

AZ STANDARDS AND GUIDELINES EVALUATION

□ Clyne Ranch Allotment No. 1370

SCOPE OF EVALUATION

The Allotment Assessment was conducted in accordance with the direction set forth in the Bureau of Land Management (BLM) Head Quarters (formerly, Washington Office) Instruction Memorandum No. 98-91 and BLM Arizona No. 99-012 for implementation of Standards for Rangeland Health and Guidelines for Grazing Administration. The purpose of the standards and guidelines is to provide a measure (standard) to determine land health, and methods (guidelines) to improve the health of the public rangelands. The standards are intended to aid the Bureau, rangeland users, and others focus on a common understanding of acceptable resource conditions. The guidelines provide a basis for working together to achieve that vision.

The Arizona State Director approved the Decision Record for implementation of Arizona Standards for Rangeland Health and Guidelines for Grazing Administration Environmental Assessment in April 1997. This decision became effective upon approval of the Arizona standards and guidelines by the Secretary of Interior in April 1997. The Decision Record allowed for full implementation of Arizona Standards for Rangeland Health and Guidelines for Grazing Administration in all Arizona BLM Land Use Plans.

Definition of Standards and Guidelines

Standards of rangeland health are expressions of levels of physical and biological conditions or degree of function required for healthy, sustainable rangelands and defines minimum resource conditions that must be achieved and maintained. Determination of rangeland health is based upon conformance with the standards. Application of the standard to the range site considers the potential of the site without regard for the types or levels of use or management actions or decisions.

Guidelines consider type and level of grazing use. Guidelines for grazing management are the methods and practices determined to be appropriate to ensure the standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools that help managers and permittees/lessees achieve the standards. Guidelines are specific to livestock grazing. Guidelines are best management practices such as grazing systems that could be used to achieve rangeland health standards.

Although the process of developing standards and guidelines applies to grazing administration, present rangeland health is the result of the interaction of many factors in addition to grazing livestock. Other contributing factors may include, but are not limited to, past land uses, land use restrictions, recreation, wildlife, rights-of-way, wild horses and burros, mining, fire, weather, and insects and disease (Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, 1997). With the commitment of BLM to ecosystem and interdisciplinary resource management, the standards for rangeland health as developed in this current process

will be incorporated into management goals and objectives. The standards and guidelines for rangeland health for grazing administration, however, are not the only considerations for addressing resource issues (Arizona Standards for Rangeland Health and Guidelines for Grazing Administration, 1997).

The purpose of this evaluation is to determine if existing multiple uses are meeting the Arizona Standards for Rangeland Health and Guidelines for grazing administration along with appropriate land use plan and activity plan objectives.

ALLOTMENT PROFILE:

The Clyne Ranch Allotment is located in Pima County, Arizona and is approximately 10 miles east of Sonoita and 20 miles northeast of Sierra Vista. The allotment boundary is on the west side of the Whetstone Mountains and north of Highway 82. The current livestock operation on BLM administered lands is 12 cattle, yearlong. All the allotment’s watersheds drain into the Cienega Creek. There is no free-flowing surface water on the allotment.

Elevation on the Clyne Ranch Allotment is approximately 5,050 feet. The Whetstone Mountains are located just to the east of the allotment. The allotment is made up mostly of loamy upland, limy slopes, granitic upland, volcanic hills and sandy wash ecological sites.

LAND STATUS

Land Status	Acres
Public Land	640
State Land	1,120
Pima County	880
U.S. Forest Service	2,880
Private Land	96
TOTAL	5,616

Terms and Conditions of Current Lease:
Mandatory Terms and Conditions:

01370 Clyne Ranch 12 cattle from 3/1 to 2/28 100 % PL 144 AUMs

Rangeland Classification:
Perennial X Ephemeral

Other Terms and Conditions:

1. If in connection with allotment operations under this authorization, any human remains, funerary objects, sacred objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the lessee shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The lessee shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.
2. A use limit of 30-40% of current year's average annual production is in effect, to be measured on key forage species at permanent vegetation transects. The use limit will ensure the physiological needs of the plants and multiple use objectives are being met. (CFR 43 4130.3-2).
3. Actual use information will be submitted within 15 days of the end of the grazing year in accordance with 43 CFR 4130.3-2(d). Actual use reports will identify the amount of livestock use and period of use for each water source/pasture.

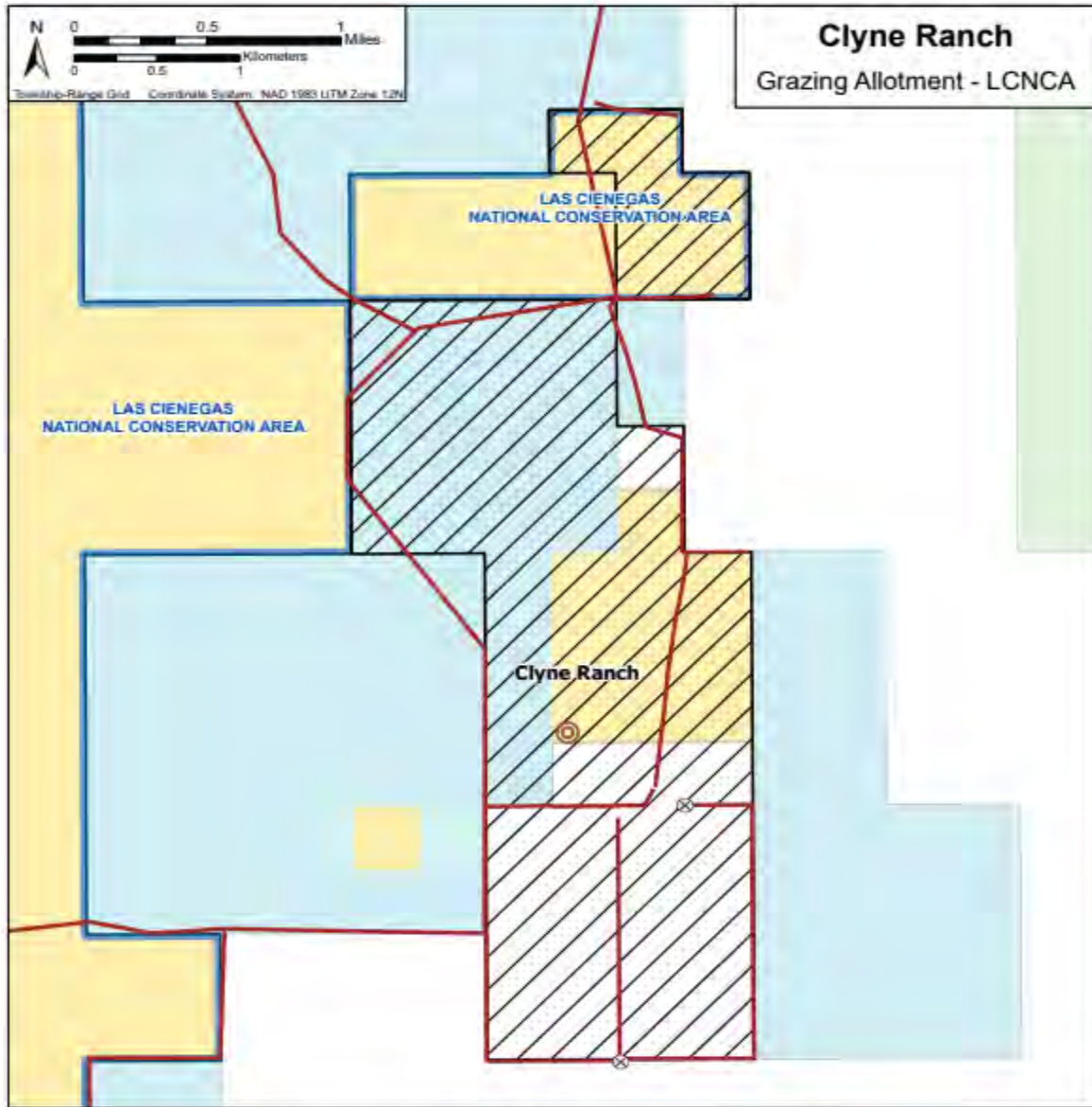
See Attachment for Standard Terms and Conditions

GRAZING MANAGEMENT:

The allotment is a mix of BLM, State, U.S. Forest Service, Pima County, and private land. A map below shows the BLM, State and private land within the Clyne Ranch grazing allotment. The BLM acreage of the allotment supports a 12-cow yearlong operation. The management of the allotment revolves around rotating through the pastures, which allows for a rest-rotation grazing system for plant reproduction and growth in grazed pastures.

The public lands on the Clyne Ranch allotment were acquired in a land exchange with Phelps Dodge in 2005. Prior to the acquisition into federal ownership, the land had been leased for yearlong grazing. The acreage was brought into federal ownership with acknowledgement of the prior grazing use, and the land was leased by BLM at the same rate of use by cattle for yearlong grazing.

Map of Clyne Ranch grazing allotment



- Clyne Ranch Grazing Allotment
 - BLM National Conservation Area
- Range Improvements**
- Cattleguard
 - Dirt Tank or Reservoir
 - Fence

- Surface Management Agency**
- Bureau of Land Management
 - Private
 - State
 - US Forest Service

This product may not meet BLM standards for accuracy and content. Different data sources and input scales may cause some misalignment of data layers. No warranty is made by the BLM for the use of this map for purposes not intended by the BLM.



U.S. Department of the Interior
Bureau of Land Management
Tucson Field Office
Map Prepared: 2/14/2024



VEGETATION/SOILS

The U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) characterizes land resource regions by soils, climate, water resources and land uses. These resource regions are then grouped into Major Land Resource Areas (MLRAs). MLRAs are then broken down further into ecological sites, which are associated units of soil types and vegetation communities with similar characteristics and responses to disturbances. The BLM portion of the Clyne Ranch Allotment is in MLRA 41. Vegetation on the allotment is dominated by the Semi-desert Grassland community. The allotment is made up mostly of loamy upland, limy slopes, granitic upland, volcanic hills, and sandy wash ecological sites in the 12-to-16-inch precipitation zone.

Non-native, Lehman's lovegrass (*Eragrostis lehmanniana*) is the dominant grass species but other native grasses such as gramma grasses, curly mesquite (*Hilaria belangeri*) and tobosagrass (*Pleuraphis mutica*) are common throughout the allotment. Tree and shrub species include: velvet mesquite (*Prosopis velutina*), burrowed (*Isocoma tenuisecta*), whitethorn acacia (*Vachellia constricta*), mimosa (*Mimosa aculeaticarpa*), oneseed juniper (*Juniperus monosperma*) and sandpaper bush (*Mortonia scabrella*). Some areas contain denser velvet mesquite and whitethorn acacia cover. Oneseed junipers are in the main drainage on the BLM portion of the allotment.

Cool season plants start growth in early spring and mature in early summer. Warm season plants take advantage of warm, summer rains and are growing and palatable in July-September. Warm season grasses may remain green throughout the year depending on weather conditions.

The plant communities found on an ecological site are naturally variable. Existing communities are the result of the combination of historical and recent uses and natural events or disturbances. Composition and production will vary with yearly weather conditions, site location, aspect, slope, and the natural spatial variability of the soils. The Historical Climax Plant Community represents the pre-European settlement potential plant community found on relatively human-undisturbed sites.

The soils on the allotment are generally deep and have formed by loamy alluvium of mixed origin. Soil surfaces range from very gravelly sandy loam to loam. Sandy loam surfaces are no thicker than four inches and are not less than one inch. They are not calcareous in the upper 20 inches. These soils can have argillic horizons near the surface, as well as calcic horizons at moderate depths (20 to 40 inches). Soil surfaces are typically dark colored.

WATER QUALITY

There is no Section 303d Water Quality Limited Stream Segment associated with the allotment. Based on current information, there are no other concerns about water or water quality that should be considered before permit issuance.

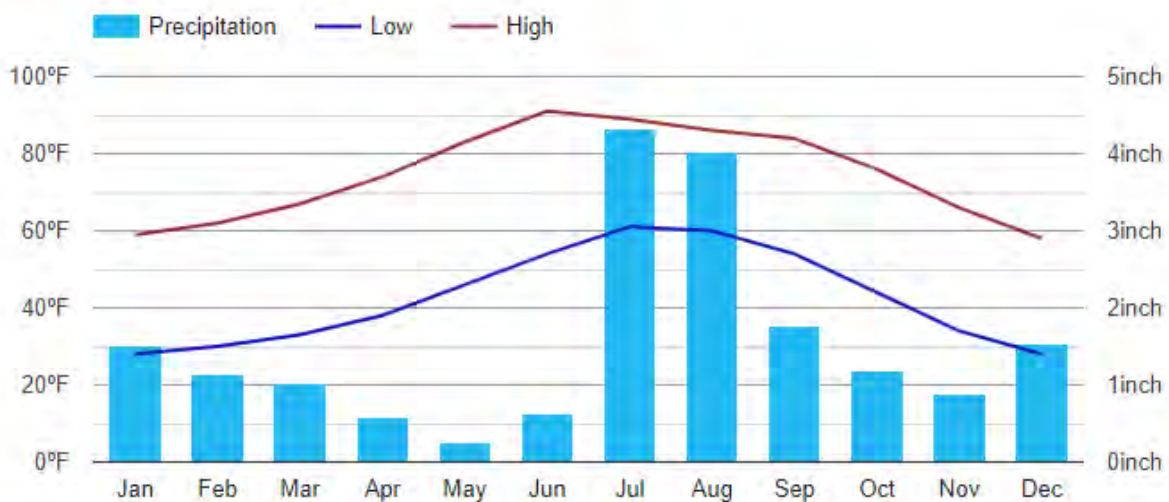
CLIMATE

Precipitation in this common resource area ranges from 12-16 inches yearly in the eastern part with elevations from 3,600-5,000 feet, and 13-17 inches in the western part where elevations are 3,300-4,500 feet. Winter-Summer rainfall ratios are 40-60% in the west and 30-70% in the east. Summer rains fall July-September, originating from the Gulf of Mexico and are convective, usually brief, and high-intensity thunderstorms (e.g., North American Monsoon patterns). Cool season moisture tends to be frontal, originating from the Pacific and Gulf of California, and rain falls in widespread storms with long duration and low intensity. Snow rarely lasts more than one day. May and June are the driest months of the year. Humidity is generally very low.

Local observations of recent cumulative rainfall are publicly available via the University of Arizona's [MyRaingeLog](https://myraingelog.arizona.edu/public/reports?gids=4934f330-b412-11eb-9a52-598b2000ce1f&prebuilt=true): <https://myraingelog.arizona.edu/public/reports?gids=4934f330-b412-11eb-9a52-598b2000ce1f&prebuilt=true>

Temperatures are mild, typically with temperate to warm conditions. Freezing temperatures are common at night from December-April; however, temperatures during the day are frequently above 50°F. Occasionally in December-February, brief 0°F temperatures may be experienced some nights. During June, July and August, some days may exceed 100°F.

Elgin Climate Graph - Arizona Climate Chart



Source: www.usclimatedata.com

Climate Elgin - Arizona

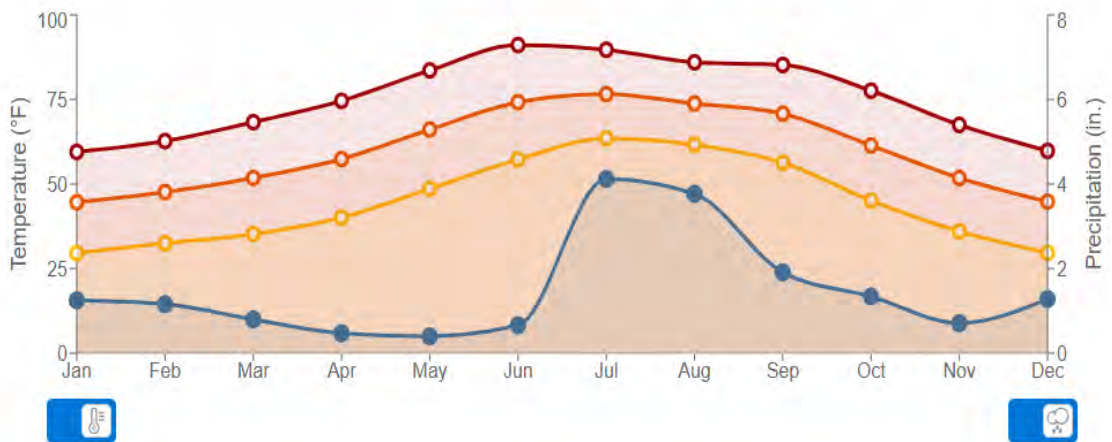


	Jan	Feb	Mar	Apr	May	Jun
Average high in °F	59	62	67	74	83	91
Average low in °F	28	30	33	38	46	54
Av. precipitation in inch	1.52	1.14	1.03	0.58	0.25	0.63



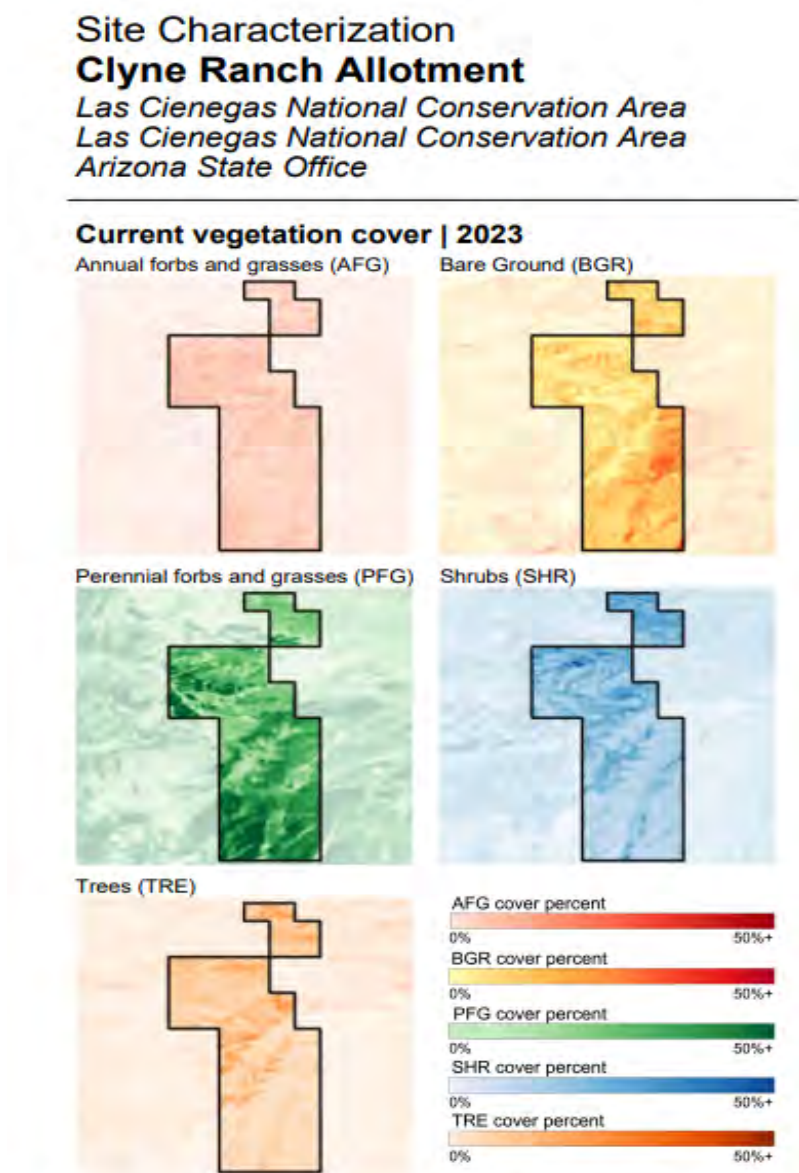
	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °F	89	86	84	76	66	58
Average low in °F	61	60	54	44	34	28
Av. precipitation in inch	4.32	4.03	1.77	1.18	0.88	1.53

Source: www.usclimatedata.com



Month	• MAX TEMP (°F)	• MIN TEMP (°F)	• AVG TEMP (°F)	• PRECIP (IN)
Jan	59.5	29.6	44.6	1.25
Feb	62.7	32.5	47.6	1.16
Mar	68.3	35.2	51.8	0.80
Apr	74.6	40.1	57.4	0.47
May	83.6	48.6	66.1	0.40
Jun	91.1	57.3	74.2	0.66
Jul	89.7	63.5	76.6	4.12
Aug	86.0	61.6	73.8	3.77
Sep	85.2	56.3	70.8	1.91
Oct	77.6	45.1	61.4	1.34
Nov	67.5	36.0	51.8	0.71
Dec	59.8	29.7	44.8	1.28

The following two figures were sourced from the [Climate Engine BLM Climate & Remote Sensing Data Reports Tool](#) for the Clyne Ranch Allotment. Remote sensing-derived vegetation and bare ground percent cover estimates are depicted followed by climate and drought timeseries summaries.



This report is produced by the ClimateEngine.org team at Desert Research Institute and uses Rangeland Analysis Platform v3 (USDA-ARS) and gridMET (UC-Merced) datasets. For more information, visit support.climateengine.org.

NOTE: This report should not be used in isolation from other lines of evidence.
Generated on 2024-02-12
The data in this report is current through the end of 2023

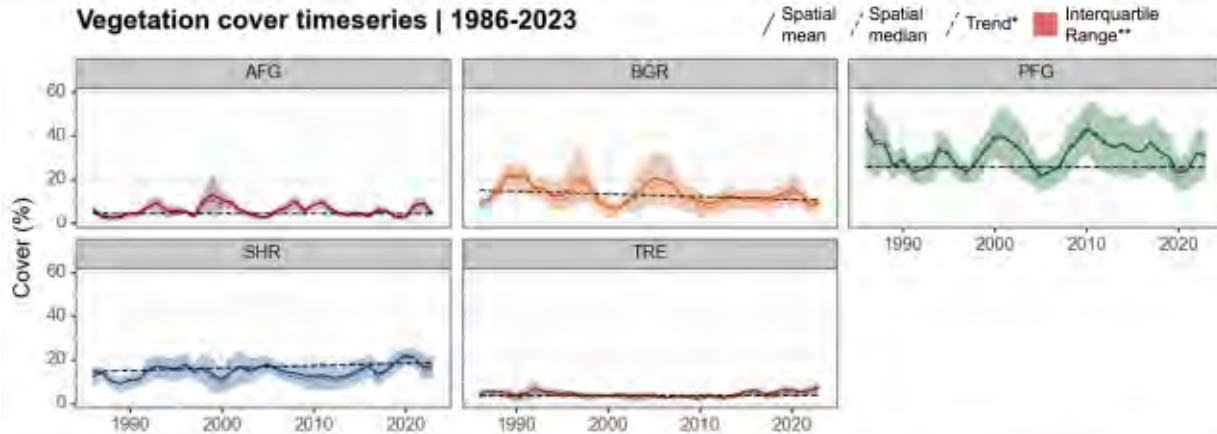
In 2023, perennial forbs and grasses were estimated to be the highest land cover class overall with shrub, tree, and bare ground cover higher in isolated drainages.

Vegetation condition and trend

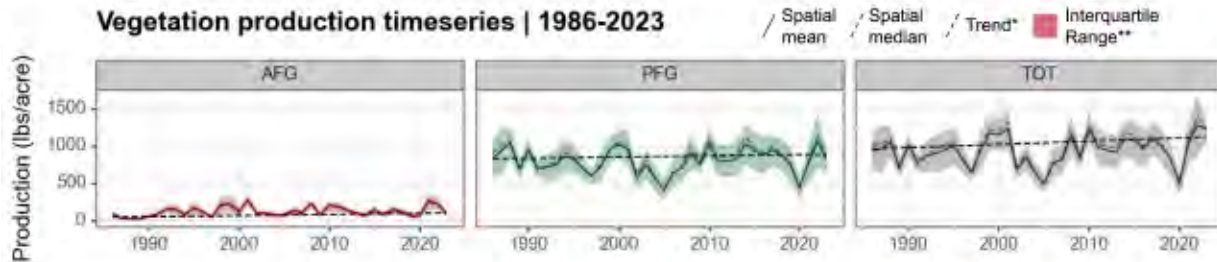


Type	Current conditions 2023					Trends 1986-2023*				
	AFG	BGR	PFG	SHR	TRE	AFG	BGR	PFG	SHR	TRE
Vegetation Cover (%)	4.0	9.7	30.9	17.3	7.6	-0.0	-0.13	-0.01	+0.11	+0.0
Vegetation Production (lbs/acre)	92.3	NA	815.4	NA	NA	+1.5	NA	+1.65	NA	NA

Vegetation cover timeseries | 1986-2023



Vegetation production timeseries | 1986-2023



Climate and drought

Summary | 1986-2023

Annual precipitation

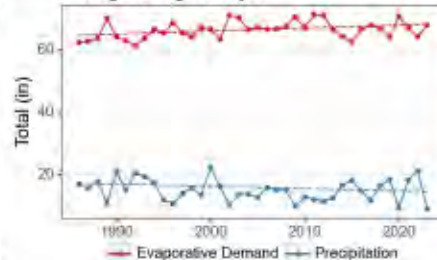
Average: 14.95 in
Trend*: -0.07 in/year

Annual evaporative demand

Average: 66.39 in
Trend*: +0.1 in/year

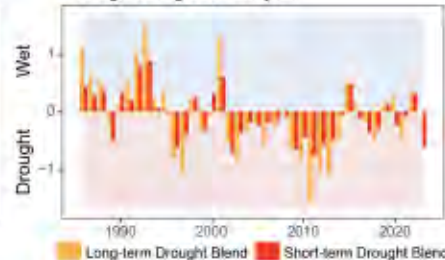
Water balance timeseries

Average during water year



Drought timeseries

Average during calendar year



* Trends are calculated as Theil-Sen regression based on the spatial mean over the land unit during the period of record (1986-present). Trends in vegetation cover will vary across the land unit and care should be taken when interpreting trend values. In the 'Vegetation condition and trend' table, trends are represented as change per year in the native units (e.g. for Vegetation Cover, % change/year).

** The interquartile range is the spatial 25th - 75th percentile.

Trends in forb and grass cover remained relatively neutral from 1986-2023, with bare ground decreasing and shrub cover increasing. Annual and perennial estimated production is estimated to have increased over the 1986-2023 timeframe, where the perennial production trend may be due to the increase in non-native Lehmann's lovegrass cover. During the same 37-year period, annual precipitation has decreased with an increase in evaporative demand (e.g., "pull" of water by the atmosphere from the earth surface).

WILDLIFE

The allotment contains a diverse population of wildlife. Wildlife species known to occur in the area are mule deer, pronghorn antelope, coyotes, various reptiles, rodents, raptors and songbirds. The allotment is open grasslands making it suitable pronghorn habitat.

The Taylor Grazing Act of 1934 implemented the adjudication of grazing privileges which comply with the Federal Range Code for grazing, 43 CFR 4100. Wildlife was also considered in the process, and historically, AUMs were allocated for both livestock and wildlife. This does not, however, accurately reflect the amount of forage available to wildlife.

Typically, the grazing strategy is to allow for an average utilization of 40-50 percent of the key species. This utilization level does not differentiate between use by livestock or wildlife. The remaining vegetation is available for plant health and reproduction, soil protection, and other resources such as wildlife cover.

The Las Cienegas Resource Management Plan, however, implements a lower grazing utilization limit of 30-40 percent of current year's growth on key perennial grass species. This assures that the physiological requirements of plant growth, rest, and reproduction are met for the key species to ensure progress towards meeting land health standards and multiple use objectives. Adhering to the conservative and allowable use of 30-40 percent allows adequate forage for both wildlife and livestock. Based on the available vegetation data that BLM has collected, the BLM land within the allotment is maintaining and improving wildlife habitat and providing for wildlife needs by providing forage and cover.

THREATENED AND ENDANGERED (T&E) SPECIES

The Bureau has reviewed the US Fish and Wildlife Service species list for the allotment (IPaC, 2024). The list indicated 16 species may potentially be present and one critical habitat overlaps the allotment boundary. The table below lists the species and the determination of effects to those species.

Common Name	Scientific Name	Listing Status	Effect Determination
California least tern	<i>Sternula antillarum browni</i>	E	No effect, no known occupancy in allotment; suitable habitat greater than 10 miles away

Cactus ferrigionus pygmy owl	Glauclidium brasilianum cactorum	T	No effect, no known occupancy in allotment; suitable habitat greater than 10 miles away
Desert pupfish	Cyprinodon macularius	E	No effect, no known occupancy in allotment
Gila Chub	Gila intermedia	E	No effect, no known occupancy in allotment
Gila topminnow	Poeciliopsis occidentalis occidentalis	E	No effect, no known occupancy in allotment
Huachuca water umbel	Lilaeopsis schaffneriana ssp. Recurva	E	No effect, no known occupancy in allotment
Jaguar	Panthera onca	E	May affect, not likely to adversely affect.
Arizona eryngo	Eryngium sparganophyllum	E	No effect, no known occupancy in allotment
Mexican spotted owl	Strix occidentalis lucida	T	No effect, no known occupancy in allotment
Ocelot	Leopardus (=Felis) pardalis	E	No effect, no known occupancy in allotment
Mexican wolf	Canis lupus baileyi	EXPN	No effect, no known occupancy in allotment
Sonoyta mud turtle	Kinosternon sonoriense longifemorale	E	No effect, no known occupancy in allotment
Monarch butterfly	Danaus Plexippus	C	May affect, not likely to adversely affect
Southwestern willow flycatcher	Empidonax traillii extimus	E	No effect, suitable habitat greater than 10 miles away
Chiricahua leopard frog	Rana chiricahuensis	T	No effect, no known occupancy in allotment
Yellow-billed cuckoo	Coccyzus americanus	T	No effect, no known occupancy in allotment

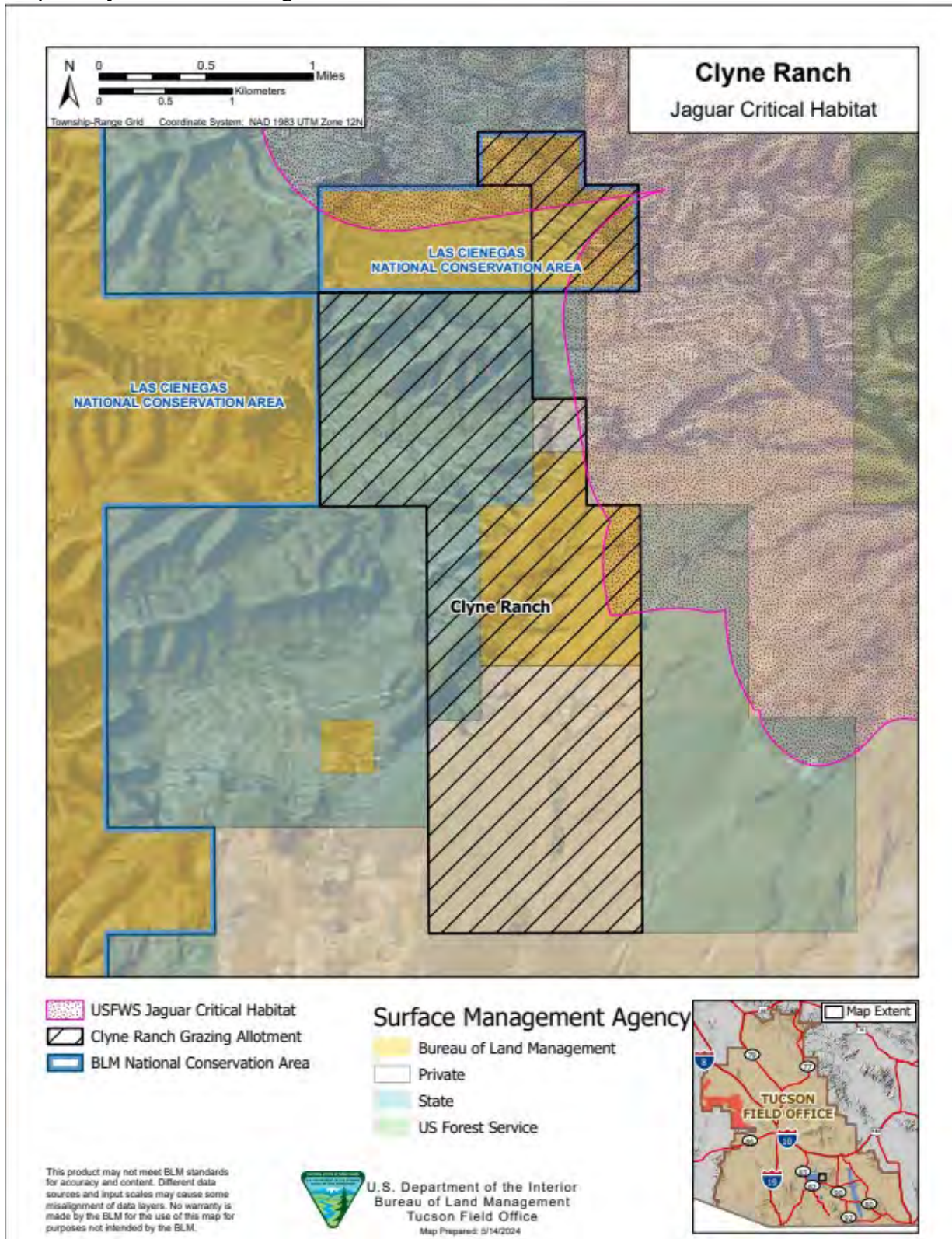
E – Endangered
T – Threatened
C – Candidate
EXPN – Experimental Population, Non-Essential

Reference: <http://www.fws.gov/southwest/es/arizona/>

Jaguar (*Panthera onca*):

All allotments south of Interstate 10 have been recognized as potential jaguar habitat. It is then a goal of the BLM to maintain movement corridors through allotments by sustaining vegetation within washes and reducing impacts to oak woodland and riparian vegetation. Impacts to jaguars were considered in the October 2002 Las Cienegas Grazing Biological Opinion (#2-21-02-F-162) and again in the February 2024 Gila District Grazing Re-initiation of Consultation Biological Opinion (02-21-00-F-0029). These consultations resulted in a concurrence from the U.S. Fish and Wildlife Service that impacts from grazing may affect but are not likely to adversely affect jaguar or their designated critical habitat. Recent wildlife monitoring by Sky Island Alliance and then later verified by Arizona Game and Fish Department (AZFD) has revealed a single jaguar ranging through the Whetstone, Huachuca, and Santa Rita Mountains, thus may be periodically in the vicinity of the allotments on LCNCA. However, the lands contained within the allotment are marginally suitable and are likely only used as connectivity habitat, movement corridors if occupied at all.

Map of Clyne Ranch and Jaguar Critical Habitat



FISHERY RESOURCES – CLYNE POND

Currently there are no fish in Clyne Pond. In 2015-2016 Gila topminnow were introduced to Clyne Pond by the Arizona Game and Fish Department (AZGF) and Gila Chub were introduced in 2016-2017 also by AZGF. Neither of these fish species currently occupy the pond due to the pond drying in 2021. In 2014, Huachuca Water Umbel was planted at the pond and did not persist.

SPECIAL MANAGEMENT AREAS

The following special areas or designations occur within the allotment:

	Name	Date Established	Yes	No
Wild & Scenic Rivers				X
Wilderness				X
Unique Waters				X
ACECs	Empire-Cienega ACEC	2003	X	
Other	Las Cienegas NCA	2000	X	

The Las Cienegas National Conservation Area (LCNCA) and the Sonoita Valley Acquisition Planning District were designated by Congress and signed into law by the President on December 6, 2000, in order to conserve, protect, and enhance the unique and nationally important aquatic, wildlife, vegetative, archaeological, paleontological, scientific, cave, cultural, historical, recreational, educational, scenic, rangeland and riparian resources and values of the public lands within the NCA, while allowing livestock grazing and recreation to continue in appropriate areas.

RECREATION RESOURCES:

There are no developed recreation sites on the allotment. Wilderness inventory was conducted between 1978 and 1980. No lands were found to contain wilderness character. Recreation use is very minimal from the public, only including some bird hunting.

VISUAL RESOURCES

Visual Resource Management (VRM) Classes I _____ II _____ III X IV _____

VRM Class III includes areas where changes in basic elements caused by management activities may be evident in the characteristic landscape. The changes, however, should remain

subordinate to the existing landscape character.

CULTURAL RESOURCES

Issuance of the permit/lease constitutes a Federal Undertaking under Section 106 of the National Historic Preservation Act (NHPA). The Area of Potential Effect (APE) has been determined to be the public lands within the grazing allotment.

In compliance with the BLM Cultural Resources Programmatic Agreement, the Arizona BLM-SHPO Protocol, the 1980 Programmatic Memorandum of Agreement between the BLM, Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Livestock Grazing and Range Improvement Program, and the BLM 8100 Manual series, the following actions have been taken to identify cultural resources located in the APE, evaluate the eligibility of cultural resources for listing in the National Register of Historic Places (NRHP), determine the effect of the undertaking on eligible cultural resources, and design mitigation measures or alternatives where appropriate.

The State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation, and Indian tribes having historical ties to Arizona public lands were consulted during the preparations of the Upper Gila/San Simon Grazing Environmental Impact Statement (9/86) and the Safford Resource Management Plan (9/78). Indian tribes were consulted at the beginning of the permit/lease renewal process. There were no areas of Native American concern, Traditional Cultural Properties (TCP), or Sacred Sites identified during consultations.

Allotment case files, AMP files, range project files, Water Source Inventory files, and Cultural Resource files were reviewed to determine areas of livestock congregation and whether these areas have been previously inventoried for cultural resources. The records indicate that there is one area of livestock congregation that required an intensive field inventory, which was completed on 1-17-2002. Because no historic properties were identified in areas of livestock congregation, no mitigation is recommended as a BLM responsibility or as a term or condition of the permit/lease, to protect cultural values identified above.

As required by the Native American Graves Protection and Repatriation Act regulations at 43 CFR 10.4(g), the following should be added to the grazing lease/permit as a term and condition:

If in connection with allotment operations under this authorization, any human remains, funerary objects, sacred objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the lessee shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The lessee shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.

* Properties refer to archaeological sites, Traditional Cultural Properties, and Sacred Sites.

RIPARIAN

There are no riparian or wetland areas within the Clyne Ranch allotment.

PERTINENT OBJECTIVES AND DECISIONS:

LUP/RMP OBJECTIVES:

Las Cienegas Resource Management Plan (2003)

As outlined in the section “General Livestock Management Strategies” of the Las Cienegas Resource Management Plan and Record of Decision dated July 2003, (page 55), the Clyne Ranch will also follow the following management strategies:

1. Continue flexible livestock rotation under selective rest-rotation strategy. Within the forage allocation (permitted use), authorized use will be varied annually based on an assessment of range conditions, including forage availability and biological monitoring. Forage temporarily available above the forage allocation may be apportioned on a non-renewable basis. Changes in permitted use will be based on inventory and monitoring data.
2. Utilization will be limited to 30-40% of current year’s growth on key perennial grasses to ensure progress towards meeting land health standards and multiple use objectives.

A land use plan conformance review and appropriate level of NEPA will be completed prior to offering a 10-year lease.

MONITORING STUDY RESULTS:

Frequency describes the abundance and distribution of species and is useful to detect changes in a plant community over time, thus frequency is a common measurement used in assessment of land health standards. Frequency is not used in isolation however, where percent foliar cover (absolute and relative) and composition by weight also aid in evaluating the abundance of vegetation present and its trends over time. A species found most frequently within a given area may not always be indicative of its relative biomass/production in the same given area. Thus, a combination of frequency, foliar cover, and dry-weight composition when available provide a more complete understanding of the ground cover conditions and vegetative community.

Table 1: Key Area 1 within the Clyne Ranch allotment ground cover values for 2008-2023 based on 100 points taken along pace-frequency transect.

Cover Type	% Cover 2008	% Cover 2013	% Cover 2014	% Cover 2015	% Cover 2016	% Cover 2023
Bare Ground	7	7	16	11	7	9
Gravel	28	28	20	18	20	19
Litter	9	43	33	33	50	42
Rock	22	14	19	24	12	18
Live Basal Vegetation	34	8	13	14	11	13

Table 2: Key Area 1 within the Clyne Ranch allotment frequency of species in 2023 present on 100 40x40 cm quadrats along pace-frequency transect.

Species – scientific name	% Frequency
<i>Hilaria belangeri</i> (curly Mesquite)	100
<i>Bouteloua chondrosioides</i> (spruce top grama)	27
<i>Evolvulus arizonicus</i> (Arizona blue- eyes)	24
<i>Eragrostis lehmanniana</i> (Lehmann’s lovegrass)	46
<i>Calliandra eriophylla</i> (fairy duster)	41
<i>Bahia absinthifolia</i> (hairy-seed bahia)	7
<i>Solanum eleagnifolium</i> (silverleaf nightshade)	3
<i>Mimosa aculeaticarpa</i> (catclaw mimosa)	2
<i>Sida abutifolia</i> (spreading fanpetals)	2

Table 3: Assessment, Inventory and Monitoring (AIM) Plot CR-1 absolute and relative plant cover for 2023.

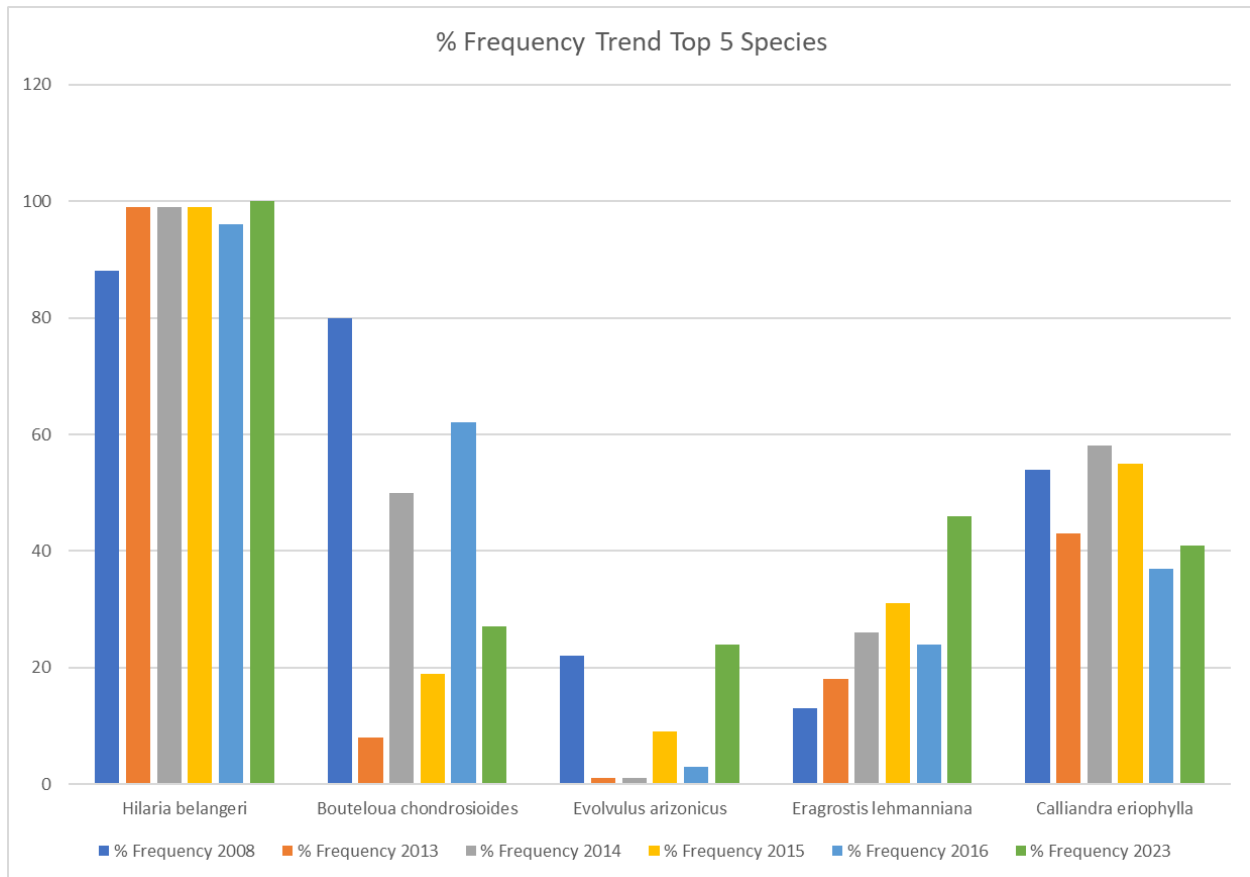
Species	Absolute %Cover	Relative %Cover
<i>Bothriochloa barbinodis</i> (cane beardgrass)	0.66	0.69
<i>Bouteloua chondrosioides</i> (sprucetop grama)	1.333	1.39
<i>Bouteloua hirsuta</i> (hairy grama)	0.66	0.69
<i>Calliandra eriophylla</i> (fairyduster)	7.33	7.64
<i>Eragrostis lehmanniana</i> (Lehmann's lovegrass)	79.33	82.64
<i>Evolvulus arizonicus</i> (Arizona blue-eyes)	0.666	0.69
<i>Hilaria belangeri</i> (curly mesquite)	2	2.08
<i>Sida abutifolia</i> (spreading fanpetals)	2	2.08
<i>Vachellia constricta</i> (whitethorn acacia)	2	2.08

Table 4: Assessment, Inventory and Monitoring (AIM) Plot CR-2 absolute and relative plant cover.

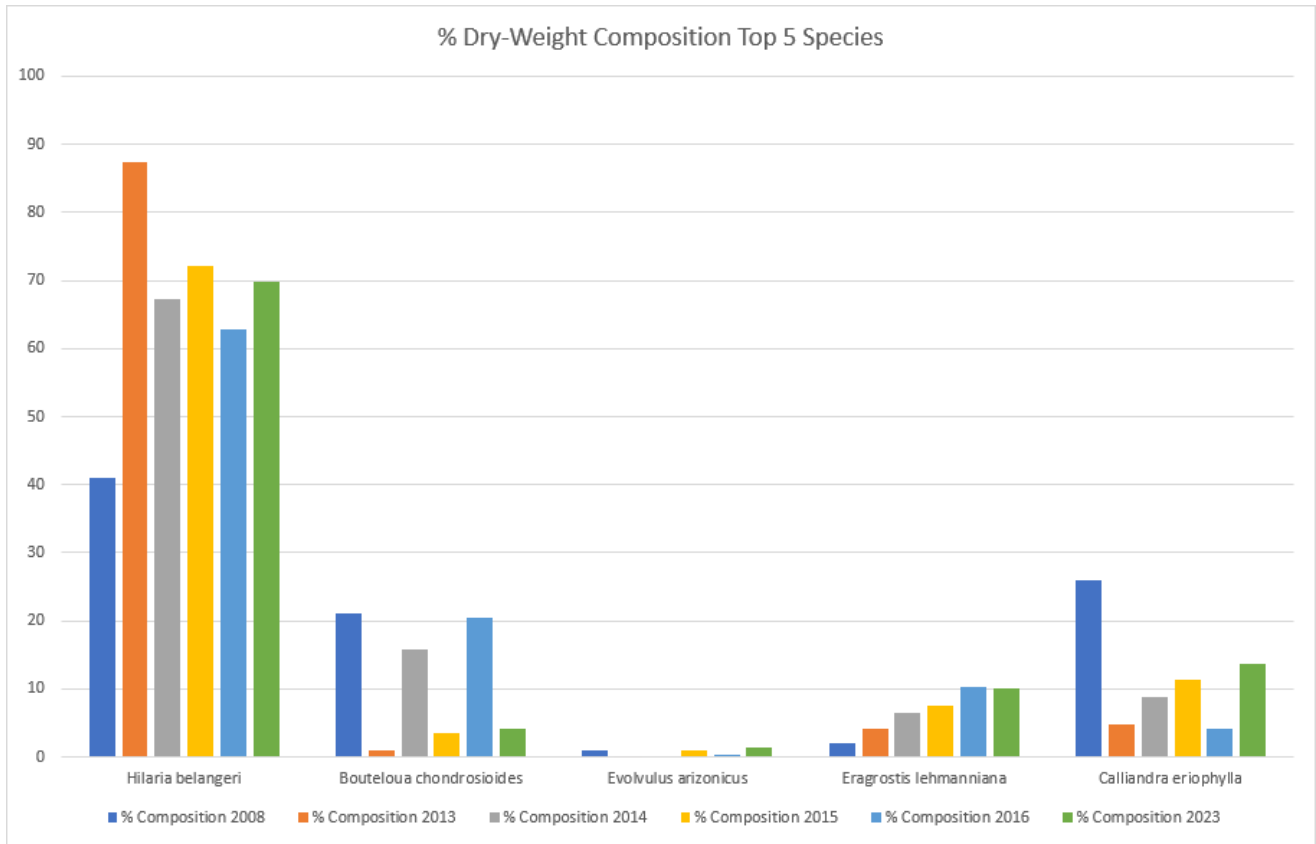
Species	Absolute %Cover	Relative %Cover
<i>Aloysia wrightii</i> (Wright's beebush)	4	4.80
<i>Bahia absinthifolia</i> (hairyseed bahia)	0.666	0.80
<i>Bouteloua curtipendula</i> (sideoats grama)	0.666	0.80
<i>Calliandra eriophylla</i> (fairyduster)	0.66	0.80
<i>Dasylirion wheeleri</i> (desert spoon)	3.999	4.80
<i>Eragrostis lehmanniana</i> (Lehmann's lovegrass)	41.99	50.40
<i>Heliomeris longifolia</i> (longleaf false goldeneye)	0.66	0.80
<i>Hilaria belangeri</i> (curly mesquite)	0.666	0.80
<i>Mortonia scabrella</i> (Rio Grande saddlebush)	5.999	7.20
<i>Mimosa aculeaticarpa</i> (catclaw mimosa)	0.666	0.80
Unknown Perennial Forb	0.66	0.80
<i>Pleuraphis mutica</i> (tobosagrass)	13.99	16.80
<i>Prosopis velutina</i> (velvet mesquite)	1.33	1.60
<i>Rhus microphylla</i> (littleleaf sumac)	0.66	0.80
<i>Vachellia constricta</i> (whitethorn acacia)	3.33	4.00
<i>Yucca baccata</i> (banana yucca)	3.333	4.00

Table 5: Assessment, Inventory and Monitoring (AIM) Plot CR-4 absolute and relative plant cover.

Species	Absolute %Cover	Relative %Cover
<i>Aristida ternipes</i> (spidergrass)	0.666	1.10
<i>Calliandra eriophylla</i> (fairy duster)	1.33	2.20
<i>Chamaecrista nictitans</i> (Partridge-pea)	0.66	1.10
<i>Eragrostis lehmanniana</i> (Lehmann's lovegrass)	40.66	67.03
<i>Evolvulus arizonicus</i> (Arizona blue-eyes)	0.666	1.10
<i>Hilaria belangeri</i> (curly mesquite)	10	16.48
<i>Juniperus monosperma</i> (one-seed juniper)	0.66	1.10
<i>Mimosa aculeaticarpa</i> (catclaw mimosa)	4	6.59
Unknown Perennial Forb	0.66	1.10
<i>Prosopis velutina</i> (velvet mesquite)	1.33	2.20



Species	Common Name
<i>Hilaria belangeri</i>	curly mesquite
<i>Bouteloua chondrosioides</i>	spruce top grama
<i>Evolvulus arizonicus</i>	Arizona blue-eyes
<i>Eragrostis lehmanniana</i>	Lehmann's lovegrass
<i>Calliandra eriophylla</i>	fairy duster



LAND HEALTH EVALUATION RESULTS:

The Clyne Ranch Rangeland Health Allotment Evaluation was completed October of 2023. Previous allotment evaluations were completed in June of 2010 and April of 2013. In accordance with Bureau policy and regulations, any applicable monitoring data was examined and evaluated in order to determine progress in meeting Arizona Standards for Rangeland Health and other land use plan objectives. In addition, the Clyne Ranch Allotment was reviewed to determine if any new information, issues or concerns have been identified.

Method	Date	Yes	No
Land Health Evaluation	October 2023	X	
Pace Frequency	October 2023	X	
Dry Weight Rank	October 2023	X	
Point Cover	October 2023	X	
Line Intercept	October 2023	X	
Photos	October 2023	X	

Indicators of Rangeland Health

A rangeland health assessment provides information on the function of ecological processes (water cycle, energy flow, and nutrient cycle) relative to the reference state for the ecological site or other functionally similar unit for that land area. This assessment provides information that is not available with other methods of evaluation. It gives an indication of the status of the three attributes chosen to represent the health of the “evaluation area” (i.e., the area where the evaluation of the rangeland health attributes occurs). The three attributes are:

1. Soil/Site Stability (S)
2. Hydrologic (H)
3. Biotic Integrity (B)

The following are the 17 indicators of rangeland health that are evaluated during an assessment and the attribute(s) they measure:

1. Rills: S, H
2. Water Flow Patterns: S, H
3. Pedestals and/or Terracettes: S, H
4. Bare Ground: S, H
5. Gullies: S, H
6. Wind-scoured, Blowout, and/or Depositional Areas: S
7. Litter Movement: S
8. Soil Surface Resistance to Erosion: S, H, B
9. Soil Surface Loss or Degradation: S, H, B
10. Plant Community Composition and Distribution Relative to Infiltration and Runoff: H
11. Compaction Layer: S, H, B

12. Functional/Structural Groups: B
13. Plant Mortality/Decadence: B
14. Litter Amount: H, B
15. Annual Production: B
16. Invasive Plants: B
17. Reproductive Capability of Perennial Plants: B

The three attributes of rangeland health (soil/site stability, hydrologic function, and biotic integrity) are evaluated and assigned rating categories for each of the 17 attributes (Technical Reference 1734-6).

Attribute ratings reflect the degree of departure from expected levels for each indicator per the Reference Sheet. The degree of departure may be categorized as:

- Extreme to Total
- Moderate to Extreme
- Moderate
- Slight to Moderate
- None to Slight

Methods for the upland health assessments are described in “Interpreting Indicators of Rangeland Health, Technical Reference 1734-6, Version 5, August 2020”.

The Rangeland Health Evaluation was completed at three sites on the Clyne Ranch Allotment in October 2023. All three evaluation sites were on Loamy Upland, 12-16 inch annual precipitation (R041XC313AZ) ecological sites. The ecological site represents the majority of the allotment. This assessment method involves observing a set of physical and biological attributes at each site to determine Upland health. These observed attributes are placed in one of five categories depending on their degree of presence or absence on the site (i.e. None to Slight, Slight to Moderate, Moderate, Moderate to Extreme, and Extreme). These attributes include items such as: plant pedestalling, flow patterns, soil and litter movement by wind or water, presence of rills or active gullies. A final upland health determination is made by summing all the attributes. Refer to the following table for a summary of the assessment.

Summary results from 2023 Rangeland Health Evaluation: Site #1, Assessment, Inventory and Monitoring Plot CR-1 (numbers are the total of the 17 indicators for a given attribute).

Rangeland Health Attribute	Departure From Ecological Site Description				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil/Site Stability				1	9
Hydrologic Function				2	8
Biotic Integrity		1		3	5

Site #1 - Photo taken on October 27, 2023



Summary results from 2023 Rangeland Health Evaluation: Site #2, Assessment, Inventory and Monitoring Plot CR-2 (numbers are the total of the 17 indicators for a given attribute).

Rangeland Health Attribute	Departure From Ecological Site Description				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil/Site Stability				3	7
Hydrologic Function				4	6
Biotic Integrity		1		4	4

Site #2 - Photo taken on October 30, 2023



Summary results from 2023 Rangeland Health Evaluation: Site #3, Assessment, Inventory and Monitoring Plot CR-4 (numbers are the total of the 17 indicators for a given attribute).

Rangeland Health Attribute	Departure From Ecological Site Description				
	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil/Site Stability				4	6
Hydrologic Function				3	7
Biotic Integrity		1		4	4

Site #3 - Photo taken on October 27, 2023



Site #3, CR-4 Soil Pit Photo



CONCLUSIONS

AZ STANDARDS AND GUIDELINES:

STANDARD 1: Upland Sites - An Upland (Rangeland) Health Assessment was conducted by an interdisciplinary team on October 27 and 30, 2023. Upland soils exhibit infiltration, permeability, and erosion rates typical for this soil type, climate and landform. Soil stability and hydrologic functions meet expectations when compared to reference area conditions. There are no concerns regarding soils that should be considered before lease issuance. The biotic integrity function is-moderately impaired due to presence and cover of the invasive, non-native Lehmann's lovegrass. However, relatively high frequency and diversity of native perennial grass species are present on site. There is sufficient ground cover and diversity to maintain habitat and watershed values on the Public Lands on this allotment. Therefore, Standard 1 is being met for this allotment.

STANDARD 2: Riparian – There are no riparian areas on the allotment. Therefore, Standard 2 is not assessed.

STANDARD 3: Desired Resource Condition – The Upland (Rangeland) Health Assessment indicates the soil and site stability, hydrologic, and biotic integrity functions are meeting expectations for the site. Present diversity and condition of the plant community is adequate to sustain the wildlife species that occur in the area.

Desired Resource Condition –Present diversity and condition of the plant community is adequate to sustain the wildlife species that occur in the area. Range and watershed trend appears to be stable with little change expected in the future. Lehmann's lovegrass is the dominant perennial grass on the allotment and is the primary cause for departure from historic climax plant community within the biotic integrity attribute rating. While it is a concern, due to the widespread presence of Lehmann's lovegrass across southeastern Arizona grasslands and the lack of feasible large-scale treatment options, the BLM is not actively managing the species.

RECOMMENDATIONS:

Based on existing information there are no resource concerns that could be impacted by current livestock use that should be considered before lease issuance. Therefore, the 10-year grazing lease may be issued with the following terms and conditions:

1. If in connection with allotment operations under this authorization, any human remains, funerary objects, sacred objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the lessee shall stop operations in the immediate area of the

discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The lessee shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.

2. A use limit of 30-40% of current year's average annual production is in effect, to be measured on key forage species at permanent vegetation transects. The use limit will ensure the physiological needs of the plants and multiple use objectives are being met. (CFR 43 4130.3-2).

Standard
Terms and Conditions Attachment

1. Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
2. They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations.
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
 - c. A transfer of grazing preference by the permittee/lessee to another party.
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described.
 - e. Repeated willful unauthorized grazing use.
 - f. Loss of qualifications to hold a permit or lease.
3. They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans **MUST** be incorporated in permits or leases when completed.
4. Those holding permits or leases **MUST** own or control and be responsible for the management of livestock authorized to graze.
5. The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
6. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
7. Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
8. Livestock grazing use that is different from that authorized by a permit or lease **MUST** be applied for prior to the grazing period and **MUST** be filed with and approved by the authorized officer before grazing use can be made.
9. Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.

10. Grazing fee payments are due on the date specified on the billing notice and MUST be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) will be assessed.

11. No Member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of the Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App.1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise there from; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

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