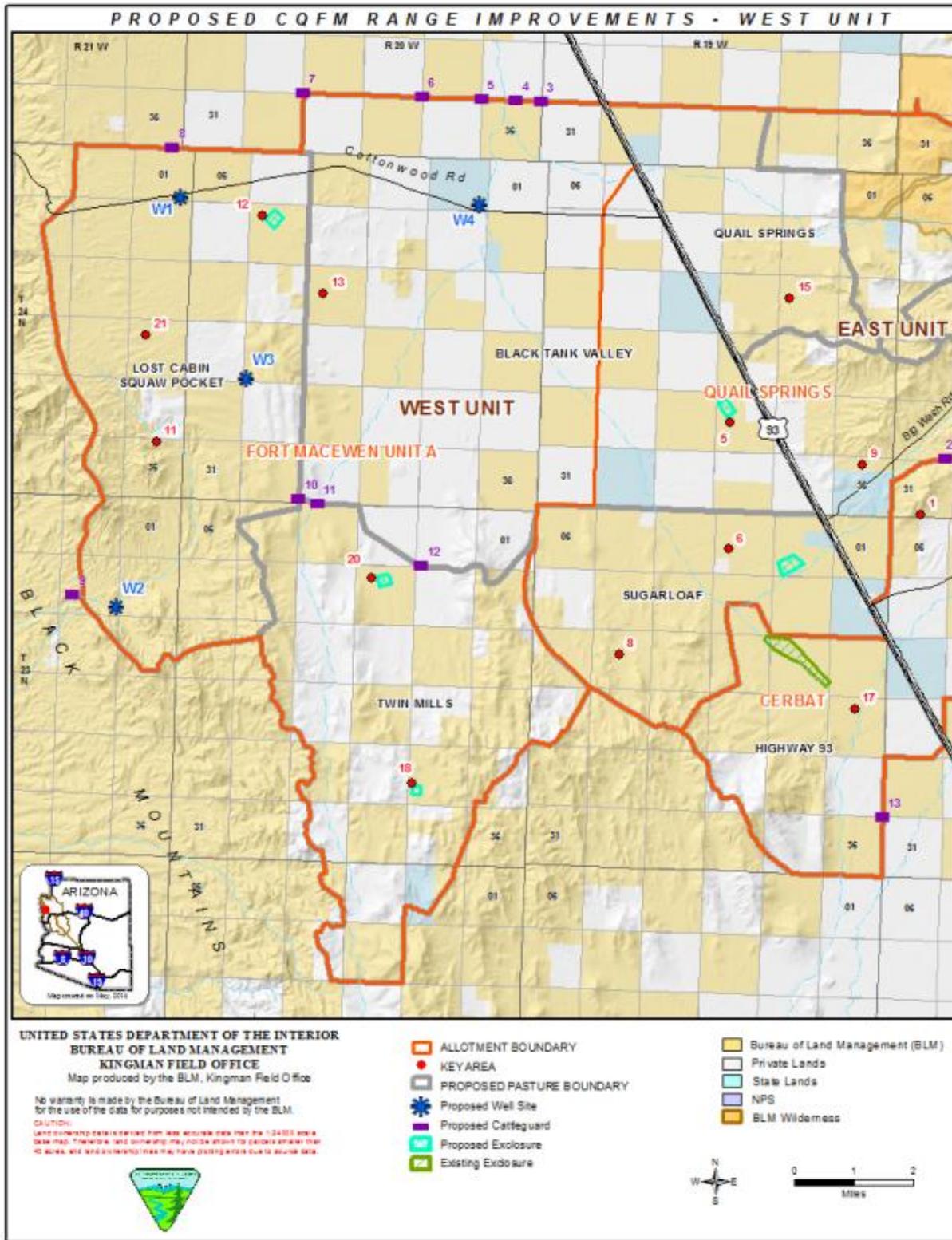


Figure 5: Map 4. Proposed wells, cattleguards, and exclosures in the West Unit.

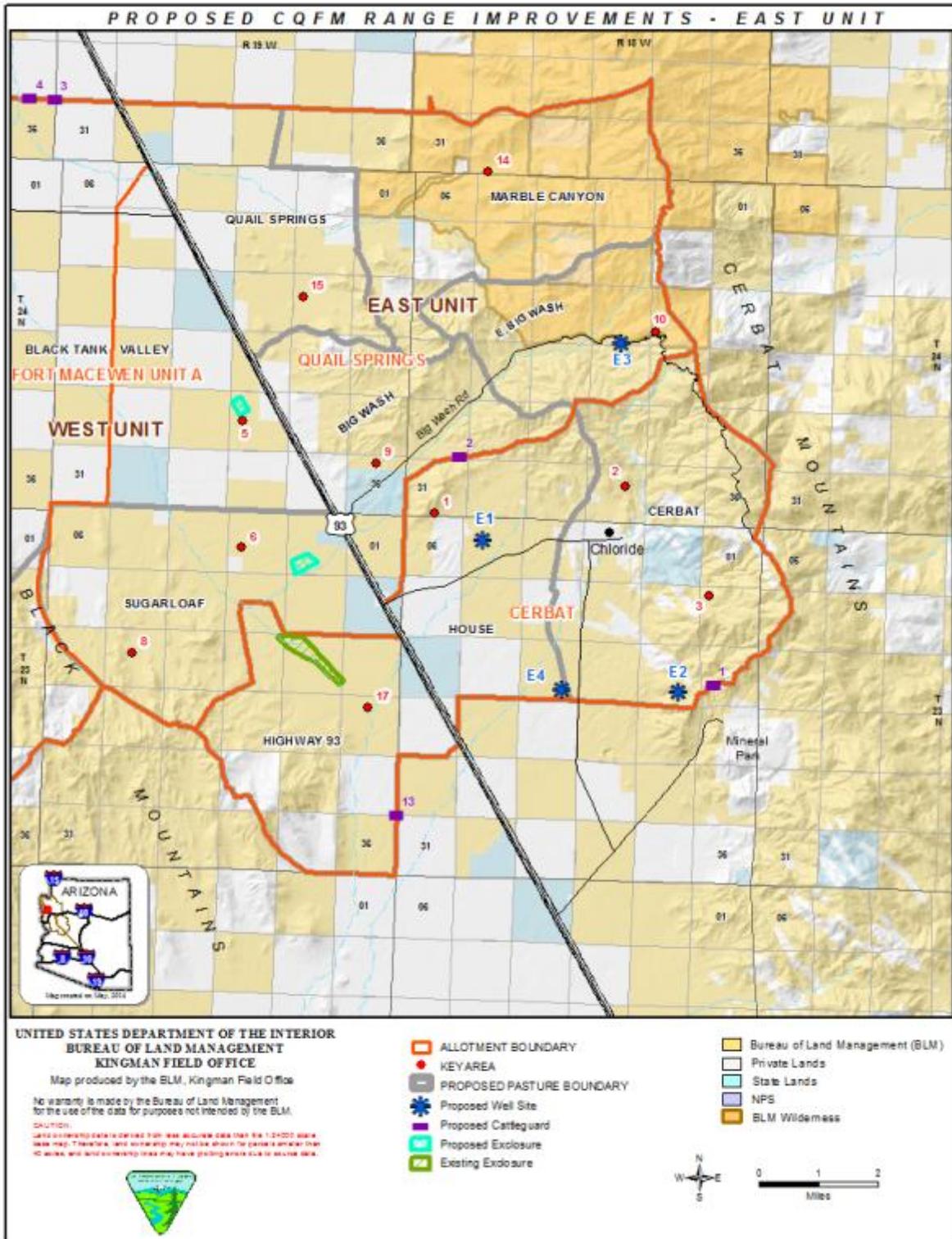


Figure 6: Map 5. Proposed cattleguards, wells, and exclosures in the East Unit.

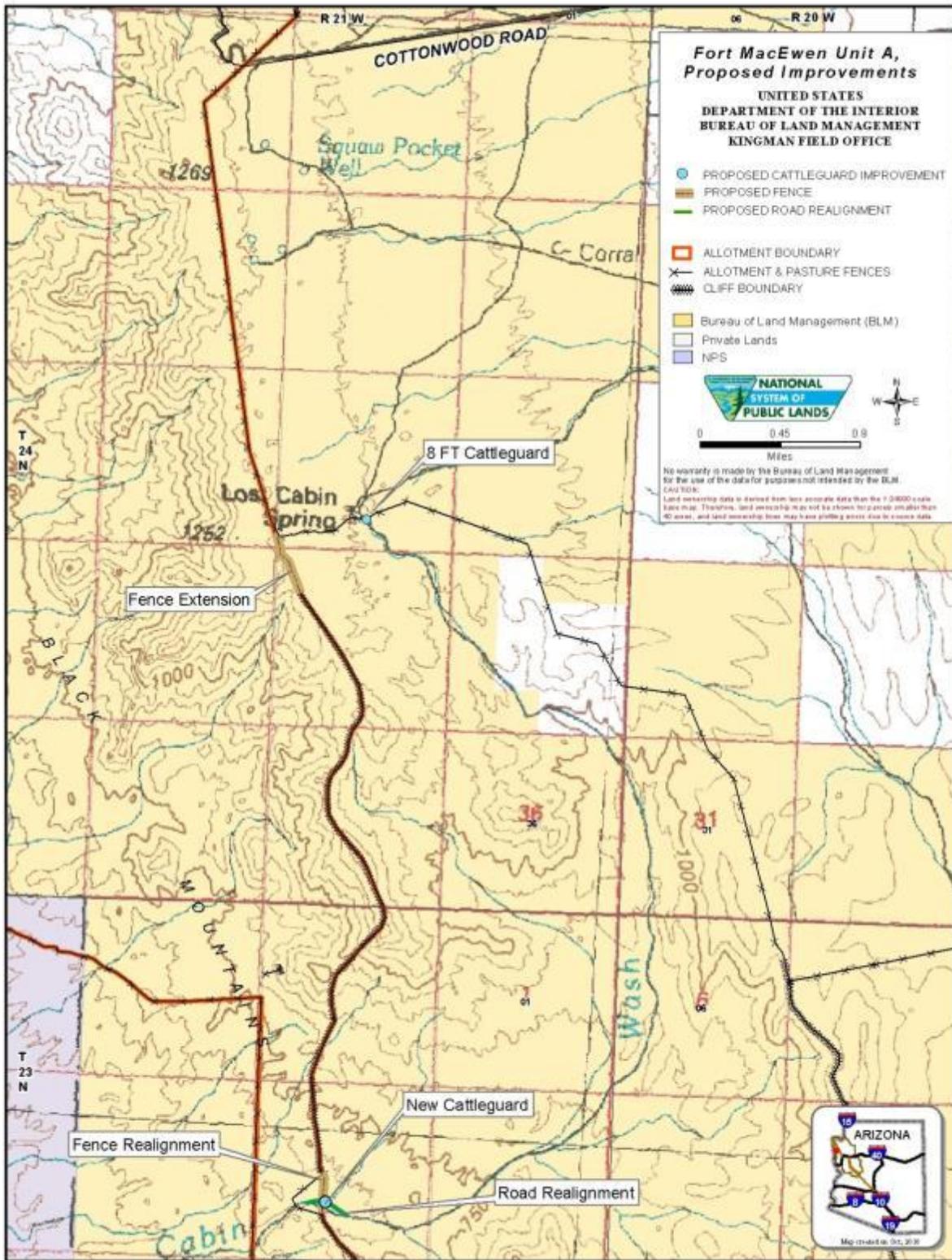


Figure 9: Map 8. Fort MacEwen Allotment proposed improvements.

**Table 5. Grazing system schedule for West Management Unit.**

<b>YEAR 1</b>														<b><i>West Management Unit</i></b>													
<b>Months</b>	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec. 1 wk	Dec. 3 wks	Jan	Feb	Mar	Apr														
<b><i>Pastures</i></b>																											
Black Tank/Valley	Grazed	Rest	Rest	Rest	Rest	Rest																					
Sugarloaf	Grazed	Rest	Rest	Rest	Rest	Rest																					
Squaw P./Lost C.	Rest	Grazed	Grazed	Grazed	Grazed	Grazed																					
Hwy 93	Rest	Grazed	Grazed	Grazed	Grazed	Grazed																					
Twin Mills	Rest	Grazed	Grazed	Grazed	Grazed	Rest	Rest																				

<b>YEAR 2</b>														<b><i>West Management Unit</i></b>													
<b>Months</b>	May	Jun	Jul	Aug	Sep	Oct	Nov. 2 wks	Nov. 2 wks	Dec	Jan	Feb	Mar	Apr														
<b><i>Pastures</i></b>																											
Black Tank/Valley	Grazed	Rest	Rest	Rest	Rest	Rest	Rest																				
Sugarloaf	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed																				
Squaw P./Lost C.	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed																				
Hwy 93	Grazed	Rest	Rest	Rest	Rest	Rest	Rest																				
Twin Mills	Rest	Rest	Grazed	Grazed	Grazed	Rest	Rest																				

**Table 5. Grazing system schedule for West Management Unit (continued).**

<b>YEAR 3</b>														<b><i>West Management Unit</i></b>													
<b>Months</b>	May	Jun	Jul	Aug. 1 wk	Aug. 3 wks	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr														
<b><i>Pastures</i></b>																											
Black Tank/Valley	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed														
Sugarloaf	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed														
Squaw P./Lost C.	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest														
Hwy 93	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest														
Twin Mills	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Rest	Rest														

<b>YEAR 4</b>														<b><i>West Management Unit</i></b>													
<b>Months</b>	May	Jun	Jul	Aug	Sep	OCT. 2 wks	OCT. 2 wks	Nov	Dec	Jan	Feb	Mar	Apr														
<b><i>Pastures</i></b>																											
Black Tank/Valley	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed														
Sugarloaf	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Rest														
Squaw P./Lost C.	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Rest														
Hwy 93	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed														
Twin Mills	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Rest	Rest														

Table 6. Grazing system schedule for East Management Unit.

YEAR 1													<i>East Management Unit</i>		Move
Pastures	May	Jun	Jul	Aug	Sep	Oct	Nov. 3 wks	Nov. 1 wk	Dec	Jan	Feb	Mar	Apr		
House	Grazed	Rest	Rest	Rest	Rest	Rest	Rest								
Big Wash	Grazed	Rest	Rest	Rest	Rest	Rest	Rest								
Quail Springs	Grazed	Rest	Rest	Rest	Rest	Rest	Rest								
Cerbat	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed								
East Big Wash	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed								
Marble Canyon	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed								

YEAR 2													Move	Move
Pastures	May	Jun	Jul	Aug	Sep	Oct. 3wks	Oct. 1 wk	Nov	Dec	Jan	Feb	Mar	Apr	
House	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	
Big Wash	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	
Quail Springs	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	
Cerbat	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	
East Big Wash	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	
Marble Canyon	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	

YEAR 3													Move	Move
Pastures	May	Jun	Jul	AUG. 3 wk:	AUG. 1 wk	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
House	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	
Big Wash	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	
Quail Springs	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	
Cerbat	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	
East Big Wash	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	
Marble Canyon	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	

Table 6. Grazing system schedule for East Management Unit (continued)

<b>East Management Unit</b>													
<b>YEAR 4</b>													
Pastures	May	Move June 3 wks	Move June 1 wk	Jul	Aug	Sep	Oct	Move Nov	Move Dec	Jan	Feb	Mar	Apr
House	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
Big Wash	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
Quail Springs	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
Cerbat	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
East Big Wash	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
Marble Canyon	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
<b>YEAR 5</b>													
Pastures	Move May 3 wks	Move May 1 wk	Jun	Jul	Aug	Sep	Move Oct	Move Nov	Dec	Jan	Feb	Mar	April
House	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Big Wash	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Quail Springs	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Cerbat	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
East Big Wash	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
Marble Canyon	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
<b>YEAR 6</b>													
Pastures	Move May 3 wks	Move May 1 wk	Jun	Jul	Aug	Sep	Move Oct	Move Nov	Dec	Jan	Feb	Mar	Move Apr. 3 wks
House	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Big Wash	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Quail Springs	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Cerbat	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
East Big Wash	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
Marble Canyon	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest

Table 6. Grazing system schedule for East Management Unit (continued)

<b>YEAR 7</b>													
<i>East Management Unit</i>													
	Move				Move		Move			Move		Move	
Pastures	May	May	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb. 3 wk	Feb. 1 wk	Mar	Apr
House	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest
Big Wash	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest
Quail Springs	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest
Cerbat	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed
East Big Wash	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed
Marble Canyon	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed
<b>YEAR 8</b>													
			Move		Move				Move		Move		
Pastures	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec. 3 wks	Dec. 1 wk	Jan	Feb	Mar	Apr
House	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
Big Wash	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
Quail Springs	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest
Cerbat	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
East Big Wash	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
Marble Canyon	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed
<b>YEAR 9</b>													
	Move		Move				Move		Move				Move
Pastures	May	Jun	Jul	Aug	Sep	Oct	Nov. 3 wks	Nov. 1 wks	Dec	Jan	Feb	Mar	Apr
House	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
Big Wash	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
Quail Springs	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed	Rest	Rest	Rest	Rest	Rest	Rest
Cerbat	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
East Big Wash	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed
Marble Canyon	Grazed	Rest	Rest	Rest	Rest	Rest	Rest	Grazed	Grazed	Grazed	Grazed	Grazed	Grazed

**Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage.**

Triggers and Management Actions						
Location	Monitoring Method	Monitoring Frequency	Soft Trigger	Soft Trigger Management Actions	Hard Triggers	Hard Trigger Management Actions
Within Black Mountain Joint Use Area	Key Species Utilization (Key species are listed in Appendix B for each Key Area)  Apparent trend  Or any other accepted BLM methodology	As needed to assess soft and hard triggers.  Expected to be measured 2x/year or more.  Potential monitoring periods: prior to break of plant dormancy, end of spring, end of summer, during and/or at the end of a pasture grazing period. The pasture grazing period is the timeframe when livestock are scheduled to be grazing in a pasture.	>30% utilization during a pasture grazing period.  Reaching the soft trigger will prompt immediate discussion regarding range condition and adjustments to the grazing management to avoid exceeding the hard trigger point.	Move livestock to areas showing less utilization within the same pasture by one or more of the following (or other recommended action[s] to avoid exceeding hard trigger):  <i>-Turn off waters (or restrict access to)</i> <i>-Remove/redistribute salt</i> <i>-Herd cattle</i> <i>-Temporary fencing</i>  Adjust numbers  Use pattern mapping may be conducted to investigate distribution issues and/or utilization levels.	>40% utilization during a pasture grazing period.  >40% utilization during the pasture grazing period for 3 consecutive years, or cattle moved early for 3 consecutive years.  <40% utilization for 3 consecutive years.	Move cattle, shorten time within a given pasture, and/or voluntarily adjust numbers for the next grazing period.  *Adjust numbers, move cattle, or shorten time within a given pasture.  Increase time within a pasture, keep current management without changes, or *adjust numbers.

Adjustment in stocking rates based on utilization data: see example on following page (Scenario 1)

<sup>1</sup>AU days ÷ <sup>^</sup>30.4 = adjusted AUMs for the next grazing period (AUMs that would be expected to not exceed utilization trigger)

<sup>1</sup>AU days = actual days to meet utilization level x number of AUs

<sup>^</sup>30.4 = average number of days per month; calculated as 365 days per year ÷ 12 months per year

\*Note: Two scenarios are presented on the following page, each of which is for one year only.

The hard utilization trigger would have to be exceeded for 3 consecutive years.

**Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage (continued).**

Triggers and Management Actions						
Location	Monitoring Method	Monitoring Frequency	Soft Trigger	Soft Trigger Management Actions	Hard Triggers	Hard Trigger Management Actions
Outside Black Mountain Joint Use Area	Key Species Utilization (Key species are listed in Appendix B for each Key Area)  Apparent trend  Or any other accepted BLM methodology	As needed to assess soft and hard triggers.  Expected to be measured 2x/year or more.  Potential monitoring periods: prior to break of plant dormancy, end of spring, end of summer, during and/or at the end of a pasture grazing period. The pasture grazing period is the timeframe when livestock are scheduled to be grazing in a pasture.	>40% utilization during a pasture grazing period.  Reaching the soft trigger will prompt immediate discussion regarding range condition and adjustments to the grazing management to avoid exceeding the hard trigger point.	Move livestock to areas showing less utilization within the same pasture by one or more of the following (or other recommended action[s] to avoid exceeding hard trigger):  <i>-Turn off waters (or otherwise restrict access)</i> <i>-Remove/redistribute salt</i> <i>-Herd cattle</i> <i>-Temporary fencing</i>  Adjust numbers  Use pattern mapping may be conducted to investigate distribution issues and/or utilization levels.	>50% utilization during a pasture grazing period.  >50% utilization during the pasture grazing period for 3 consecutive years, or cattle moved early for 3 consecutive years.  <50% utilization for 3 consecutive years.	Move cattle, shorten time within a given pasture, and/or voluntarily adjust numbers for the next grazing period.  *Adjust numbers, move cattle, or shorten time within a given pasture.  Increase time within a pasture or keep current management without changes, *adjust numbers.

Adjustment in stocking rates based on utilization data: see example below (Scenario 2)

<sup>1</sup>AU days ÷ <sup>^</sup>30.4 = adjusted AUMs for the next grazing period (AUMs that would be expected to not exceed utilization trigger)

<sup>1</sup>AU days = actual days to meet utilization level x number of AUs

<sup>^</sup>30.4 = average number of days per month; calculated as 365 days per year ÷ 12 months per year

**Scenario 1**

In pasture #1, the plan is to place 75 AUs (cows) in this pasture for 120 days while remaining at or below a 40%\* utilization (util.) level.

\*However, the utilization level of 40% is reached at day 97.

Calculate adjustment as follows:

Planned AUMs = 120 days x 75 AUs/30.4 = 296 AUMs

Actual AUMs = 97 days x 75 AUs/30.4 = 239 AUMs

% of planned time in pasture

% of planned AUMs used in pasture

#1:  $\frac{\text{actual days used (97)}}{\text{planned days (120)}}$

#1:  $\frac{\text{actual AUMs used (239)}}{\text{planned AUMs (296)}}$

=  $97/120 = 0.808$  or 81%

=  $239/296 = 0.807$  or 81%

Reduction in time of 19% = 120 days x 0.19 = 22.8 day reduction

Or Reduction in AUMs of 19% = 296 AUMs x 0.19 = 56.2 AUM reduction

**Scenario 2**

In pasture #2, the plan is to place 105 AUs in this pasture for 145 days while remaining at or below a 50%\* utilization level.

\*However, after 145 days the utilization level only reaches 41%.

Calculate adjustment as follows:

Planned utilization (util.) level of 50% = 145 days x 105 AUs ÷ 30.4 = 500.8 AUMs

Actual util. level of 41% = actual util. (41%) ÷ planned util. (50%) =  $41 \div 50 = 0.82$  or 82%

The remaining 9% portion = an increase in AUMs or time of 18%

Increase in AUMs of 18% = 500.8 AUMs x 0.18 = 90 AUM increase in stocking rate

Increase in time of 18% = 145 days x 0.18 = 26 day increase in this pasture

**Table 8. Triggers and management actions based on key species utilization, long-term trend data, and ephemeral forage (continued).**

Triggers and Management Actions						
Location	Monitoring Method	Monitoring Frequency	Soft Trigger	Soft Trigger Management Actions	Hard Triggers	Hard Trigger Management Actions
All Key Areas	Long Term Vegetation Trend includes frequency, dry-weight rank (relative composition), repeat photography, and ground cover estimates	Minimum of 1x/5 years	N/A	N/A	<p>Key species frequency significantly increases, cover and composition objectives meet or make progress towards meeting objectives.</p> <p>Key species frequency significantly decreases, cover and composition objectives do not meet or make progress towards meeting objectives.</p>	<p>Adjust stocking rate, adjust period of use, or continue with current management.</p> <p>Adjust stocking rate, adjust period of use, or adjust use limits.</p>
All pastures where ephemeral growth occurs.	Ephemeral forage	Seasonally, when ephemeral bloom occurs.	N/A	N/A	Apply the ephemeral rule. When in desert tortoise habitat 280 pounds per acre of ephemeral forage is needed prior to turnout.	<p>Complete ephemeral inspection and evaluation worksheet.</p> <p>Authorize ephemeral grazing in accordance with applicable laws, regulations, and other guidance, including Instruction Memorandum AZ-94-018.</p> <p>Assess utilization on perennial and ephemeral forage during grazing and following livestock removal.</p> <p>&gt;50% use on ephemeral forage allowed in focused fuels reduction areas.</p>

Table 9. Adaptive Management Precipitation Related Scenarios

<b>Table 9. Adaptive Management Precipitation Related Scenarios</b>		
<b>Precipitation/ Vegetation Condition</b>	<b>Grazing Management Response</b>	<b>Additional Considerations</b>
Normal (Not Drought)	Follow grazing rotation schedule.	Continue to monitor utilization and precipitation/soil moisture.
Above Normal (Not Drought) Abundant Ephemeral Forage	Move cattle to pastures with abundant ephemeral forage until forage begins to cure. Then resume grazing rotation schedule.	Consider movement of cattle to areas with ephemeral forage or leave livestock in current pasture longer to take advantage of additional ephemeral forage. Continue to monitor utilization and precipitation/soil moisture.
Below Normal (*Abnormally Dry to Moderate Drought)	Follow grazing rotation schedule.	Review current allotment specific conditions and outlook. Determine if changes in grazing management are needed including adjusting rotation, adjusting numbers, utilizing temporary water hauls, herding etc. Continue to monitor utilization and precipitation/soil moisture.
Below Normal (*Severe to Exceptional Drought)	Open all gates and spread cattle into all pastures with the exception of pastures at or above their use limits (40% or 50%). Adjust numbers to be in balance with available forage.	Review current allotment specific conditions and outlook. Determine if additional changes in grazing management are needed including adjusting numbers and rotation, utilizing temporary water hauls, etc. Determine when livestock would be returned to the rotation and how management should proceed after the drought breaks. Continue to monitor utilization and precipitation/soil moisture.  Adjust numbers to be in balance with available forage. Continue with plan including grazing schedule and monitoring. Monitor post-drought to determine plant community condition and the need for additional rest. Consider implementing Howery(1999) management options.