Re: Ft. Huachuca

XVII

Arizona Game and Fish Commission

ARIZONA STATE BUILDING

Phoenix, Arizona

July 22, 1948

Governor Dan E. Garvey
Capitol Building
Phoenix, Arizona

Dear Governor Garvey:

Enclosed please find a special report by the Arizona Game and Fish Commission on Ft. Huachuca. This report has been formulated under Public Law 537 recently passed by the 80th Congress authorizing the transfer of surplus lands primarily valuable for wildlife use to the State Game and Fish Commissions. This transfer may be completed at the 100% discount figure to the State.

You will, no doubt, wish to read over this report to acquaint yourself with the plans of the Arizona Game and Fish Commission for the utilization of this area in the event it is turned over to us for administration.

Very truly yours,

Thomas L. Kimball

THOMAS L. KIMBALL, Director
Arizona Game and Fish Commission

TLK:VA
Encl.

ARIZONA GAME AND FISH COMMISSION
FEDERAL AID DIVISION

- Special Report -
PROPOSAL FOR THE ACQUISITION AND UTILIZATION
OF FT. HUACHUCA MILITARY RESERVATION FOR WILDLIFE BY
THE ARIZONA GAME AND FISH COMMISSION

Project 15-C
July 17, 1948

Wm. L. Gambrell

STATEMENT OF AUTHORITY

The Arizona Game and Fish Commission is the official agency of the State of Arizona charged with the responsibility of administering the wildlife resources of the state, and is authorized, with the consent of the Governor to acquire, in the name of the State, by purchase, lease, or gift, lands for wildlife use.

Ample funds are available to the Commission for proper administration of the area.

PROPOSAL

The following proposal for the acquisition of, and plan of use for the Fort Huachuca Military Reservation is submitted by the Arizona Game and Fish Commission, predicated on the newly enacted public law 537-80th Congress which provides for the transfer of surplus real property to the States for wildlife use.

Previous negotiations and informal application, by the Game Department for the acquisition of Fort Huachuca have proposed various acreages and cooperative use. One in particular was a division of the originally withdrawn military land between the University of Arizona and the Game Department with the latter receiving some 24,000 acres.

The present application proposes that the entire 44,760 acres of the original withdrawal be transferred to the state under the authority provided by public law 537. Application is also made for any portions of the unimproved range lands included in the more recently acquired field artillery range which may be adjudged of primary value for wildlife use.

The extensive permanent improvements located on the old fort area are not conceived to be of value to wildlife and the disposition of the old fort area to any other agency would be entirely compatible with the devotion of the undeveloped rangelands to wildlife use.

With reference to the previously mentioned proposed cooperative use of the area by the Game Department and the University of Arizona, it is contemplated that the Game Department, in the event of the acquisition of the area under this application, will invite and request the cooperative participation of the University in all activities previously proposed with the single exception of using the grasslands for the grazing of domestic livestock.

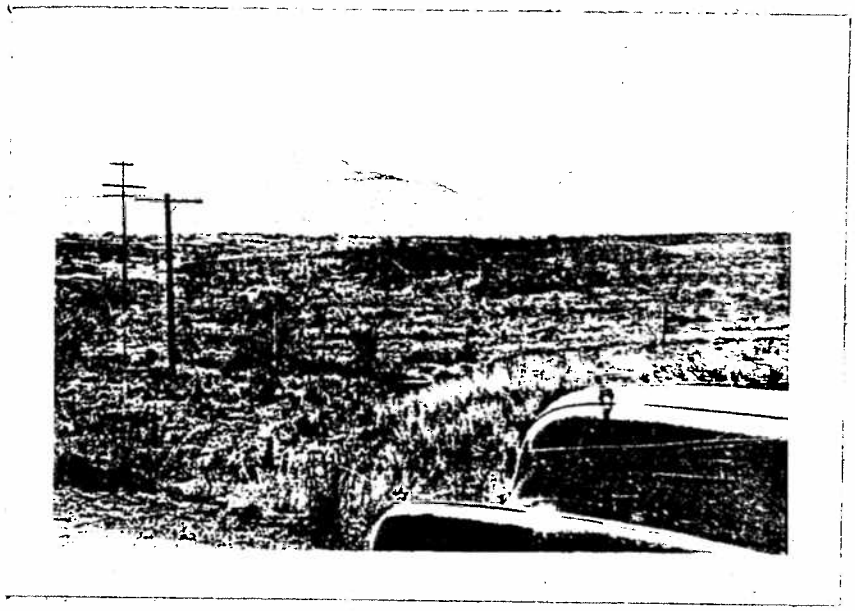

Figure 1
Fort Huachuca, Arizona 12/4/47

Showing heavy sod cover of native grasses in wash bottom.

Fort Huachuca, Arizona 12/4/47

Same wash as in Figure 1 on the opposite side of the road. Notice absence of vegetation, except clipped giant Sacaton. When photograph was taken this area had between 3 and 4 years' rest from grazing.

plants shows a forage producing potential so greatly in excess of the adjacent ranges (Figures 1 & 2) that the deleterious effects of overuse is shockingly emphasized and obvious to even the most casual observer. Both the composition and the density of vegetative growth stand as a living object lesson to range students and users and provide the only known example of what such rangelands looked like before being subjected to the destructive pressure of too heavy use. (Figure 3)

Fort Huachuca, Arizona 12/4/47

Typical stand of native grasses on low plains below the mountain foothills.

Figure 3

SUITABILITY FOR WILDLIFE USE

The old Fort Huachuca Reservation of 44,700 acres is eminently suited to use as a wildlife production and management area by reason both of its location and nature. These same features make it ideally suitable for the purpose of wildlife and range studies and recreation.

The location is fortunate in respect to (1) its accessibility by excellent roads while being remote from larger population centers; (2) its extreme southerly latitude, which accounts for the presence thereon of a floral and fauna composition almost unique in the United States; and (3) the relatively high rainfall and moderate temperatures which provide ideal growing conditions for both vegetative and animal life.

The nature of the land is unexcelled in the southwestern United States for wildlife use.

The average annual rainfall of 17 inches, coupled with the mild temperatures and excellent soil common to the region result in probably the highest production of natural vegetation in the Southwest arid region. Wildlife is produced and can maintain its numbers in direct proportion to the production of beneficial vegetation upon which it is entirely dependant for food and protective cover. With the vegetative production on this area very close to optimal for the southwestern desert country, habitat conditions for wildlife of many varieties approach the ideal.

Elevational differences, ranging from 4,000 feet to 8,406 feet provide variable rainfall, temperatures and vegetative composition with accompanying environmental differences which create ideal habitat conditions for an unusual variety of birds and animals.

The comparatively light grazing use made of the area by livestock in past years has permitted the growth and maintenance of the plants which are best adapted by nature to local conditions. These plants, in a large measure, are the most beneficial for wild animal and bird use occurring in the region, and may, under intensive management, be expected to support optimal game populations with maximum annual production for harvesting by public hunting.

Perhaps the best indicator of outstanding suitability for wildlife purposes is the presence today upon the area, in the face of heavy human populations, of both white tail and Desert Mule Deer, in abundance, Gambel quail, scaled quail and Mearns quail, Mourning doves, Band-Tailed pigeons and white winged doves. These game species have been able to survive on the 44,760 acre area in spite of its occupancy by some 50,000 to 75,000 people during the war years.

Water supplies are ample and susceptible of development and distribution for complete and balanced use by wildlife.

Harvesting and Recreation

Accessibility of the location by excellent paved roads assures maximum use by the hunting and wilderness seeking public, while its remoteness from the nearest center of heavy population (Tucson 120 miles) will minimize the disturbance frequently occasioned on such areas when they are heavily used by the casual and disinterested visitors who are too often guilty of careless vandalism.

Recreational use by the nature-loving public could be expected the year round, in view of the mild climatic conditions prevailing and variety of interests. The annual average temperature is recorded as 61°, with annual average maximum and minimums of 74.9° and 48°.

Wildlife and Range Studies

The location is unique in its value for wildlife research and range studies. Because of the nearly natural condition of its vegetation, here

is the only place known in the Southwest where effective studies can be made of wildlife utilization of desert ranges in such condition. Forage plant preferences and utilization, as well as the carrying capacities of the several types of ranges when in undisturbed natural conditions can be determined. Animal condition and reproductive potential can be evaluated in direct comparison with that on immediately adjacent terrain where heavy grazing pressure by domestic animals has changed vegetative conditions to a marked degree. Wild animal tolerances to such disturbances can be studies by observation of habits and habitat preferences as well as productivity over both ranges.

Range studies can be planned on this lone remaining area, which closely approximates virgin conditions, that cannot be duplicated elsewhere. Investigations and analyses of vegetative composition and density under such conditions might alone prove of inestimable value in pointing the way toward more efficient range use planning. One easily conceivable and profoundly significant result could be the proving that livestock and game production might be increased, even doubled, on Western ranges, by the restoration of ranges to their highest productivity, and the implementation of a sustained yield basis of livestock grazing. The original forage producing ability of western ranges has been so drastically reduced by destructive use that few people, even among range users, are aware of the fact that the average range of today might well produce double or more the present poundage in beef, year in and year out, with a sufficient forage reserve to insure economic security, if such ranges were restored to their original condition and past abuses discontinued. It appears certain that sufficiently conclusive proof of some such postulate would evolve from properly directed studies, and that the modification of presently destructive grazing practices should be greatly accelarated. No greater need can be found in the West than for positive information which can bring about the conservation and proper utilization of watersheds and range lands.

From a technical view point also, the unique vegetative condition offers a study field alone in its class. Studies of range conditions, plant classification and ecological relationships, and of plant succession under variable controlled utilization would augment existing knowledge and provide needed facts for range use planning. Utilization studies including both domestic and wild animals could provide sorely and universally needed information on the increasingly controversial question of competition between the two for forage. The questionable claim that wildlife alone has exerted destructive pressure on natural vegetation in many recorded instances could be readily clarified.

In view of the urgent need for a solution to the common and major problem of all the Western States of wildlife-livestock competition, the devotion of the Fort Huachuca reservation to wildlife use for studies of this and allied range and watershed problems alone would be eminently justified. The land is of little value for any other purpose except grazing by domestic livestock, a procedure which, judging by precedent and contemporary operations, would reduce the quality and quantity of its vegetative covering to that of the surrounding terrain in a few short years.

Conservationists Opinions

The unanimous opinions of Nature and Wildlife students and managers were aptly expressed in an address by a nationally known industrialist and orinthologist, Mr. Herbert Brandt, of the Bird Research Foundation of Ohio who, through extensive travel and study has qualified himself to speak with authority--and who, in the Douglas Dispatch of December 12, 1945, was quoted by George Richard as saying, in part--

> "After 35 extended expeditions into the various parts of our continent, I now feel bold enough to say that there is no place that I have found which equals the captivating wilderness of Apacheland. This region not only has an exceptional wealth of land birds but it is abundantly gifted with remarkable fauna of mammals and reptiles, while the flora is fascinating. In its primitive days this grand domain must have been indeed, a storehouse of natural charms unequaled elsewhere.
>
> The destruction and change that has taken place in Arizona due to the pressure of overgrazing and other factors brought about by the hand of man, is most discouraging, and only now is a slight change for the better taking place. Of all the areas that we visited, the Fort Huachuca reservation was the only place that had a semblance of what that lovely country must have been when Coronado came down the valley of the San Pedro river.
>
> The desert is on the march in your lovely state, and the only way it can be halted is by everybody uniting in the cause of conservation and relieve the destructive pressure on the land. A natural landscape once destroyed does not come back readily. This requires the long process of plant succession and growth of deep roots in order to convert the land to its previous primitive aspect.
>
> By carefully nursing and perpetuating the old military reservation, your posterity would have before it a lesson in conservation that no book or other medium could equal. Not only are its grasslands and forests prosperous but there is a host of rare birds and animals which find a congenial habitat in that unspoiled wilderness.
>
> It seems almost unbelieveable that the people of Arizona--(might turn)--this reservation over the destruction of private exploit, which would mean so little to so few, whereas if it were perpetuated, it would mean so much for so many."

No higher use can be conceived for this area than wildlife and range studies, wildlife production and harvesting, and public recreation.

FACILITIES NEEDED

Existing facilities on the property which would be needed by the department to properly administer the area are few. Existing boundary and range division fences, mountain and range water developments, existing roads and one or two residential buildings for housing of caretakers would suffice for all activities contemplated except the operation of a state Game Farm. For this activity two or three warehouse buildings would be needed for warehousing, incubating and brooder space. These buildings might advantageously be located in the vicinity of the site selected for the proposed location of the Arizona State Industrial School, in view of the suggested use of school personnel for training in actual operation of Game Farm activities. Residence buildings might well be located away from the old permanent post area and situated for best visibility over the greatest expanse of terrain.

The extensive improvements of permanent and temporary buildings, water distribution and sewage disposal systems, power plants and transmission lines are neither needed nor desired.

The disposition of these highly developed areas to other agencies should in no way interfere with efficient use of the undeveloped lands for wildlife.

The needs of wildlife are simple, and can frequently be best met by simply letting the land alone. In the present instance the fencing of the area against trespass and the distribution of available water to the best advantage together with protection from natural predators and illegal hunting would suffice for natural production.

Water resources and distribution should be intensively surveyed and mapped in the event that the reservoirs and pipe lines needed for wildlife must be stipulated, as should the buildings desired.

PLAN OF USE

The utilization plan proposed for the area, by the Arizona Game and Fish Commission, briefly summarized is to preserve for all time the unsurpassed natural resources and beauty of the region, together with its historical values, while devoting the area to the greatest possible public good for the combined and compatible uses of (1) watershed preservation, (2) the production and orderly harvesting of game birds and animals, (3) investigation, education and demonstration in both wildlife and range management, and (4) public recreation activities in the wilderness environment which will be maintained. Maximum, sustained yield production for use by all of the public will be the keynote of the program.

The restoration of all recorded wildlife species known to have inhabited the region will be effected and the introduction of a small herd of American Bison is contemplated. Primary objectives in wildlife management will be the preservation and maximum possible production of indigenous game birds and

animals, consistent with the maintenance of optimal watershed and range conditions, for enjoyment by the public both through observation and study and through controlled harvesting of surpluses.

(1) Watershed Preservation

The subject area constitutes a substantial part of the watershed of the upper San Pedro river. A considerable part of its runoff water enters the river above the U.S. Bureau of Reclamation's proposed site location, for the flood and silt controlling Charleston Dam. Full consideration will be given to the retention of adequate vegetative cover for maximum water yield and the prevention of abnormal erosion. Watershed management studies by all interested agencies will be invited. Specific interest has been expressed by the U.S. Forest Service South west Forest and Range Exp. station, one of whose headquarters is located at the nearby Santa Rita Range Experiment Station.

(2) Wildlife Management

Bison

It is proposed to introduce and establish a herd of Bison on a portion of the grasslands of the range in response to the insistent request of many years standing of residents of the southern part of the state. The size of this herd will be determined after careful consideration of public need bananced against the forage producing capacity of the portion of the range devoted to such use. Range conditions will be accorded primary consideration. The surpluses which will eventually occur will be removed by public hunting under adequate control.

While the so called Buffalo was not indigenous to this locality it is believed that environmental conditions are excellent for the animal. Its absence from this range in historical times might conceivably be attributed to the great expanse of unsuitable country separating this small area from the historical range of the animal.

In view of the nearly ideal conditions obtaining, (in the light of present knowledge of the species) it is anticipated that a high degree of both animal condition and productivity may be effected. Interesting and potentially valuable studies of food habit preferences and forage utilization by these animals will be enabled, and, by their grazing, the often over-emphasized danger of range fires in grasslands can be controlled to whatever extent may be advisable.

Deer

Deer of two species are present on the area with the small Arizona white tail occupying the more mountainous portion and the larger Desert Mule inhabiting the foothills and plains. Population numbers of both varieties will be increased, under the management program to the maximum consistent with vegetative production capacity after salt and water distribution has been effected to provide for optimal distribution, and the animal crop thereafter harvested by public hunting.

Antelope

The beautiful and interesting American Antelope, the only member of his family in North America, was formerly present on the plains around the Huachuca Mountains. The vulnerability of this plains loving animal to modern long range rifles, however, resulted in his ruthless extirpation many years ago.

The restoration of this colorful, herd-loving species will add greatly to the interest as well as to the productivity of the project. No more beautiful sight can be imagined than a herd of these tawny and white, pronghorned and fleetfooted speedsters roaming the lush grasslands of the lower elevations, and no animal offers more attraction and excitement to those who enjoy hunting.

Here again, animal production will be secondary only to conservative range utilization, and continuous observation and studies will record food preferences, forage use, and effect upon range resources.

Surplus antelope numbers, when such develop, will be used to restock other southern historical ranges where the animal no longer occurs, and later will be harvested by public hunting.

Wild Turkey

The Merriam wild turkey was reported as abundant in the mountains by the early settlers of the district.

The restoration of these splendid birds is contemplated, and successful results are rather well assured by the excellent results obtained from previous similar activities in other and nearby Southern mountain ranges. With complete protection from illegal hunting, and the control of natural enemies it is possible that public hunting might be permitted with in from five to ten years. The overflow of turkeys, once firmly established, could be expected to provide the restoration of the bird to all of the surrounding mountainous areas of sufficient elevation within a short time.

Masked Bobwhite

The masked bob-white quail, also called Ridgeways quail, was formerly native to southern Arizona where grasslands were lush. It's historical range extended north from the Mexican border almost to Tucson, and eastward probably as far as the Huachuca Mountains. This ground-roosting bird, because of its dependence upon the heavy ground cover which has long since disappeared from practically all of its range, was extirpated many years ago. Attempts by the U. S. Forest Service and the State Game Department to restore it failed in 1937, presumably because of the lack of heavy grass and weed cover. Range condition on Fort Huachuca should provide ample cover as well as feed, and enable the restoration of this beautiful and interesting bird, the only game bird known to have been completely exterminated from the state.

Game Farm

Ideal olimatic conditions and facilities exist on the property for the establishment of a State Game farm. Ample water is available for all purposes connected with Game Farm operation. Buildings are standing which could be readily adapted to use for store houses, incubator and brooder houses, and excellent ground in abundance is available for the construction of bird and animal rearing pens.

Both native and exotic birds could be raised to advantage, as could animals; for the purpose of restocking areas where populations are absent or dangerously low, and for attempting the introduction of new game birds throughout the State, as may be desired.

Other Game Species

Excellent environmental conditions exist on the range for small game birds and animals. Management efforts for these will probably consist of protection from human disturbance and predatory animals and permitting population numbers to increase to the optimal before harvesting. Gambel and scaled quail, Mearns Quail (Fool quail), and rabbits should become abundant within a very few years.

Non-Game Species

A multitude of non-game birds and animals are present in the area. The coppery-tailed trogon and the thick-billed parrot are two notable examples, several of which do not occur elsewhere in the nation. Students of bird and animal life from all over the nation have repeatedly visited the Huachuca Mountain area because of its interesting flora and fauna, and their unanimous opinion of the uniqueness and scientific value of the area for nature study purposes argue strongly for its preservation and use for wildlife, study and public recreation.

Fisheries production

Ample water is available for the development of fish production to provide much pleasure and profit to residents of Southern Arizona and other visitors to the area. By the judicious use of this water, sufficient small lakes could be created to provide a considerable amount of warm water sport fishing. Small impoundments in the higher elevations could be stocked with trout. A comprehensive survey of the location of water sources in relation to areas susceptible of reservoir or lake development would be made to determine which type of fisheries production could most efficiently utilize the water available.

Waterfowl Resting Grounds

In proportion to the amount of water available excellent waterfowl winter resting and feeding grounds could be provided to fill a nationally recognized and urgent need. Such development would necessarily be small in size, but might well be of justifiable significance in view of the almost total absence of such areas in the southwestern desert region.

Repeated instances of both wild ducks and geese using not only the reservoirs existing on the property, but even the swimming pools, for resting purposes on their annual migrations indicate the need that even small areas would fill.

(3) Research and Education

Wildlife studies will be instituted as suggested above in connection with the game birds and animals involved. Invitations to cooperate in these studies and to initiate separate investigations along allied lines will be accorded all schools, public agencies, and individuals who are concerned with this work, either in Arizona or elsewhere in the nation.

Range and vegetative studies will be planned for systematic execution in cooperation with the University of Arizona, the Southwest Forest and Range experiment station and the Soil Conservation Service.

The area will be open to all qualified organizations and individuals for field party studies in an outdoor laboratory of unsurpassed qualifications. The educational advantages and demonstration possibilities of the unit will be utilized to the greatest possible extent compatible with efficient wildlife management.

(4) Recreation

Plans for recreational use will be formulated on a basis of maximum public service consistent with the preservation of a wilderness environment.

Present conception visualizes the establishment of two or three picnic and camping sites at selected locations which are easily accessible at present.

Heavy vehicular travel throughout the area will be discouraged and the bulk of the property will be maintained in the most primitive possible state. Travel into the mountainous portions especially will probably be permitted only on foot or by horse.

Existing roads and trails are believed to be ample, and the prospects of enjoying the sight of game birds and animals on the plains and in the foothills sufficient to guarantee adequate enjoyment to those visitors who may not be able or willing to make the more strenuous trip into the mountains.

Local community planning and cooperation in the development of recreational facilities will be invited.

Specific objectives

Some proposed specific activities in connection with the wildlife management program outlined above are listed herewith.

Establish a caretaker headquarters for efficient administration of the area.
Establish game ranger headquarters on the property for adequate patrol and law enforcement both on the area and in the vicinity.

Prepare detailed cover type and life zone map with a special attention to existing and optimal water distribution.
Estimate optimal carrying capacities of the range for wildlife species present and desired.
Inventory game birds and animals.
Compare present inventories with carrying capacities and prepare specific plans for the establishment of maximum population.
Establish non-use areas for vegetative preservation and production with permanent line transects for systematic studies of plant composition, condition, vegetative classification studies, and succession trends.
Develop recreational facilities possibly in cooperation with local city and county authorities with primary emphasis on the maintenance of the wilderness aspects and environment. Invite and promote field party studies and investigations by and with research and educational agencies.
Provide a rest camp for the nation in an environment of unsurpassed natural beauty and all year climate.

Benefits and Economic Values

The relative economic values to derive from the devotion of the proposed area to wildlife use are impracticable of positive evaluation. The intangible asthetic values of wilderness recreational areas cannot be translated into dollars and cents. The character-building, soul satisfying and nervous energy restoring power of intimate and simple exposure to and contact with nature, with mountain and plain, with woodland, streams and lakes, undeveloped and unspoiled by exploitation cannot be definitely measured in terms with our common bank account.

The preservation of existing precious topsoil by minimizing erosion with the attendant preclusion of need for expensive construction of silt control structures in stream beds cannot be computed by any known yardstick.

The number of pounds of meat of game birds and animals, the number of hides or pelts for fur and the number of fish which could be taken for food purposes could be approximately figured and, reduced to monetary value, would certainly equal if not exceed the value of beef which could be produced on the area on a sustained yield basis.

The twenty-five million odd people in the nation who enjoy hunting and fishing were estimated as the result of one survey, to have expended in excess of 4 billion dollars in 1946 in the pursuit of their outdoor pleasure. One authority has submitted that the income in the state of Arizona from tourists and recreation seekers alone amounted to approximately 100 million dollars annually. Such figures are impressive and significant but cannot lead to a definite dollars and cents valuation of the public good to derive from the proposed recreation area at Fort Huachuca.

Another estimate that the average hunting and fishing recreationist spends approximately $125 a year in pursuit of happiness close to nature, indicates that only 1000 people annually enjoying such pleasures on the Huachuca area would account for $125,000 additional business annually. All such figures however, are sufficiently intangible to provide little

more than a headache to the precise statistician.

There is no question however, that to cities and towns in the vicinity of Fort Huachuca the revenue from expenditures by travelers to this area would be significant and sustained. The local community economy is based largely upon the mining industry and livestock grazing. With the inevitable depletion of mineral supplies this industry will one day cease. And with the continuing destruction of range productivity which has prevailed to date the contribution of the range livestock industry in the community may be expected to grow more feeble year by year. When these eventualities have materialized the presence of an attractive and heavily used recreational area such as the one proposed would assume greater importance with each passing year.

The research and the demonstration phase of proposed activities on the area are again impossible of advanced computation. The application of the findings of just one single phase of investigation however, could conceivably double the production of range cattle in the state. If, under a properly planned and executed demonstration, the range carrying capacity of these pristine grasslands could be conclusively shown to be double that of the immediately adjacent over used ranges, the eventual result would unquestionably be the restoration of range land forage productivity on all of our range lands, not only in Arizona, but throughout the West, to its maximum, by the range users themselves, and the subsequent use of the land on a sustained yield basis of maximum production. The economic value of this possibility can be evaluated. In 1926 some 800,000 range cattle were reported on the ranges of the state with a monetary value estimated at approximately 65 million dollars. With a doubled range carrying capacity a theoretical 1,600,000 animals using the range year in and year out, with an annual harvestable surplus of only 25%, would provide 400,000 beef cattle annually, worth over $32,000,000 every year at the 1946 evaluation figure of $81.30. Project this annual increase in the productive potential of the state of Arizona alone into future years and the resulting figure will represent one phase of the potential economic benefit to the state and the nation of the devotion of Fort Huachuca to wildlife use.

Submitted by:

Wm. L. Gambrell
Federal Aid Division