Salt Lake Field Office
2370 South 2300 West
Salt Lake City, UT. 84119

ENVIRONMENTAL ASSESSMENT

EA Number: UT-020-2002-0100

Project Name: Adjustment of Appropriate Management Levels and Herd Management Area Boundaries for the Cedar Mountain and Onaqui Mountain Herd Management Areas.

Land Use Plan: Pony Express Resource Management Plan, 1988.

County: Tooele

Applicant: Bureau of Land Management, Salt Lake Field Office

Address: 2370 South 2300 West Salt Lake City, UT. 84119

Date: August 28, 2002

LANDS DESCRIPTION

T1-8S, R7-11W, In the area known as Skull Valley, Cedar Mountains, and Onaqui Mountains.

ENVIRONMENTAL COMPLIANCE: The proposed action has been reviewed and all environmental issues have been considered.

Reviewed by: Alice Stephenson 2-19-03 Cons. Spec.

Signature Title Date

FINDING OF NO SIGNIFICANT IMPACTS
AND
DECISION RECORD
UT 020-2002-0100

FINDING OF NO SIGNIFICANT IMPACTS: Based upon an analysis of the environmental impacts contained in Environmental Assessment UT 020-2002-0100, I have determined that the impacts to the human environment are not expected to be significant and an environmental impact statement is not required for the reasons stated below under Rationale.

DECISION:

It is my decision to implement the proposed action without alteration, as presented in the environmental assessment. This decision establishes the Appropriate Management Levels (AMLs) and the corresponding Herd Management Areas (HMAs) and Herd Areas (HAs) for the Cedar Mountain and Onaqui Mountain herds.

The Cedar Mountains HMA AML is set at 237 animals within the proposed range of 190 to 390 horses. Likewise, the Onaqui Mountain HMA AML is set at 159 animals within the proposed range of 121 to 210 horses. Figure 2 illustrates the HMA and HA boundaries for both herds.

RATIONALE:

The alternatives presented in the environmental assessment were carefully prepared and analyzed and were based upon the best available information provided during the issue identification process. The adjustment of the AMLs and their corresponding HMA/HA boundaries is consistent with the provisions provided in the Wild Horse and Burro Act[PL 92-195, 1971, Section 3-(b)2(D)], Federal Land Management and Policy Act (PL 94-579, 1976), Public Rangelands Improvement Act [PL 95-514, 1978 Section 14(b)(1)], and the Bureau of Land Management Planning Handbook [H-1601-1, 2000, Section IV-2].

Glenn A. Carpenter
Field Office Manager

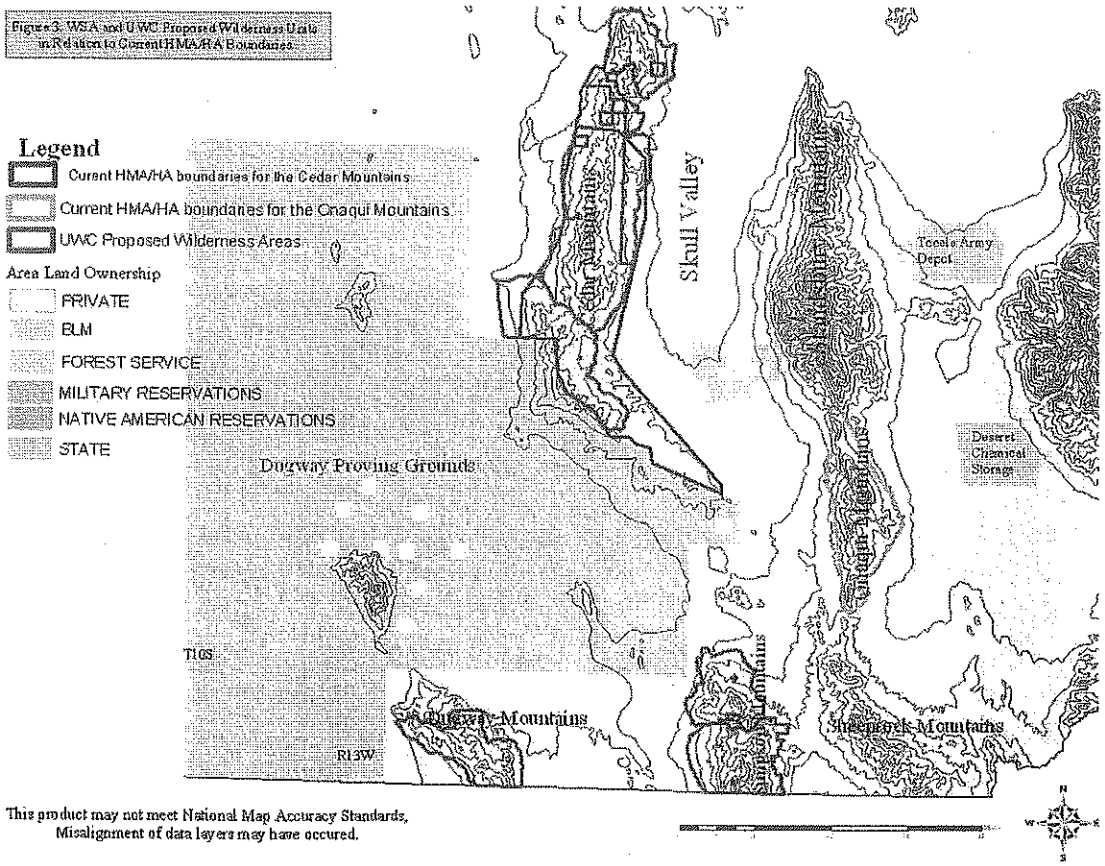
2/19/03
Date

Errata for EA UT-020-2002-0100; Wild Horse and Burro AML and Boundaries EA

Due to clerical errors, there were some discrepancies contained in this document. The following are corrections to those clerical errors:

1. Paragraph 2 of the Decision of the DOR. The number of animals for which AML is set for the Cedar Mountains should read 273 animals in place of the 237 animals as it currently reads.

2. Figure 3: WSA and UWC Proposed Wilderness Units in Relation to Current HMA/HA Boundaries; A corrected version of the map is incorporated in this document



NEPA CHECKLIST

NEPA TITLE Wild Horse AML + Bondoney EA NEPA NUMBER UT-020-2002-0100

AUTHOR Kyle Hansen / Pam Schuller

RMP/MFP NAME _____ RMP/MFP DECISION:

ACTION:

1. Draft document routed to staff as appropriate:
2. Final document routed to staff as necessary:

RESOURCE	SPECIALIST	DRAFT INIT/DATE	REVIEW FINAL	FINAL INIT/DATE
Plan Conformance	Stephenson/Nelson	AS 1/15		AS 1/16/03
Lands / Access Prime/Unique Farm Lands*	Nelson/Jensen	GJ 12/19/02		GJ 12/19/02
Geology / Minerals	Ford/Martinez	CM 12/19/02		CM 12/19/02
Cultural*	Naylor Hunsaker Ainsworth	HA 1/15/03		HA
Nat. Amer. Concerns*		HA 1/15/03		HA
VRM	Laub/Nelson/Swanson	MW 12/19		MW 12/19/02
Recreation / OHV	Laub/Swanson/M.Rigby	MW 12/19		MW 12/19/02
WSA*/ 202 / UWC	M.Rigby/Laub	MR 12/19		MR 12/19
HazMat*	Ingwell	ID 12/19		12/19/02
Environmental Justice*	Stephenson/Nelson	AS 1/15		AS 1/16/03
ACEC*	(Depends on ACEC)	N/A		N/A
Rangelands Standards / Vegetation / Soil	Kidd/Schuller/ Heaton/Gates	MDG 1/13/03		MDG 1/13/03
Wildlife / T&E* / Neotropical birds	Packer	RP 12/19/02		RP 12/19/02
T&E plants*	Hardy/Dragt	RRH 1/13/03 Need to say more on Veg.		2-7-03 RRH
Watershed / Riparian* / Floodplains*	Schuller/Dragt	PS 1/9/03		PS 1/9/03
Water Air* / Water Quality* / (303(d))	Schuller	PS 1/9/03		PS 1/9/03
Invasive, noxious weed species*	Dragt/Quilter	D 1/13/03	Q 1/13/03	
Wild Horse & Burro	Hansen	[illegible] 1/13/03		1/13/03
Fire	Kline/T.Rigby	JK 1/13/03		JK 1/13/03
Operation - Support	Wieser/Turner	MT 12/19/02		MT 12/19/02

* **CRITICAL ITEMS**, may require negative declaration

4. Environmental Coordinator review final EA, FONSI, Decision Record/Rationale: Signature Alice Stephenson
5. Renewable Resources Mgr. Review: Signature Curtis Warrick
   Non-Renewable Resources Mgr. Review: Signature [illegible]
6. Project stipulations given to workforce/applicant _____

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INTRODUCTION

Background information

With the passage of the Wild Horse and Burro Act of 1971 (WH&B Act), Congress found that: "Wild Horses are living symbols of the pioneer spirit of the West." In addition, the Secretary of the Interior was ordered to "manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving ecological balance on the public lands." The Bureau of Land Management (BLM) identified the areas that the wild horses had used when the WH&B Act (1971) was passed. In determining how to manage the wild horses under its care, the BLM outlined geographic areas that provided habitat for wild horses in 1971. These areas are called Herd Areas (HAs). Areas within the HAs identified in a management framework or resource management plan for the long-term management of wild horses are called Herd Management Areas (HMAs).

From the passage of the Act, through the present day, the BLM Salt Lake Field Office (SLFO) has endeavored to meet the requirements of this Act. The procedures and policies implemented to accomplish this mandate have been constantly evolving over the years. Throughout this period, BLM's experience has grown and knowledge of the effects of current and past management of wild horses has increased. For example, wild horses have demonstrated the capability of annual increases up to 18 to 25%, and wild burros increasing at a slower 11-15% rate. This can result in a doubling of wild horse populations about every three years. At the same time, nationwide awareness and attention has grown. As these factors have come together, the emphasis of the wild horse and burro program has shifted. Program goals have expanded beyond simply establishing "thriving ecological balance" [setting Appropriate Management Levels (AML)] for individual herds, to achieving and maintaining vigorous and stable populations.

The Cedar Mountain and Onaqui Mountains HMAs are currently being managed as individual herds because of known animal migration behavior. Animals seldom if ever move between the two HMAs despite their close proximity. AMLs for the Cedar Mountain and Onaqui Mountain HMAs are currently set at 85 and 45 head respectively according to the Pony Express Resource Management Plan (RMP). Documents containing this information are available for public review at the SLFO.

The Cedar Mountain and Onaqui Mountain HMAs are located in central Tooele County, Utah and are administered by the Salt Lake Field Office BLM. These HMAs are generally located 45 miles west of Salt Lake City, Utah, and south of Interstate 80. The analysis area is located in Tooele County, Utah within the areas around the Cedar Mountain and Onaqui Mountain (Figure 1).

Purpose of and Need for Action

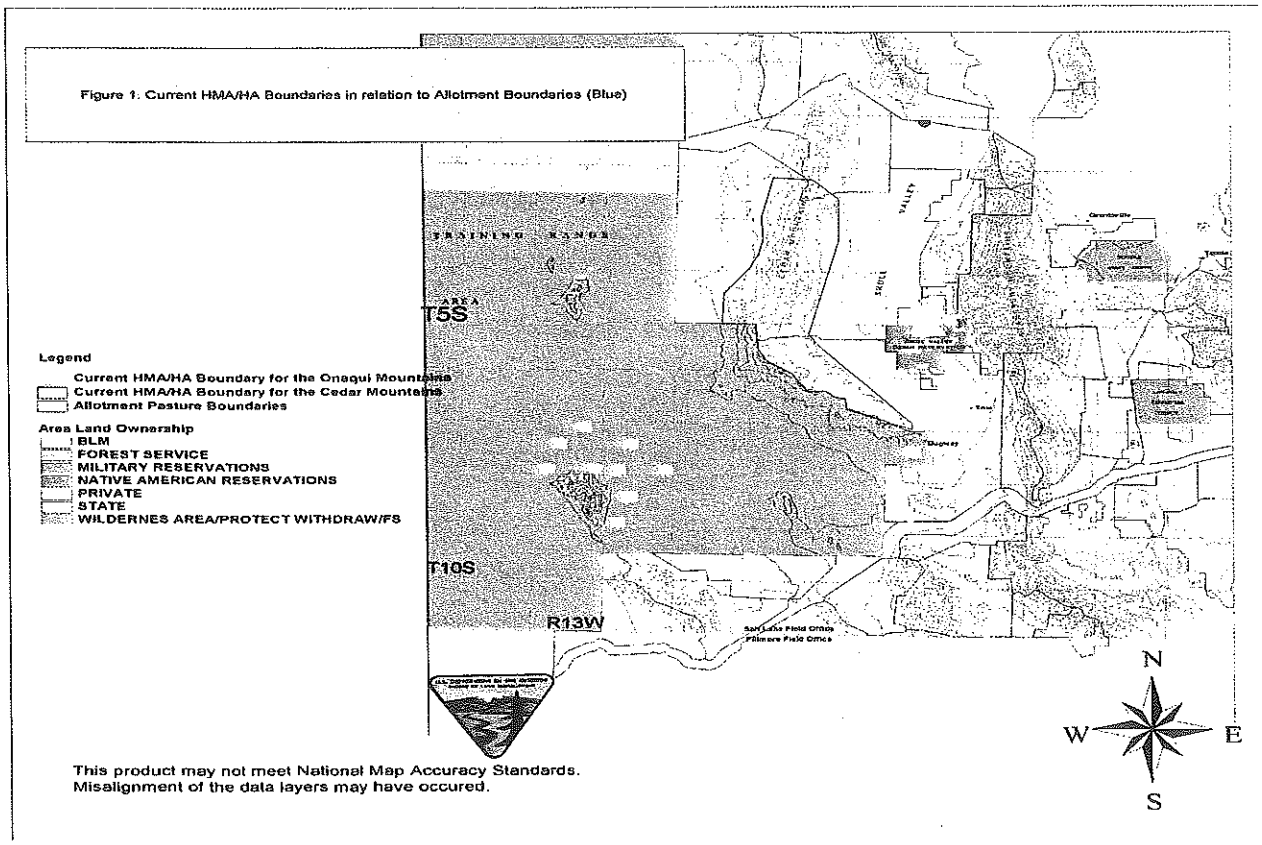
Wild horse populations on the Onaqui Mountain and Cedar Mountain HMAs are approximately 400% of the appropriate management levels (AMLs) set in the Pony Express RMP (PRMP). The AMLs set in the Pony Express RMP were established as an educated guess at the population level the area would sustain under multiple use concepts. Since setting these levels, several factors (including changes livestock use and vegetation type conversions due to fire) have changed. These factors have an effect on the number of wild horses these areas will sustain in a thriving ecological balance. Numbers must be established that conform to administrative law decisions that AML determination be based upon monitoring data. In addition, the AMLs set in the PRMP sets the number of horses allowed below that necessary to maintain sustainable genetic viability without the introduction of genetic sources outside of the HAs. This level has been established as an effective population size of 50 animals (effective population size is defined as the number of breeding males (x) multiplied by the number of breeding females (y) multiplied by 4.

The resulting figure is divided by the number of breeding males and females combined (x*y*4/x+y))[1].

During the 1990's, the majority of horses from the Onaqui HMA were spending a substantial amount of time outside the boundaries of the existing HMA. In evaluating other HMAs in Utah, it was noted that boundaries included natural summer areas at higher elevations and winter use areas at lower elevations. The absence of natural winter range surrounding the Onaqui Mountains and the Cedar mountains (Figure 1.), led to an investigation of the accuracy of the existing boundaries and a comparison with the historical accounts of the ranges of the horses on the Onaqui and Cedar Mountains in 1971 at the time of passage of the WH&B Act. Interviews with past BLM employees and families who lived in the area prior to 1971 indicate that the wild horses did in fact inhabit the winter range areas of lower elevations at the time of passage of the Act. HAs were intended to incorporate the areas used by horses at the time of passage of the WH&B act, including both summer and winter use areas.

Current direction from the national program office is to establish AMLs that are comprised of a range that allows horse numbers to fluctuate based upon a four-year gathering strategy and sound biological data. The current AMLs set forth in the PRMP does not establish such a range.

The analysis of alternatives and implementation of a decision is authorized under the Wild Horse and Burro Act (PL 92-195,1971, Sec 3-(b) 2 (B)), Federal Land Policy Management Act (PL 94-579, 1976), the Public Rangelands Improvement Act (PL 95-514, 1978, Sec 14 (b) (1)), and the Bureau of Land Management Land Use Planning Handbook (H-1601-1, 11/22/2000, IV-2 which states that the establishment of AMLs for wild horses and burros is an implementation decision. According to the Land Use Planning Manual, either the Field Manager or the BLM State Director may make implementation decisions (page IV-3).



1 Information derived from Phone conversations with Dr. Gus Cothran, PhD, Director Equine Parentage Verification and Research Laboratory, Department of Veterinary Science, University of Kentucky

Conformance with Land Use Plans (LUPs)

The Tooele Grazing EIS, September 1983; the Tooele Planning Area Rangeland Program Summary, May 1984; the Pony Express RMP, January 1990; and the Pony Express RMP Ammendment (OHV) 1992 provide direction for the management of these HMAs. The Pony Express RMP established two wild horse herd management areas, the Cedar Mountain and the Onaqui Mountain HMAs, for which forage allocations were established for 85 and 45 animals, respectively. This RMP, which directs management in the project area, approved in 1990, has been reviewed. The proposed action is in conformance with the RMP (43 CFR 1610.5 and BLM MS 1617.3). The proposed Action is in conformance with the following RMP decisions:

- Wild Horse Program Proposed Decision 1 (Page 26) – Manage herd size
- Soil, Water, and Air Program Proposed Decision 1 (Page 23) – Proper soil/water management
- Wildlife and Fisheries Program Proposed Decision 1 (Page 1) – Develop/implement HMPs
- Wildlife and Fisheries Program Proposed Decision 10 (Page 30) – Protect T&E species/habitat
- Range Program Proposed Decision 1 (Page 25) – Establishes Wild Horse AUMs (1560)[2]
- Recreation Program Proposed Decision 2 (Page 31) – Designates OHV use areas[3]
- Visual Resource Management Program Proposed Decision 1 (Page 33) – Sets VRM class
- Cultural Resource Program Proposed Decision 1 (Page 33) – Mandates cultural clearances

Relationship to Statutes, Regulations, Policies, Plans, or Other Analyses

The following laws, regulations, activity plans, and documents also direct the SLFO's management in the analysis area, including the selection of an alternative from this EA:

Tooele Grazing EIS 1983
Stansbury/Onaqui HMP 1990
SLDO Weed EA UT-020-96-24
Federal Land Policy and Management Act 1976
Public Rangeland Improvement Act 1978
Draft Onaqui Mountain HMA Plan 2002
Onaqui Mountain Capture Plan EA-UT-020-94-15
SLFO Fire management Plan EA-UT-020-98-8
SLDO Riparian Strategic Plan (1989)
Executive order 11990 (Protection of Wetlands)
Rangeland Health Assessments (1999)
SLFO OHV Plan Amendment EA-UT-020-90-11
Utah's 2000 303(d) List of Waters (2000)
Cedar Mountain HMA Plan 1993
Wild Horse and Burro Act 1971
Utah Standards for Rangeland Health 1997
Emergency Wild Horse Gather EA UT-020-00-78
The Tooele County Soil Survey (2000)
Executive Order 11988 (Floodplain Management)
State Implementation Plan (Utah Division of Air Quality)
Utah Non-point Source Pollution Management Plan (2000)
Utah Division of Water Quality's 2000 Water Quality Monitoring Program (2000)
Interim Management Policy for Lands under Wilderness Review (H-8550-1)
Utah Guidelines for Recreation Management (2001)
Wilderness Inventory and Study Procedures Handbook H-6310-1
"Final Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshutes Indians and the Related Transportation Facility in Tooele County Utah" (2001)(Hereafter referred to as the PFS EIS)

The Tooele County Plan does not reference Wild Horses or their management. The proposed action is consistent with the Interim Management Policy for lands under wilderness review (IMP)(BLM Manual H-8550-1, Ch. 3 E.) within the SLFO.

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[2] According to the Planning handbook, the initial setting of an estimated number of horses is a planning decision. This decision was made in the Pony Express RMP (1990). Adjustment of the AML based upon monitoring and evaluations is an implementation decision.

3. This decision was later amended through an OHV Plan Amendment (1992) which changed OHV designations for the Pony Express Resource Area (RA) (See Map, OHV in Appendix A).

Critical Elements

Critical elements of the human environment as identified in statute, regulation or executive order have been considered for this environmental assessment. Those elements that may be impacted are discussed within this EA. Elements not affected by this action are identified with rationale for not analyzing them further.

Table 1. Critical Elements Considered

Value	No Effect	May Effect	Rationale
Air Quality	X		The range of alternatives discussed would not contradict or conflict with Utah's Division of Air Quality's State Implementation Plan. Cedar Mountain and Onaqui Mountain HMAs are located within the attainment/maintenance area. Routine compliance checks or gather activities would not cause the transport of dust particles across major highways or otherwise create a visual barrier or hazard to vehicular traffic. National Ambient Air Quality Standards (Clean Air Act of 1970 as amended – 40 CFR Part 50) would not be exceeded/created for CO, NO2, Pb and SO2. Hazardous substances (etc) including asbestos, chromic acid, lead, dry cleaning chemicals, halogenated solvents, VOCs, and green house gases are also not generated by the alternatives. Mobile sources of particulate matter released by wild horse activity/presence at levels described in the proposed action and no action alternatives would not contribute to violation of any maximum allowable increase in annual or 24 hour averages. Refer to the air quality analysis in the Pony Express RMP and the associate amendments.
T&E Species	X		USFWS identified threatened species Bald Eagle, Western Yellow-billed Cuckoo, and Ute Ladies Tresses as species that may be occur within the analysis area. It has been determined that the proposed action will have "No Effect" on these species nor will it jeopardize the continued existence of or result in the destruction of or modification of critical habitat for these species. Appendix B. contains the correspondence record.
Water Quality	X		Water sources within the analysis area are primarily associated with livestock and horse watering facilities (troughs/ponds). Water sources within the analysis area are not on Utah's 303(d) List of Waters (2000). There would be no interference with the designated uses (R317.2: secondary recreation, aquatic wildlife, cold water fish, agriculture). The alternatives would not injure or limit existing in stream water uses within or adjacent to the HMAs or their proposed boundaries. Waste or substances would not be created or deposited. Based upon the soil types (NRCS 2000), the alternatives would not alter turbidity or pH; release metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium or silver); release inorganics (boron, fluoride, nitrates or total dissolved solids); released radiological components (radium, strontium, or tritium); or release herbicides or other pollutants. Numeric criteria for total dissolved gasses, minimum dissolved oxygen, pH, turbidity, and coliforms would not be exceeded or impacted by the alternatives. Utah BLM's rangeland Health Standard #4 would be met by the alternatives. Refer to the water quality analysis in the Pony Express RMP and the associated amendments.
Prime/Unique Farmlands	X		Resource Not Present.
Cultural /Historical		X	Refer to the discussion in the Affected Environment.
ACEC	X		Resource not present.
Wilderness		X	Refer to the discussion in the Affected Environment and Environmental Consequences sections for an analysis of impacts to the Cedar Mountain WSA.
Wild & Scenic Rivers	X		Resource Not Present.

Native American Concerns	X		Nation-to-Nation Correspondence letters were sent to the Skull Valley Goshutes and the Ibapah Goshutes. No concerns were identified or expressed. The Paiutes and Shoshoni have stated that they have no interest in the analysis area.
Waste, Hazardous	X		No Hazardous Waste products will be produced as a result of the proposed action or alternatives.
Environmental Justice	X		Minority concerns would not be unequally affected by the proposed alternative. None of the range of alternatives would unduly influence the ability or rights of any group or section of the human population.
Riparian and Floodplains		X	Refer to the discussion in the Affected Environment.
Noxious Weeds	X		Jointed Goat Grass (invasive plant) occurs at Davis Knoll and at Quincy Spring development. The central Pony Express corridor and adjacent lands in Rush Valley west are infested with the noxious weed – Squarrose Knapweed. This weed is very invasive particularly in areas with high fire occurrence. It tends to spread along disturbed areas such as roads, ATV trails, livestock and wild horse trails and drainage patterns. The seed head is a small burr that tends to cling to animals and clothing for transport to other locations. IT is expected that as horse numbers increase, the potential for the spread of noxious weeds would increase correspondingly. However, as the AML levels of all of the decisions would result in a net decrease from the existing situation, it is expected that there should be no net increase in the invasion rate of noxious weeds, and may result in a decrease in the invasion rate.
Neotropical Birds		X	Adjustment of HMA Boundaries and AML levels will have no immediate effect on neotropical bird species. However, there may be cumulative impacts that will be discussed under the Cumulative Impacts section.

Constituents of the Human Environment that have been considered for this environmental assessment (EA) are listed below in Table 2. Elements that may be affected are further described in this EA. Rationales for those elements that will not be affected are identified.

Table 2.

Other Elements Considered			
Value	No Effect	May Effect	Rationale
Recreation	X		The watersheds within the analysis area are currently receiving dispersed motorized and non-motorized recreation use. Due to the increase in population numbers along the Wasatch Front and the subsequent increase in visitation of the analysis area, Recreation use within the analysis area may contribute to harassment and loss of wild horses. This would occur regardless of the alternative selected. Day use to extended use within various parts of the analysis area occurs throughout the year. Viewing wild horses in conjunction with other activities such as horseback riding, OHV use, and camping occurs frequently. The Pony Express Trail is located south of the southern portion of the Onaqui HMA. Motorized use designations for the Cedar Mountains are closed along the higher elevations and limited to existing roads along the foothills. This has been defined (for the Cedar Mountain WSA) as: those routes that were in existence at the time of the original inventory (for additional information on OHV socio-economics of Salt Lake, Tooele, and Utah Counties and the exact OHV status of a given area, refer to Appendix A). Wild horse groups, animal activists, wilderness advocates and sportsmen are becoming more interested in the management of wild horses within the SLFO's jurisdiction. They are concerned with the management of livestock, wild horses, wilderness and ATV/OHV use in the area.

			Activities of special interest in the Cedar Mountain area are the Ride for Life annual ATV ride fundraiser, that utilizes Lee's Canyon as a component of the ride's course, and sand dune play on the west side of the Cedar Mountains. A natural geological phenomenon in the area is White Rocks. When it rains in the area, the extremely porous stone of the rocks collects the rainwater. When the rocks are full, they "weep" the excess water, causing rivulets on the rock faces. White Rocks is also a popular use area for Boy Scout troops and other organized group recreational activities. This area is a dispersed use area and receives moderate attention, especially during the spring when the "weeping" phenomenon is readily apparent. The Onaqui Mountains also have some areas of interest. Various permitted recreational activities occur within the Onaqui HMA including: camping at the Clover Campground, a site developed by the BLM on the Northeast corner of the HMA, Wilderness therapy treatment programs, and guided hunts. The Clover Campground receives use throughout spring, summer and fall. Access to the Clover Campground is restricted in the winter, limiting winter use. The area is also of interest to Mountain lion hunters who find the terrain of the Onaqui Mountains challenging and have a good success ratio. Limited prospecting occurs as a recreational activity in both the Cedar Mountains and the Onaqui Mountains.
Wildlife		X	Refer to the discussion in Affected Environment
Wild Horses		X	Refer to the discussion in Affected Environment
Livestock Grazing	X		The current grazing permits pertaining to the allotments within the analysis area will not be affected by the selection of any of the alternatives; there would be no changes in grazing permit mandatory or discretionary terms & conditions or assignment of range improvements.
Land/Realty Program	X		All known proposals for land exchange would not be affected by any of the proposed alternatives. Future effects on land exchanges are not anticipated. Because no new roads or structures are anticipated, the range of alternatives should have no effect on the Lands/Realty Program.
Fire	X		Fire occurrence is frequent within the analysis area. Fire has played a major role in the vegetative community present on the allotments. Cheatgrass is present across the allotments. These allotments are in a desert environment and the vegetation types reflect this. Young and Evan (1978) state that livestock grazing may be an important tool for the maintenance of bunch grasses by preventing the accumulation of fire loads. Litter not only increases the intensity of the fire but also the recruitment of cheatgrass. Deflon (1986) noted that dry grass litter on the ground aids cheatgrass germination, while Tausch et al. (1992) report that heavy thatch restricted growth of perennials in California grasslands. There have been no known or documented losses of wild horses within the SLFO.
Vegetation		X	Refer to the discussion in affected Environment
VRM	X		The analysis area occurs within the VRM class II, III, and IV (Onaqui Mountain HMA) and VRM Class III and IV (Cedar Mountain HMN) Categories. Wild horse populations are authorized in all of the above classifications.
Mining/Geology	X		Resource is not affected by proposed action
Water Rights	X		There are various water rights (POU and POD) that occur within the analysis area. There would be no changes in designated uses (e.g. irrigation, stock watering, and domestic) of the water. The nature, extent, and period of use would not change with any of the alternatives selected. The alternatives would not cause permanent or temporary abandonment of any of the various water rights within the analysis area. A search of Utah Division Of Water Rights data base (http://nrwrt1.nr.state, ut.us/wrinfo/query.asp) was made. The water rights data are maintained at the SLFO in the HMA files.
Soils		X	Refer to the discussion in Affected Environment.
Other Wilderness Concerns		X	Refer to the discussion in the Affected Environment and Environmental Consequences sections for an analysis of impacts to the Cedar Mountains and Dugway Mountains WIAs and the North Cedar Mountains, South Cedar Mountains, Indian Peak, and Lion Peak UWC proposed wilderness units.

Issue Identification

Public Involvement was initiated on this proposed action on May 13, 1999. A Notice of Intent for the proposed wild horse AML revisions was published in the Federal Register on this date. This notice was amended on July 23, 1999 to include amendment of the HMA boundaries. A second notice of intent was sent to parties which have identified themselves to the BLM as interested parties on July 29,2002. Appendix B contains copies of these documents. This EA will provide the environmental assessment for management of both the Cedar Mountain HMA and the Onaqui Mountain HMA. The proposed AML and HMA boundary adjustment for both areas will be addressed in one decision.

The aforementioned notice described the proposed action and solicited public input. The critical elements and other constituents of the human environment incorporate most of the publics concerns. The remaining concerns will be addressed under the appropriate sections of this EA. This office received no other comments relative to the proposed action or alternatives.

The following were identified as Topics that would be considered in this EA:

Cultural/Historical	Wilderness Concerns
Riparian Areas	Wildlife
Neotropical Birds	Vegetation
Wild Horses	Soils

Description of Alternatives

The Proposed Action and Alternatives represent a reasonable range of alternatives. Based on Issue Identification, the Critical Elements, and Other Constituents of the Human Environment, six alternatives were considered (Wild Horse Herd Area Elimination, HMA Combination, HMA/HA Expansion While Keeping Current AML Levels, Proposed Action, No Action, and Adjusting of Wild Horse Numbers to Minimum Levels).

Alternatives Considered but Rejected

Wild Horse Elimination Alternative

This alternative would only be viable if the management of wild horses were not possible in these two areas. As this is not the case, this alternative would directly contravene the intent and letter of the WH&B Act of 1971, which states "... they (wild horses) are considered in the area where presently found as an integral part of the natural system of the public lands" and are to be "protected and managed as components of the public lands" and will not be considered further.

HMA Combination Alternative

Under this alternative both HMAs would be combined into one HMA. If both populations regularly exchanged members, this might be a viable alternative, however, the presence of Dugway Proving Grounds military base and the large volume of traffic entering in through the convergence of State Highway 199 and the Rowley-Dugway Road provide an effective barrier to the regular exchange of members between these two areas. The occasional horse does move between them,

generally a lone stud, however this infrequent act is not enough to ensure genetic stability in the small population that would stay on the Onaqui Mountain portion of the combined HMA. This would not lead to maintaining a viable population in a thriving ecological balance under multiple use concepts. This would violate the mandate given by congress to "manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands." Consequently this alternative will not be discussed further.

Expansion of HMAs/HAs While Keeping Current AML Alternative

Under this alternative, winter areas would be added to the HMAs. The HAs would be expanded to correspond to the areas described by members of the public and former BLM employees who resided and worked in the area at the time of passage of the WH&B Act (1971). Horse numbers would remain as they currently are in the RMP. As stated above, the number of horses in the Onaqui HMA is already too low for long-term genetic stability. This would not fulfill the requirements for maintaining the wild horse population in a thriving ecological balance with the rest of the community due to the low genetic pool that would result on the Onaqui Mountains. Because of these facts, this alternative will not be considered further.

Alternatives Considered

Proposed Action Alternative

AMLs and HMAs/HAs would be set as presented in Table 3 and Figure 2 respectively. The management plans for the two HMAs would be updated to reflect this alternative. The AML for the Cedar Mountain HMA would be set at 273 animals. Horses would be gathered when numbers exceed 390 animals and gathered to a low number of approximately 190 animals. Likewise, the AML for the Onaqui Mountain HMA would be 159 animals. Horses would be gathered when their numbers exceed a high of 210 animals and be reduced to a low of 121 animals.

In the event of forage shortages due to drought, fire, or other environmental incident, emergency horse gathers may be necessary to maintain a thriving cultural ecological balance. Conditions would be monitored to determine the proper course of action in accordance with the Wild Horse Habitat and Environment Condition Contingency Plan (Appendix E) created June 27th, 2002.

In the Cedar Mountain WSA, facilities associated with wild horse gathering and general horse management such as temporary fencing or watering points for gathering horses would be analyzed at the time of proposal in an appropriate environmental analysis document and in conformance with the IMP. A proposal for a facility in either of the WIAs would be analyzed in an appropriate environmental analysis document. At this time it is anticipated that there would be no gather facilities placed within the boundaries of any of the WSAs or WIAs. The selection of this alternative would not prohibit or inhibit the introduction of horses from other HMAs to introduce new genetic material.

This is the SLFO preferred alternative.

Table 3. Proposed Action (Revise AML and HMA Boundaries)

HMA	Min. / AML / Max	Season of Use	AUMs	HA Acres	HMA Acres
Cedar Mountain.	190 / 273 / 390	Year Long	3276	386,155	189,402
Onaqui Mountain.	121 /159 / 210	Year Long	1908	446,391	205,394

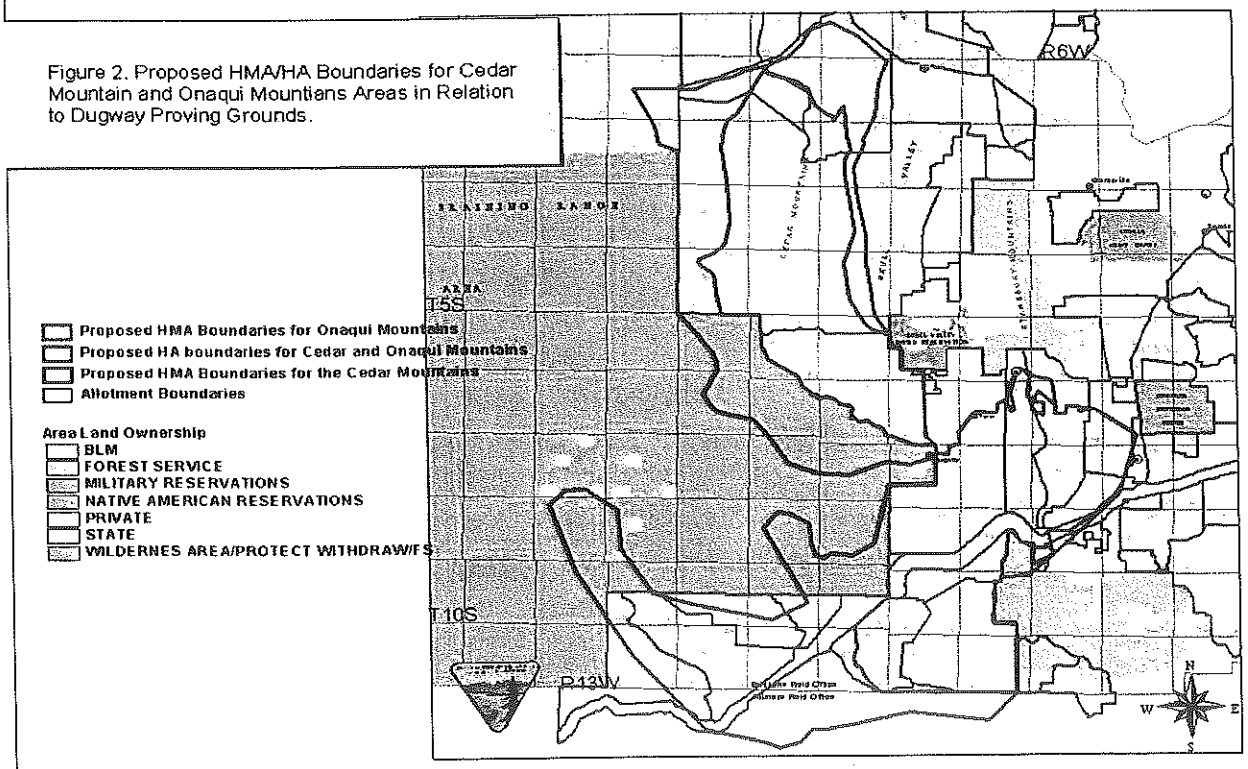


Figure 2. Proposed HMA/HA Boundaries for Cedar Mountain and Onaqui Mountians Areas in Relation to Dugway Proving Grounds.

This product may not meet National Map Accuracy Standards.
Misalignment of the data layers may have occured.

No Action Alternative

AMLs and HMAs/HAs would be set as represented in Table 4 and Figure 1, respectively. The HMA management plans would remain as written to reflect this alternative. The Cedar Mountain AML would be set at 85 animals. Likewise, the Onaqui Mountain AML would be set at 45 animals. Horses would be gathered when their numbers exceed those set for the respective HMAs. The selection of this alternative would not prohibit or inhibit the introduction of horses from other HMAs to introduce new genetic material.

This is the Status Quo Alternative.

Table 4. No Action

HMA	AML	Season of Use	AUMs	HA Acres	HMA Acres
Cedar Mountain.	85	Year Long	1020	182,724	182,724
Onaqui Mountain.	45	Year Long	540	43,880	43,880

Minimum Level Alternative

AMLs and HMAs/HAs would be set as described in Table 5 and Figure 2 respectively. The HMA management plans would be updated to reflect this alternative. The Cedar Mountain AML would be set at 94 animals. Horses would be gathered when their numbers exceed 135 leaving 65 head within the HMA boundary. These numbers are established using an observed male to female composition of 1 stud for every 4 females, the formula established by Dr. Cothran (Page 3), and an observed reproductive success rate of approximately 20%. Likewise, the Onaqui Mountain AML

would be set at 89 animals. Horses would be gathered when their numbers exceed 118 leaving 67 head within the HMA Boundary. These numbers are established using an observed male to female composition of 1 stud for every 4 females, the formula established by Dr. Cothran (Page 3), and an observed reproductive success rate of approximately 15%. The selection of this alternative would not prohibit or inhibit the introduction of horses from other HMAs to introduce new genetic material.

Table 5. Minimum Level

HMA	Min. / AML / Max.	Season of Use	AUMs	HA Acres	HMA Acres
Cedar Mountain.	65/94 /135	Year Long	864	386,155	189,402
Onaqui Mountain.	67/ 89/118	Year Long	804	446,391	205394

AFFECTED ENVIRONMENT

Cultural/Historical Resources

Maintaining AML and HMA/HA Boundaries is not considered a surface disturbing activity and requires only a Class I Record Search of cultural/historical resources. Only a portion of the analysis area has been inventoried for cultural/historical resources. Class III Cultural Resource Surveys completed within the analysis area are primarily associated with wildfire rehabilitation or livestock improvements such as rangeland reseedings or water developments. Class III Surveys were completed on wild horse trap locations in 2000 and 2002. This information has been coordinated with the State Historic Preservation Officer (SHPO) and the data are maintained at the SLFO under protective disclosure. Those inventories document the presence of limited amounts of cultural resources. The presentation of cultural resources information in this EA is in compliance with the current SHPO Memorandum of Agreement and therefore is in compliance with the law.

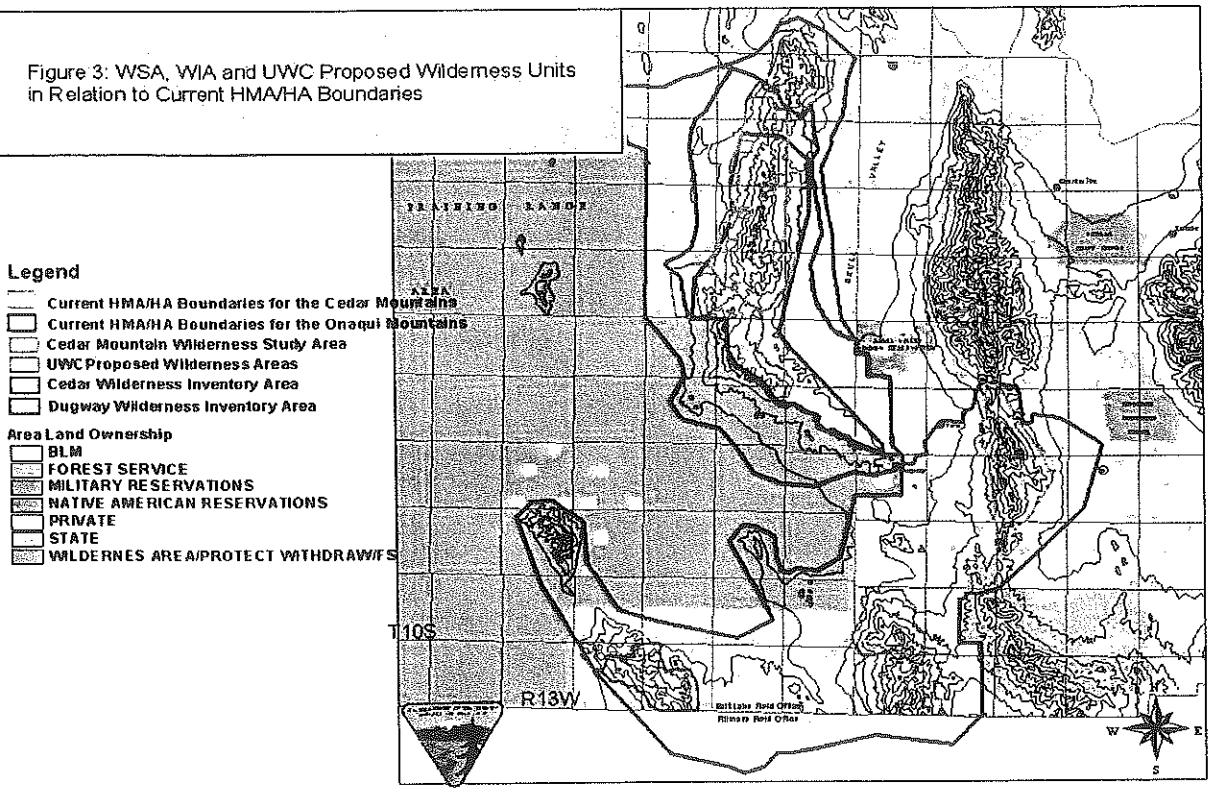
Wilderness

Most of the Cedar Mountains Wilderness Study Area (WSA), which totals 50,500 acres, is found within the current Cedar Mountains HMA/HA (see Figure 3). The Cedar Mountains WSA contains the following wilderness characteristics: 1) size, has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; 2) naturalness, generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; 3) has outstanding opportunities for solitude and a primitive and unconfined type of recreation; and 4) contains supplemental wild horse values. WSAs are managed according to the IMP (*Interim Management Policy for Lands Under Wilderness Review*, BLM Manual Handbook H-8550-1) to protect their wilderness values until Congress either designates the WSA as wilderness or releases it to other uses. The IMP allows for adjustments in wild horse AMLs as determined by monitoring activities. When the Cedar Mountains WSA was designated in 1980, wild and free roaming horses were identified as a supplemental value and wild horses are presently using several springs within the WSA.

Most of the Cedar Mountains Wilderness Inventory Area (WIA), which totals 15,540 acres, is found within the current Cedar Mountains HMA/HA (see Figure 3). The northern part of the Dugway Mountains WIA is included in the proposed Onaqui Mountain HA. These lands were found to meet the wilderness characteristics criteria during the *1999 Utah Wilderness Inventory*. WIAs are managed according to existing land use plans. Proposed land uses are evaluated through the NEPA process to determine their effects on the wilderness characteristics of the WIA. If an action is proposed that would degrade the wilderness character of a WIA, the BLM must consider in a NEPA document an alternative of mitigating or relocating the action to avoid or minimize the impacts of the action on wilderness values. The BLM must also consider the alternative of postponing the action until the wilderness values of the WIA can be addressed through a land use plan. If the NEPA analysis shows the action would not disqualify the area from further consideration as a WSA, the BLM may approve the action. If the analysis shows the action would disqualify the area from further consideration as a WSA, the BLM should postpone the action until wilderness values can be addressed in a land use plan

Wilderness proposal areas are portions of externally generated wilderness proposals that do not include WSAs or WIAs. The majority of one Utah Wilderness Coalition (UWC) wilderness proposal area is within the current Cedar Mountains HMA. Two UWC wilderness proposal areas are not within the current Cedar Mountains and Onaqui Mountain HMAs (see Figure 3), but are within the HMA/HA boundaries of the proposed action. The Salt Lake Field Office, BLM did not receive any new information from external groups regarding these wilderness proposal areas, so they will not be addressed further in this environmental analysis.

Figure 3: WSA, WIA and UWC Proposed Wilderness Units in Relation to Current HMA/HA Boundaries



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Riparian/Wetland and Floodplain

Hell Hole, Henry Spring, Cedar Spring, Skull-Faust, Faust Canyon, Cochran Spring, Tabbys Spring, Quincy Spring, Brown Spring, 8 Mile Spring, Simpson Spring, Redlam Spring and associated riparian areas exist within the analysis area. There may be unknown springs located in the upper elevations of Cedar Mountain/Onaqui Mountain or in isolated areas of the analysis area. Generally, the major spring sources have been developed within the analysis area. Other areas have been fenced and are excluded from wild horse use such as Brown Spring or Cedar Spring. Artificial riparian zones can be associated with the stock watering ponds. Riparian/Wetland Proper Functioning Condition Assessments and corresponding ratings have not been completed for all of these areas. Fieldwork to complete this task is tentatively scheduled for Fiscal Years 2003 and 2004. Based on the system's capability, these areas can be characterized as At-Risk because of altered flow regimes due to spring developments, inadequate vegetation, and streambank stability.

Wild horses within the analysis area have access to riparian areas on a year round basis. Other than the presence of mountain lions or human beings, horses are distributed by their herding behaviors. Of particular concern is the subsequent utilization of riparian vegetation during the hot season periods. Winter foraging draws the horses off of the mountains and into the valley bottom/foothills. Naturally, wild horses seek water at the spring sources or water developments within the analysis area. Their watering behaviors can include digging and lingering at spring sources especially during drought years. This activity reduces the system's ability to function. Brown Spring was redeveloped specifically to repair horse damages to the range improvement and to enlarge the spring box because water table loss. Likewise, evidence of wild horse trailing activity around Cedar Spring Exclosure can contribute to the sediment load or erosive actions on the system.

The SLDO Riparian Strategic Plan (1989) outlines management guidelines for riparian health, disturbance, enhancement, and disposal. Executive Order 11999 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands) also mandate that risks to floodplains and wetlands be reduced, while their natural or beneficial values are restored or enhanced in every management action.

Flood hazards or risks to human safety within the analysis area are inherently low. NRCS (2000) describes the areas as not probable or unlikely for flooding. Constructing facilities or buildings are not part of the alternatives and therefore a discussion specific to human safety or building integrity is not required. Flood prone soils and their distribution are described in the soil survey (NRCS 2000, Pages 264-268). For discussion purposes, floodplains are a relatively flat landform adjacent to a stream that is comprised of primarily unconsolidated depositional material derived from the stream that is subject to periodic flooding. For purposes of this environmental assessment, riparian habitat also includes wetland systems.

Wildlife

The area represents year-round habitat for pronghorn antelope at elevation from 4,250 feet up to approximately 6,000 feet. The Cedar Mountains contain mule deer habitat classified by UDWR as high value yearlong range. The Onaqui Mountains contain the following mule deer habitat classifications: high value yearlong range, high value winter range, critical winter range and high value summer range. Rocky Mountain Elk may also frequent the southern edge and eastern slopes of the Stansbury Mountain range during the year and may occasionally move south to the Onaqui Mountains; however, use is limited and numbers are slight.

Upland game species such as the chuckar partridge occur within portions of the analysis area.

The eastern most portions of the Onaqui Mountain HMA encompass Sage grouse brooding and winter habitat. No existing leks are documented within the analysis area. The health and abundance of sagebrush communities play a vital role in the ultimate success of Sage Grouse populations.

Per consultation with the U.S. Fish and Wildlife Service (Appendix B), it was determined that within the analysis area, the following species may occur: Bald Eagle (*Haliaeetus leucocephalus*), listed as Threatened, may utilize the area as winter range, Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) listed as a Candidate species, and Ute Ladies tresses (*Spiranthes diluvialis*) (an orchid) listed as Threatened.

There are several documented raptor nests within the existing HMA boundaries as well as the proposed boundaries. A few of the nesting species in the area include Ferruginous Hawk, Swainsons Hawk, Red-tailed Hawk, Prairie Falcon, Golden Eagle, and Great-Horned Owl.

Various non-game species including but not limited to kangaroo rats, coyotes, red fox, snakes, lizards, and toads also inhabit the area.

As is consistent throughout desert regions, water is a limiting factor for many wildlife populations. In order to reduce the effects of the limited amount of water, water-collecting developments known as "guzzlers" have been constructed in the analysis area. These guzzlers are not generally available to wild horses, and provide a much-needed source of water to wildlife. These developments however, do not wholly support any or all wildlife populations within the area. Wildlife must still rely upon natural sources of water within the area that are shared by wild horses and livestock.

Wild Horses

Early settlers and the cavalry brought wild horses to the area in the late 1800's. Horses are gregarious, and have few natural predators other than Mountain lions. This combination of factors allows wild horse populations to be very competitive with native wildlife and other living resources.

There have been 15 gathers on the Cedar Mountains and 7 on the Onaqui Mountain since the WH&B Act was passed. Most recent was an emergency gather (DNA UT-020-02-0117) in 2002, whereby 302 animals were removed and placed in the adopt-a-horse program or long term sanctuaries. The HMAs and HAs were originally delineated in 1971. Census and gather /removal operations were initially coordinated in 1975 on the Cedar Mountain HMA and 1971 on the Onaqui Mountain HMA. Since 1975 approximately 1802 horses have been removed from both HMAs and placed in the adoption program.

The Cedar Mountain and Onaqui Mountain HMAs have been described in several documents. In general, horses within the SLFO have a slight to moderate builds, and average 700 to 800 pounds. Horses are predominantly sorrel, bay, roan, buckskin, and brown in color. In recent years however, pintos, grays, palominos, and roans have begun to increase in numbers. This increase in color may be tied to an introduction of horses from the Rock Springs, Wyoming area in the early 1990's.

Sex ratios for the wild horses in the Cedar Mountain and Onaqui Mountains herds are representative of other herds throughout the West. At birth, sex ratios are roughly equal. This balance shifts to favor studs throughout the younger age classes. This pattern shifts again at about 15 years favoring mares. This shift continues throughout older age classes. Trends for age demographics of the Cedar and Onaqui herds appear to be similar to those of reproductive rates.

The 1990 Pony Express RMP identified an AML of 85 animals on the Cedar Mountain HMA and 47 animals on the Onaqui Mountain HMA. Aerial inventories of Cedar Mountain during the period of 1975 to 1988 showed a population of between 125-219 (AML 85). During a similar period, wild horses ranged from 61 to 114 (AML 47) animals on the Onaqui HMA. Current population estimates based upon aerial survey and known foaling rates (between 20-25% on the Cedar Mountain area and 10-15% on the Onaqui Mountain area), place the number of animals at an

estimated 600 (AML 85) on the Cedar Mountains and approximately 200 (AML 47) animals on the Onaqui Mountains.

During the mid-1980's, a series of wildfires burned through most of the mixed-desert shrub type on the valley bottoms and foothills of the Cedar Mountain and Skull Valley. Vegetation is now dominated by introduced wheatgrass and cheatgrass. Later in the 1980's, fires burned salt desert shrub areas between the Onaqui and Davis Mountains. These areas, as well, are now dominated by crested wheatgrass and cheatgrass. In the late 1990's and in 2000, wildfire spread across thousands of acres of the juniper dominated mountaintops, converting vegetation to bluebunch wheatgrass/cheatgrass. These vegetation changes have resulted in a surplus of forage available for wild horse and other herbivore use, and may have led to additional increases in the horse population.

Since these vegetation conversions, the wild horse population within these HMAs has been steadily increasing, despite periodic gather efforts. The average number of wild horses on the Cedar Mountain HMA since 1991 has been 367 animals. Currently, horse numbers are between five and seven times the current AML. The ten-year average on the Onaqui HMA has been 131 horses, which is about 4.5 times the current AML.

Since 1990, vegetation utilization and horse census numbers have been monitored closely (Table 4, data in Appendix C) to determine horse impacts on rangeland resources. Interior Board of Land Appeals (IBLA) decisions require that AMLs be based on vegetation studies, which reflect the impact of wild horse use, in harmony with other multiple uses.

Table 4. Average percent utilization by year made by horses in the Cedar Mountains and Onaqui Mountains.

Year	Cedar Mountain		Onaqui Mountain	
	Horse Numbers	Avg. % Util.	Horse Numbers	Avg. % Util.
2001	540	27.1	No census data	--
2000	797	62.3	No census data	45
1999	600	48.1	185	--
1998	515	48.8	155	46
1997	377	50.4	134	--
1996	No census data	53.2	No census data	42.5
1995	355	38.8	No census data	44.2
1994	No census data	37.3	No census data	42.8
1993	268	53.3	96	53.7
1992	285	58.5	120	55.3
1991	444	48.1	169	--
Overall Avg.	**465**	**45.9**	**143**	**48.03**

Cedar Mountain HMA

The Cedar Mountain area is home to an estimated 350 head of horses. This number was derived from aerial census of the population, estimated increase, and the known removal of horses from the HMA. This number may fluctuate somewhat due to horse movement between the Cedar Mountain HMA and Dugway Proving Grounds to the south. Fences that might preclude horse movement between the two areas are generally insufficient to deter movement. Utilization determinations have been made on wild horse key areas in the Cedar Mountains from 1992-2001. The eight-year average on all horse key areas prior to green-up was 52%. Cheatgrass may range from 65% of total forage utilization in the spring to a low of 20% during the winter depending on production. Density photo trend plots were established on horse key areas in 1990 and 1991. The plots were read again in 1999. A visual comparison of the two readings shows declines in Indian ricegrass, squirreltail and pubescent wheatgrass. Increases were noted in tall wheatgrass, needle and

thread and Bluebunch wheatgrass. Areas where horse studies indicated that overuse was from concentrations of excess horses have had gathers on subsequent years to balance horse numbers with available forage.

During the past ten years, livestock actual use has been fairly consistent at approximately 15,000 AUMs. Wild horse numbers have varied depending on gather schedules, but have steadily increased. Utilization levels since 1990 have shown averages within acceptable limits. Trend studies have varied, with reductions of some desirable species and increases in others. Plots that showed a downward trend had very high wild horse concentrations as documented by utilization records prior to gather efforts in 1992.

Over the last ten years, actual use by horses has remained fairly consistent. The affect of fire on the area has resulted in vegetation shifts in some areas. The long-term combined numbers of wild horses and livestock are not having a noticeable negative impact to the vegetation on the Cedar Mountains. The most noticeable impact to the Cedar Mountain is the re-occurrence of wildfire and its effects on vegetation composition and soil movement.

Onaqui Mountain HMA

The Onaqui Mountains have fewer wild horses than the Cedar Mountains. This is a result of two factors. One is the increased number of mountain lions in the area that prey on the foals, which decreases the population growth rate. Another is that large populations of Mormon crickets have hatched during the past few years. These insects have a voracious appetite and have the ability in severe drought years to decimate the available forage base in a very short time especially at lower elevations.

Wild horse utilization estimates have been made on wild horse key areas from 1992 to 1998. Where monitoring studies indicated overuse from excess wild horses, gathers were held on subsequent years to balance horse numbers with available forage. The seven-year average use on all key areas prior to green-up was 48%. Despite these factors, horse body condition is apparently still good. No noticeably thin animals have been sighted or processed through the adoption program.

Livestock use has been fairly constant at permitted levels. Cattle are permitted within the Onaqui HMA between May and October. Sheep use portions of the Riverbed area during the winter (November through April).

Vegetation

This area varies in elevation from 4,250 feet in elevation at the valley floor in Skull Valley, to 7,500 feet and 8,200 feet at the highest points in the Cedar and Onaqui Ranges. Vegetation varies from the salt desert shrub and sagebrush types, to grass-juniper and juniper/barren ground type at the higher elevations. The extreme valley bottoms on the east side of the Cedar Mountains are in the greasewood shrub type due to the high water table. Annuals such as cheatgrass, halogeton, Squarrose knapweed and Russian thistle have invaded large areas. A fire interval of three to five years has established in these areas. As a result, the salt desert shrub and sagebrush types are largely absent within cheatgrass areas. Furthermore, fire rehabilitation seedings on the bench areas have had limited success of the reestablishment of shrubs.

Current wild horse forage demand is approximately 4,200 AUMs on the Cedar HMA and 2,400 AUMs on the Onaqui HMA (based on an 800 pound horse, 1.0 AU and a 12 month grazing period). Average annual vegetation production for the Cedar Mountain HMA is estimated to be 386 pounds

per acre, and typically about 442 pounds per acre for the Onaqui HMA. This was calculated using a GIS vegetation production map, (Figure 4) based on the Tooele County soil survey. The acres of each production category were determined using GIS and a weighted average was calculated (see tables in Appendix E).

Spark et al. (1990) compared current vegetation to surveyor field notes from the General Land Office (GLO). During the course of establishing range and township lines, the surveyors noted the major vegetation types (junipers, shrubs, perennial grasses, etc.) as they put in section corners. The Hastings Pass and Salt Mountain quadrangles in northern Skull Valley were surveyed in 1913 and 1871, respectively. The author resurveyed these areas for vegetation change and found between 80 to 100% conversion of the shadscale and sagebrush areas to cheatgrass. The authors identified grazing and fire as contributing to the conversion.

Historically, the west side of the Cedar Mountains has retained more native range because of fewer and smaller fires. This was because the Dugway ordinance training area, that initiates many fires, is not directly adjacent to this area except on the southern edge. However, since the late 1980's, large fires burned a great portion of the west side of the Cedar Mountains. These burned areas have come back in a mixture of native perennial grasses, introduced perennial grasses, and cheatgrass as a result of rehabilitation treatments that included the use of introduced perennial grasses. Today, much of the area includes cheatgrass, and tall and or crested wheatgrass at lower elevations. At higher elevations, native flora such as Bluebunch wheatgrass, Sandburg bluegrass, Wyoming big sagebrush, and Utah juniper are more common.

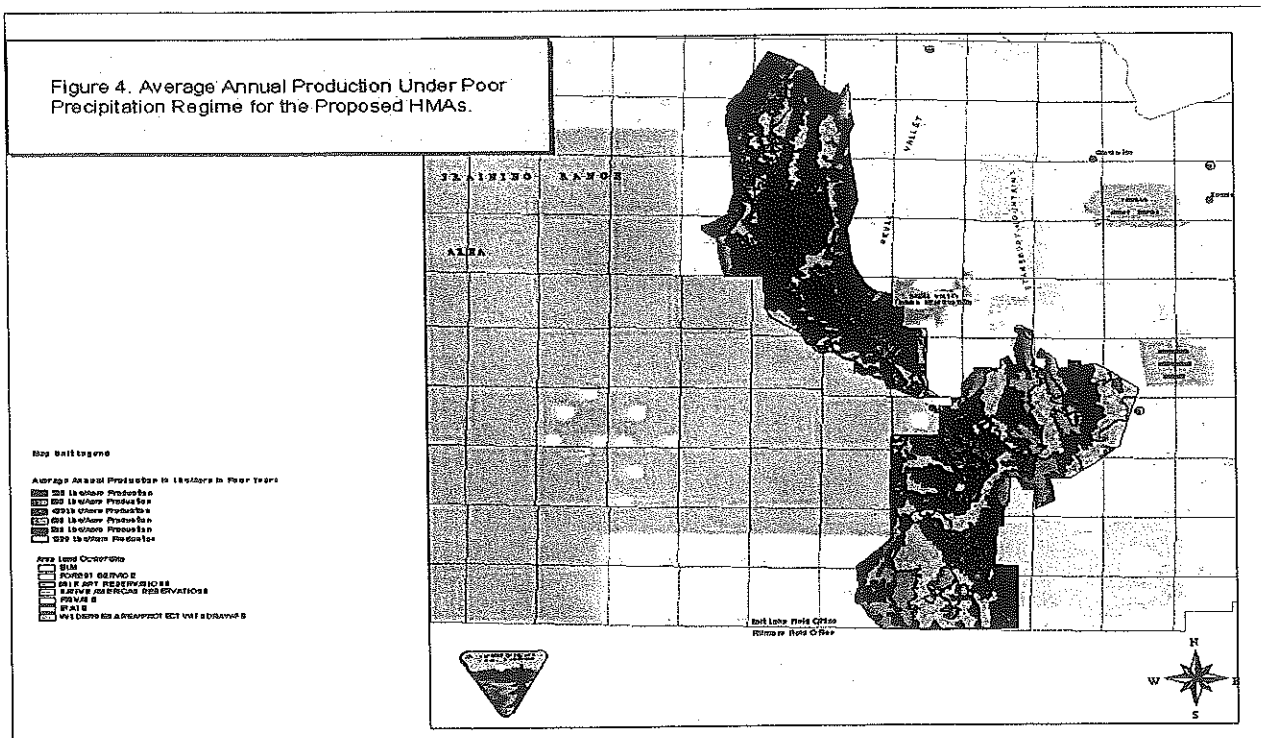

Figure 4. Average Annual Production Under Poor Precipitation Regime for the Proposed HMAs.

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Misalignment of data layers may have occured

During the late 1980s, a series of wildfires burned through most of the mixed-desert shrub type communities that dominated the valley bottoms as well as the juniper foothills of the Cedar

Mountains. Vegetation in these areas has come back as a mixture of introduced Cheatgrass, Wheat grasses, and native perennial grasses with some small pockets of residual shrub and Juniper components.

Soils

As described in the soil survey (NRCS 2000, Pages 5-14), there are seven general soil map units within the analysis area 1) Skumpah-Yenrab-Dynal, 2) Tooele-Cliffdown-Cliffdown-Timpie, 3) Hiko Peak-Tylorsflat-Medburn, 4) Borvant-Abela-Kapod, 5) Amtoft-Rock Outcrop-Checkett, 6) Lodar-Reywat-Lundy, and 7) Dateman-Podmar-Rock Outcrop. Soil delineations are found on portions of Map Sheets 55,56,71,72,87,88,103-107, 117-123, 133-138, and 151-153 (NRCS 2000). Refer to the soil survey for specific land capability classification and range site for each soil type (NRCS 2000, Pages 16-73). The climatic regimes in the analysis area are Desert, Semidesert, Upland, Mountain, and High Mountain. None of the soils in the analysis area are irrigated. Refer to the soil survey for specific land capability classifications and range sites for each soil type (NRCS 2000, Pages 16-73 or Table 5). Some of the general soil map units for specific features within the analysis area are included in the following paragraphs.

Major mountain draws including watering locations such as Quincy Springs, Brown Spring, Cochran Spring, and Tabby Spring are surrounded by Semidesert Shallow Loam (Utah juniper-bluebunch wheatgrass) range site/Amtoft-Rock Outcrop Complex 30-70% slopes soil unit. Runoff is very rapid. The erosion hazard of water is severe and wind is light. Suitability for grazing is generally poor because of low forage production and slope. However, horses have been observed using these steep slopes for foraging. The infiltration rate for this hydrologic group is slow with a high runoff potential.

Mountain ridgelines include upland shallow loam (PJ) and mountain stony loam (antelope bitterbrush) range sites/Reywat-Broad-Rock Outcrop Association 30-60% Slopes soil unit. Runoff is very rapid. The erosion hazard of water is severe and of wind is slight. Grazing suitability is very poor to fair relative to slope.

Foothill regions including features such as Rydalch Canyon or Davis Knoll encompass desert loam (shadscale) range site/Tooele fine sandy loam 0-5% slope soil unit or desert gravelly loam (shadscale) range site/Cliffdown gravelly sandy loam 2-15% Slope. Runoff is slow to moderate. The erosion hazard due to water is slight and due to wind is moderate. There are capability classification limitations that require careful management because of shallow, droughty or stony soils.

Valley bottoms contain the desert salty silt (pickleweed) range site/Playas-Saltair Complex 0-1% slopes map unit. Runoff is slow. The erosion hazard due to water is slight and due to wind is moderate. The capability classification is limited for crop production. Playas, lake terraces or valley bottoms are subject to repeated inundation by water. Water accumulation is common in the spring and is expressed as ponding within the greasewood, saltgrass or pickleweed plant communities.

ENVIRONMENTAL CONSEQUENCES

Direct and Indirect Impacts

Proposed Action:

Cultural and Historical

Reducing the actual number of horses from the current population (estimated at 350 and 200+ animals for the Cedar Mountains and Onaqui Mountains respectively) should reduce the likelihood of wild horse contact with cultural/historical resources. This would be directly related to distribution and frequency of horses within the analysis area. Erosion rates within the analysis area remain a function of soil site stability and soil type. Refer to the Soil analysis in the affected environment.

Wilderness

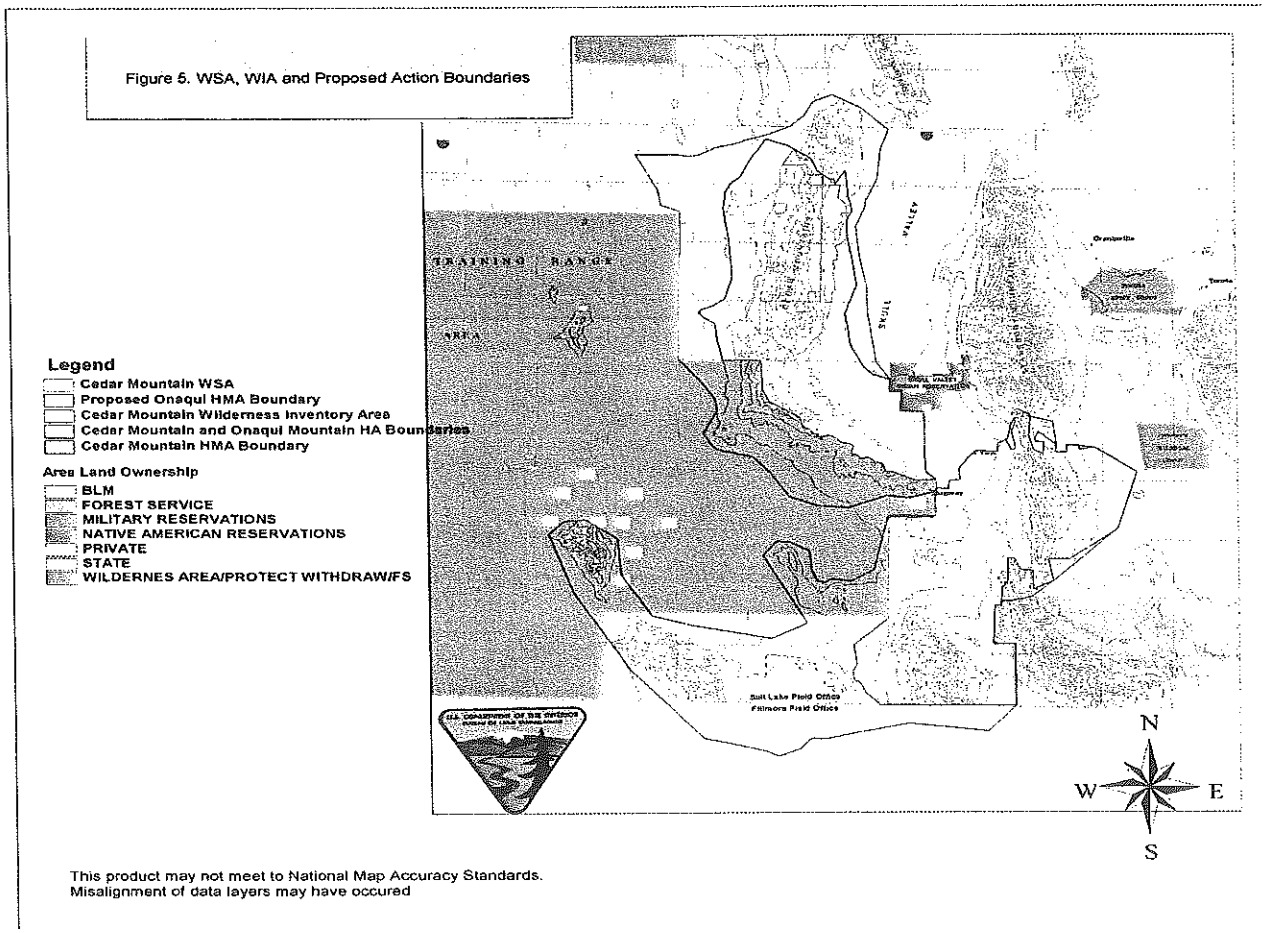
Cedar Mountains Wilderness Study Area (WSA)
The proposed action would expand the HMA/HA to include the entire Cedar Mountains WSA (See Figure 5). Direct and indirect impacts of the proposed action on the WSA have been analyzed in the table below:

Wilderness Characteristic	Characteristic Identified in the Cedar Mountains WSA	Direct and Indirect Impacts of Proposed Action Alternative
Size	50,500 acres	No affect, as no roads would be constructed.
Naturalness	Entire WSA met naturalness criteria	As there are currently more horses in the analysis area than the level set in the Pony Express RMP, reducing the horse numbers to meet the AML in the proposed action would decrease concentrations of horses in the WSA. Reducing the number of horses could enhance upland and riparian vegetative communities and thus the natural condition of the WSA by decreasing concentrations of horses at watering areas and keeping horses in balance with the available forage.
Outstanding Opportunities for Solitude &/or Primitive & Unconfined Recreation	Opportunities for solitude, hunting, horseback riding, backpacking, hiking, and rock climbing	Overall, outstanding opportunities for solitude and/or primitive recreation would not be affected.
Supplemental Values	Wild and free roaming horses, T&E wildlife species and special status wildlife species.	Decreasing the number of horses to meet the criteria of the proposed action could reduce the opportunity to view wild horses in the WSA, but the opportunity would still be present. No impacts are expected to wildlife and thus to the supplemental values of the WSA.
Conclusion		None of the WSA area would be disqualified from consideration as wilderness as a result of the Proposed

		Action and associated management actions.

Cedar Mountains and Dugway Mountain Wilderness Inventory Areas (WIAs)
The proposed action would expand the HMA/HA to include the entire Cedar Mountains WIA and the northern portion of the Dugway Mountains WIA (See Figure 5). Direct and indirect impacts of the proposed action on the WIAs have been analyzed in the table below:

Wilderness Characteristic	Characteristic Identified in the Cedar Mountains WIA	Direct and Indirect Impacts of Proposed Action Alternative
Size	Cedar Mountain WIA 15,540 acres. Dugway Mountain WIA 18,201 Acres	No effect as no roads would be constructed
Naturalness	15,540 acres and 18,201 acres determined to be natural in character for the Cedar Mountain and Dugway Mountain WIAs respectively.	As there are currently more horses in the analysis area than the level set in the Pony Express RMP, reducing the horse numbers to meet the AML in the proposed action would decrease concentrations of horses in the WIA. Reducing the number of horses could enhance riparian and upland vegetative communities and thus the natural condition of the WIAs by decreasing concentrations of horses at watering areas and keeping horses in balance with the available forage .
Outstanding Opportunities for Solitude &/or Primitive & Unconfined Recreation	Cedar Mountain and Dugway Mountain WIAs -- Opportunities for solitude, viewing wild horses, hunting, hiking, backpacking, and horseback riding	Decreasing the number of horses to meet the criteria of the proposed action may reduce the opportunity to view wild horses in the WIA, but the opportunity would still be present. Overall, outstanding opportunities for solitude and/or primitive recreation should not be affected.
Supplemental Values	Cedar Mountain WIA -- Historic California Trail at Hastings Cutoff. Dugway Mountains WIA – Pony Express National Historic Trail, scenic views, and wildlife	There would be no adverse effects on the supplemental values provided by the historic California Trail, Pony Express NHT, or scenic views.
Conclusion		None of the WIAs would be disqualified from consideration as WSAs as a result of the Proposed Action and associated management actions.



Riparian

The Proposed Action would be consistent with the intent of the SLDO Riparian Strategic Plan (1989), which emphasizes management direction that incorporates riparian value enhancement and protection. When monitoring studies show that horse numbers are causing a decline in riparian health, the authorized officer could take action accordingly. Utilization key areas would be established in riparian areas to supplement existing upland sites. If the wild horse numbers increase to the high end or over AMLs and these animals are concentrating in particular riparian areas causing streambank damage or otherwise hindering riparian function, then monitoring data collected could be used to initiate routine gathers or adjustments to the actual AML. Following these management strategies should enhance riparian values.

As such, an adjustment to the HMA/HA and AML would not degrade or perpetuate management concerns within riparian communities. Objectives to enhance riparian length, flow, acreage, upland transitions, age-class, recruitment, diversity, cover, sinuosity, stability and balance could be met or specific progress could be documented depending on the riparian area. It is anticipated that riparian habitats currently in At-Risk status could improve or remain static within the first five years of implementation and could be maintained with a high degree of reliability under 5, 10, or 20 year event on areas that are totally available to the wild horses. Areas that are at PFC would be maintained. Functional status changes on areas that are excluded or are developed would not be expected because of system's capability. When and if an extreme flow event occurs in the analysis area, the likelihood of the streams remaining intact increases under the proposed action versus that of the current situation.

Inherently, horse numbers currently in the analysis area would be reduced and it is expected that forage demand from riparian zones would be directly related. Actual use especially during hot/summer months would be decreased dramatically from the current situation and then maintained under this alternative. In subsequent years, wild horses would be distributed based on their herd behaviors with water as the limiting factor. Likewise, demands on spring/water locations would drop proportionally. Water yield at the major development/range improvements would support the AML described during drought years, thereby limiting the competitive behaviors (lingering/digging) at the water sources. Adequate vegetation could be retained on site and would be available to dissipate stream energies in the spring. Riparian systems could be maintained or improved because of increased management emphasis and support.

Wildlife

Some wildlife species depend on occasional years of higher production. These periods allow for higher nutrient yields for better fawn survival and increased body fat. The nature of cheatgrass in these areas is such that a major reduction of wildlife forage is unlikely. Effects on wildlife would be minimal. Sufficient forage as allocated by the Pony Express RMP and the associated Stansbury Habitat Management Plan (HMP) would be available to wildlife. The potential for conflicts with wildlife for water would increase slightly, however based upon observations of the current high population numbers, not enough to be of significance.

Wild Horses

By increasing the number of horses in the AML, genetic diversity of animals would be sustained. Genetic defects, if present, would be diluted by a reduction in inbreeding that may occur in smaller populations. Current horse populations rely heavily on the increased grass forage including annual grasses that has resulted from the fire situation evolved over the past 10 to 15 years. Dependence on annual forage could lead to forage deficiencies in drought years or destructive fire years. Monitoring data indicates that in recent years, utilization of key species has been within acceptable levels. In addition, during drought conditions, as has occurred during the last few years, many of the springs and seeps dry up, limiting the number of horses that the area will support. It is reasonable to assume that current horse numbers (about 350 and 200 animals) are not sustainable under average or poor conditions; however, the numbers identified in the proposed alternative would be.

The proposed action would enable the enhanced management of the wild horse program within the jurisdiction of the SLFO by setting upper limits on the number of horses to be allowed in the area. This would allow the horses to exist in a better ecological balance within the environment. Under the current decision, there is no guidance on the maximum number of horses the area would support in a thriving ecological balance. The aforementioned numbers for the Cedar Mountains are based on an observed annual reproduction rate of approximately 20% and an estimated gather cycle of every four years. These figures allow for a use by horses of approximately 12 % of the available annual production for the affected area (about 23,289 AUMs). The remaining portion of the annual production would be utilized by livestock and wildlife to assist the Utah Division of Wildlife Resources in working towards their wildlife population goals. The HMA boundary would be expanded to include important winter ranges that were excluded in the HMA as identified by the RMP. These areas, which are currently used by horses, include the lower valley bottoms (above the sand dunes on the west side of the mountains and the greasewood/mud flats on the east side). The HA would increase from 182,724 to 402,155 acres (386,155 acres of BLM managed lands). The boundaries for the HMA would

be set to delineate those areas within the HA which can be managed for long-term wild horse use. Areas outside of the HMA, but within the HA would be considered overflow areas and used as indicators of potential overstocking problems (Figure 2). The overriding limiting factor for the carrying capacity of the horses in the Cedar Mountains is not the available forage, but the supply of reliable water. The lower number on the AML range is the number of horses the area would support under drought conditions as measured this year.

The figures for the Onaqui Mountain herd are based on an observed reproduction rate of approximately15% and an estimated gather cycle of every four years. The levels chosen would keep the utilization of the annual production by horses and livestock to around 30% (1.7% by horses). The reason for the difference in the utilization levels is the presence of crucial mule deer winter range, which occurs on the Onaqui Mountains, but not on the Cedar Mountains. In addition, there are occasionally elk that roam over from the southern Onaqui Mountains. The HMA boundary would be expanded to include the entire area identified as being wild horse use areas prior to 1971 and the passage of the WH&B Act. This would extend the HMA west to the Dugway Proving Grounds Boundary, North to almost Johnson Pass, and South into the Simpson Mountain range to the Fillmore/Salt Lake Field Office Boundary. These areas are currently being used by horses and include critical wintering range. This would increase the total acreage from 43,880 to 205,394 (Figure 2) in the HMA, with an additional 240,997 acres in the expanded HA. The boundaries for the HMA would be set to delineate those areas within the HA which can be managed for long-term wild horse use. Areas outside of the HMA, but within the HA, would be considered overflow areas and used as indicators of potential overstocking problems.

Following implementation of this action monitoring would occur to determine the effectiveness of this action. If it were determined through this monitoring that the number of horses needs to be adjusted on either area, adjustment of the numbers would take place following appropriate environmental analysis. Adjustment of horse numbers would most likely occur through roundups.

Vegetation

The amount of standing vegetation remaining would remain relatively static from year to year. Soil erosion potential would be greatly decreased on seeded areas by trampling and incorporation of old standing vegetation into the soil surface. Squarrose knapweed will continue to invade along trails. It is possible that an increase in horse numbers may lead to an increase in the spread rate of noxious weeds. However, even under the preferred alternative there would be an actual decrease in horse numbers from the number of horses currently occupying the HAs, and a subsequent decrease in the spread rate of noxious weeds may occcur.

Soils

Soil/Site Stability could improve under this alternative especially on the summer ranges within the HMAs. Decreasing horse numbers from the current situation could prevent further soil compaction surrounding spring/water sources and along the trails. It is unlikely that any of the established trails due to horse use would revegetate without human manipulation (improvements), however the trailing activity of wild horses would not cause width increases.

Remote locations within the HAs, such as Dugway Mountain, would not receive concentrated use by the horses and soil compaction would be unlikely. Soil protection from wind and water erosive forces would be enhanced; adequate vegetation including litter would remain on site. As calculated in Appendix D, the forage distribution to watershed protection would be more than adequate to protect steep slopes, major draws and foothill features within the analysis area.

Water flow patterns identified in the Rangeland Health Assessments could be reduced or remain as expected for the sites because of the herbage left on site. The soil surface resistance to erosion could increase or be maintained throughout the analysis area with an anticipated increase in soil organic matter and infiltration rates. Infiltration rates would not change or increase on high clay content soils. Soil stability in low production areas within the analysis area, especially in plant interspaces would improve because there would be less disruption by horse hoof action.

The severe limitations by Landscape Capability Classification identified in the soil survey were referring to cultivation or crop production and slope. Erosion hazards due to wind and water could be minimized by this alternative as described in the previous paragraphs.

No Action Alternative

Cultural

Responses to the no action alternative would be similar to those described in the Proposed action alternative.

Wilderness

Cedar Mountains Wilderness Study Area (WSA)

Under the no action alternative, most of the WSA would be within the Cedar Mountains HMA/HA (See Figure 1). Direct and indirect impacts of the no action alternative on the WSA have been listed in the table below:

Wilderness Characteristic	Characteristic Identified in the Cedar Mountains WSA	Direct and Indirect Impacts of No Action Alternative
Size	50,500 acres	No affect, as no roads would be constructed.
Naturalness	Entire WSA met naturalness criteria	As there are currently more horses in the analysis area than the level set in the Pony Express RMP, reducing the horse numbers would decrease concentrations of horses in the WSA. Reducing the number of horses to a lower number than the proposed action could enhance upland and riparian vegetative communities and thus the natural condition of the WSA by decreasing concentrations of horses at watering areas and keeping horses in balance with the available forage.
Outstanding Opportunities for Solitude &/or Primitive & Unconfined Recreation	Opportunities for solitude, hunting, horseback riding, backpacking, hiking, and rock climbing	Overall, outstanding opportunities for solitude and/or primitive recreation would not be affected.
Supplemental Values	Wild and free roaming horses, T&E wildlife species, and special status wildlife species.	Decreasing the number of horses to meet the AML set in the Pony Express RMP could reduce the opportunity to view wild horses in the WSA, however, the opportunity would still be present. No impacts to wildlife and thus supplemental values are expected.
Conclusion		None of the WSA area would be disqualified from consideration as wilderness as a result of the Proposed Action and associated management actions.

Cedar Mountains Wilderness Inventory Areas (WIA)

Under the no action alternative, most of the WIA would be within the Cedar Mountains

HMA/HA (See Figure 1). Direct and indirect impacts of the no action alternative on the WSA have been listed in the table below:

Wilderness Characteristic	Characteristic Identified in the Cedar Mountains WIA	Direct and Indirect Impacts of No Action Alternative
Size	15,540 acres	No affect
Naturalness	15,540 acres determined to be natural in character	As there are currently more horses in the analysis area than the level set in the Pony Express RMP, reducing the horse numbers would decrease concentrations of horses in the WIA. Reducing the number of horses to a lower number than the proposed action could enhance upland and riparian vegetative communities by decreasing concentrations of horses at watering areas and keeping horse numbers in balance with the available forage.
Outstanding Opportunities for Solitude &/or Primitive & Unconfined Recreation	Opportunities for solitude, viewing wild horses, hunting, hiking, backpacking, and horseback riding	Decreasing the number of horses to meet the AML set in the Pony Express RMP could reduce the opportunity to view wild horses in the WIA, but the opportunity would still be present. Overall, outstanding opportunities for solitude and/or primitive recreation will not be affected.
Supplemental Values	Historic California Trail at Hastings Cutoff	There would be no affect on the supplemental values provided by the historic California Trail.
Conclusion		None of the WIA area would be disqualified for consideration as a WSA as a result of the selection of the No Action alternative and associated management actions.

Riparian

Like the Proposed Action, the No Action Alternative would be consistent with the intent or provisions of the SLDO Riparian Strategic Plan, Utah Non Point Source Pollution Management Plan and Utah Division of Water Quality's 2000 Water Quality Monitoring Program. The likelihood of achieving Utah's Standard for Rangeland Health #2 is greatest under this alternative because of fewer wild horses expected within the HAs.

It is anticipated that riparian areas currently in At-Risk or PFC status could improve within two years of implementation and could be maintained with a high degree of reliability. Riparian areas would respond favorably in an extreme flow event. The response of riparian areas would be similar to that described in the Proposed Action.

Actual use or forage demand would be greatly reduced and the residual vegetation would be adequate for controlling stream energies especially during spring or summer flows. Because horses are distributed by the presence of mountain lion or human activity, fewer horse numbers defined in the No Action would benefit riparian resources versus what could occur in the current situation or proposed action.

Wildlife

Maintaining wild horse numbers at the levels set forth in the PRMP would minimize potential conflicts with wildlife for water. However, the additional fine fuels that might remain as a result of the decrease in the present number of grazing animals in the area could contribute to high-intensity wildfires that may diminish habitat for raptors, mule deer or neotropical bird species.

Wild Horses

Achieving and retaining the herd at the current AML (85 animals on the Cedar Mountains and 45 animals on the Onaqui Mountains) would require increased herd management, including gathers on an annual or bi-annual basis. These round-ups would put additional horses into an adoption program that is already over capacity. Round-ups this often would increase the risk of injury or death. With current resources of personnel and money, the SLFO could not reach or maintain the current AML. Additionally, maintaining the herd size at 45 animals on the Onaqui Mountain herd would reduce the ability of the herd to maintain genetic diversity. Keeping the population of wild horses at these low numbers might create less conflict with livestock and wildlife. This would be especially true during drought years. Trailing frequency and intensity would be reduced considerably within the analysis area.

Vegetation

Keeping wild horse numbers at the levels described in the PRMP should reduce overall vegetation utilization levels by wild horses. Cheatgrass communities may increase due to reduced pressure through grazing especially in the spring. This in turn could result in an increase in fire frequency, size, and intensity. Squarrose knapweed would continue to invade along trails; however, the invasion rate might be slower than the current progression given a decrease in the number of horses present.

Soils

Soil stability and function responses would be similar to those described in the Proposed Action for those areas outside of the HMA/HA boundaries. Soil integrity may not be maintained for areas inside the HMA/HA boundaries because horse use would be concentrated on a smaller area. This could lead to an increased impact on soils in the area due to compaction and possible erosion effects.

Adjust Wild Horse Numbers to the Minimum Level Alternative

Cultural

Responses to this alternative would be similar to those described in the No Action Alternative.

Wilderness

Impacts to the wilderness characteristics of Cedar Mountains WSA and WIA would be similar to those described under the No Action Alternative.

Riparian

Impacts to riparian areas would be similar to those discussed in the No Action Alternative.

Wildlife

The reduction in horse numbers on the Cedar Mountains, and the maintenance of wild horse numbers at the levels set forth in the PRMP on the Onaqui Mountains would minimize potential conflicts with wildlife for water. However, the additional fine fuels that might remain as a result of the decrease in the number of grazing animals in the area could contribute to high-intensity wildfires that may diminish habitat for raptors, mule deer or neotropical bird species.

Wild Horses

While the population levels described in this alternative should maintain genetic viability under normal circumstances, severe circumstances such as drought may prove detrimental to the maintenance of a thriving ecologically balanced population of wild horses. In addition, the opportunity for public enjoyment through viewing the horse would also be decreased.

Vegetation

Keeping wild horse numbers at the levels described in this alternative should reduce vegetation utilization levels by wild horses, however, the invasion of cheatgrass, which may form a large portion of wild horse diets, may increase due to reduced pressure through grazing. It is possible that a reduction in the number of horses may lead to a reduction in the spread rate of noxious weeds in the area, however, as horses are not the only factor in the spread rate of noxious weeds, this cannot be positively determined at this time.

Soils

Soil stability and function responses to the Minimum Viable Population Alternative would be similar or better to those described in the Proposed Action.

Cumulative Impacts:

SLFO is in the process of developing a water quality and riparian area management plan that would incorporate best management practices necessary for enhancing or managing riparian areas. Relevant practices for animal trails, developments, streambank protection, cover (etc.) would be incorporated into the HMA/HA monitoring program as described in Utah's Non-point Source Pollution Management Plan and Natural Resources Conservation Service Field Office Technical Guides.

Dugway Proving Grounds is proposing an increase in the number of training missions conducted. This action has the potential to move horses from Dugway Proving Ground North onto BLM lands. Proper monitoring of the effects of these potential actions would determine if additional adjustments to the AMLs would be necessary.

There is a right-of-way proposal being addressed in an Environmental Impact Statement (PFS EIS) that would allow a railroad along the lower east slope of the Cedar Mountains from I-80 to the Goshute Indian Reservation. This railroad could temporarily interrupt wild horse movement between the valley floor and the Cedar Mountains. Railroad traffic would be light, so the disruptions should be slight.

Wilderness: Under all of the alternatives, the SLFO, BLM could effectively manage the existing Cedar Mountains WSA in accordance with IMP. None of the alternatives would preclude any future wilderness or wilderness study area designation. Any impacts associated with future activities will be mitigated or the activities will be planned in such a way as to reduce potential impacts to wilderness areas.

Cultural impacts: Future activities associated with roundups or other projects have the potential to affect Cultural Resources. Site-specific analysis for each future action at a Class III Level would occur prior to the initiation of any action. Future proposals will be constructed in such away as to avoid impacts to cultural or historical resources.

Delle Station Expansion: The Delle Station is under new ownership. The potential for expansion exists, however prior to expansion, new water sources may have to be located to fill the needs of any such expansion. Expansion of the station could cause an increase in tourist or recreational use of the area.

Neotropical birds and other wildlife species could be temporarily affected as a result of future activities associated with horse roundups. Site-specific analysis for future actions would be addressed in NEPA documents specific to the actions to be taken.

Future oil and or gas exploration: There have been industry inquiries in nominating potential sites within Skull Valley for oil and gas. This exploration would cause transitory disturbance that could cause the temporary displacement of wild horses and or wildlife species. If leases were developed, both horses and wildlife could adjust to the activity levels. Vegetation that was disturbed during exploratory activities should not be of a sufficient magnitude to influence wildlife or wild horse activities. Should development of exploration occur, it might be necessary to develop alternative water sources or other mitigating measures as a function of the lease proposals.

Recreation use; Motorized and non-motorized uses of the area are expected to increase with projected increases in the population of the Wasatch Front. It is expected that there would be a proportional increase in wild horse viewing and other activities in the wild horse areas. Impacts on the environment should be minimal if the current guidance and directives for recreation management are followed and enforced.

Any Special Recreation Permits (SRP) authorized by the SLFO would include the following specific permit stipulations:

1. The __(activity/event)__ will occur within the vicinity of a wild horse herd. Chasing or harassing of wild horses is a crime and is subject to monetary fines, incarceration, or both. It is the responsibility of the permittee to ensure participants and all individuals associated with event do not participate in the chasing or harassment of wild horses.

Private Lands and Economic Development; Lands in the area are primarily utilized by the livestock industry. Private lands are used for grazing and care of livestock during periods when public lands are not available for use. The expected forecast is for this activity to continue as at present.

CONSULTATION AND COORDINATION

The following individuals have prepared this environmental assessment:

Kyle Hansen, Wild Horse and Burro Specialist
Britta Laub, Outdoor Recreation Planner
Pam Schuller, Range Management Specialist
Nate Packer, Wildlife Technician
Laird Naylor, Archeologist
Mike Gates, Range Management Specialist
Mandy Rigby, Outdoor Recreation Planner
William Dragt, Lead Rangeland Management Specialist
Lori Hunsaker, Archaeologist
Curtis Warrick, Branch Chief, Renewable Resources
Dan Washington, Natural Resource Specialist/Wildland Urban Interface
Alice Stephenson, NEPA Coordinator and Planning
Michael Ford, Geologist
Todd Christensen, Associate Field Office Manager

These agencies/groups were consulted during issue identification for this environmental assessment:

U.S. Fish and Wildlife Service
U.S. Army - Dugway Proving Grounds
Utah Division of Wildlife Resources
Southern Utah Wilderness Alliance
Ensign Ranches of Utah
Skull Valley and Ibapah Goshute Tribes

REFERENCES

BLM-SLDO. 1989. Salt Lake District Office Riparian Strategic Plan. Salt Lake City, Utah. Unpublished Report. 27pg.

DeFlon, James G. 1986. The Case for Cheat Grass. Rangelands 8(1).Tausch, Robin J.; Nowak, Robert S.; Bruner, Allen D.; Smithson, James. 1994. Effects of simulated fall and early spring grazing on cheatgrass and perennial grass in western Nevada. Proceedings--Ecology and Management of Annual Rangelands. USDA, General Technical Report INT-GTR-313.

NRCS. 2000. Soil Survey of Tooele Area, Utah. Natural Resources Conservation Service. Salt Lake City, Utah. 269pg.

Sparks, Steven R.; West, Neil E.; Allen, Edith B. 1990. Changes in vegetation and land use at two townships in Skull Valley, Western Utah. USDA, Forest Service, Intermountain Res. Sta. Gen. Tech. Rpt., INT-276.

Tausch, R., J. Svejcar, T. Buckhardt, J. Wayne. 1994. Patterns of annual grass dominance on Anoho Island: implications for Great Basin vegetation management. Proceedings--Ecology and Management of Annual Rangelands. USDA, General Technical Report INT-GTR

Utah-DEQ. 2000. Utah Nonpoint Source Pollution Management Plan. Utah Department of Environmental Quality. Division of Water Quality. Salt Lake City, Utah. 110pg.

Utah-DEQ. 2000. Utah's 2000 303(d) List of Waters. Utah Department of Environmental Quality. Division of Water Quality. Salt Lake City, Utah. 77pg.

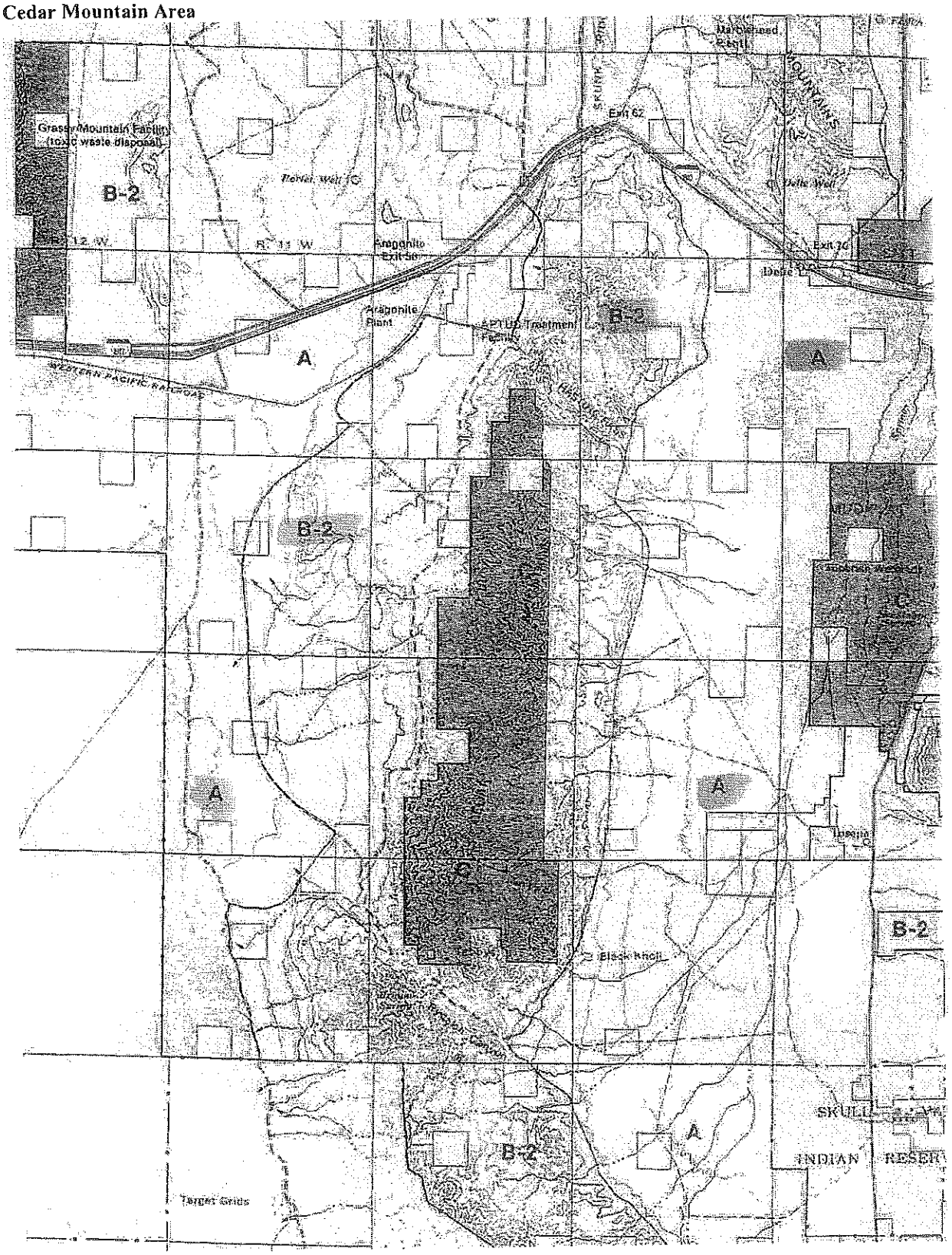
Utah-DEQ.2000. Utah Division of Water Quality's 2000 Water Quality Monitoring Program. Division of Water Quality. Salt Lake City, Utah. 51pg.

Young, J. A.; Evans, R.A. 1973. Downy brome - intruder in the plant succession of big sagebrush communities in the Great Basin. Journal of Range Management. 26: 410-415.

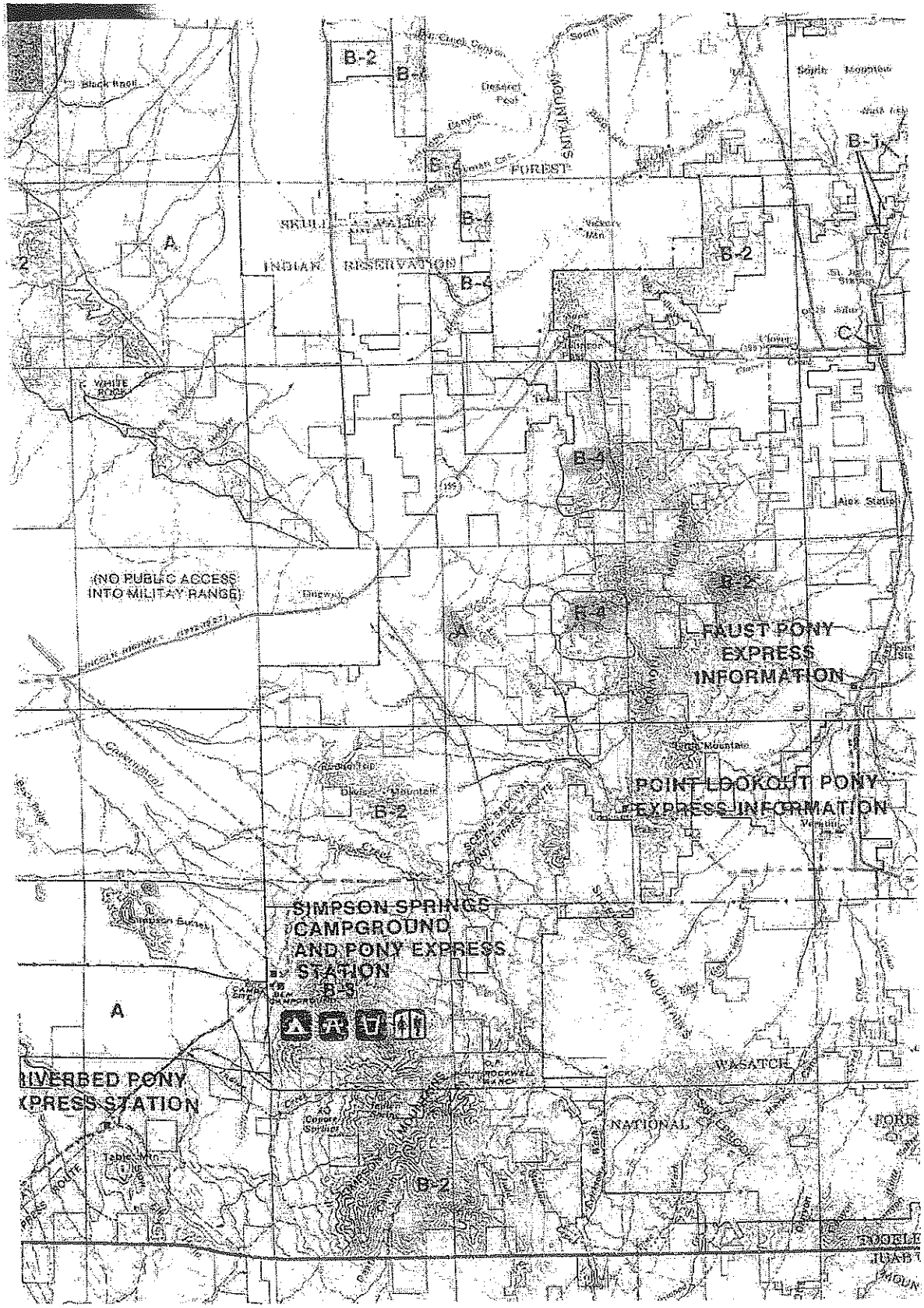
APPENDICES

Appendix A. OHV Designation Maps

Cedar Mountain Area



Onaqui Mountain Area



A OPEN TO MOTOR VEHICLE USE

OPEN areas allow use of all types of vehicles at all times, anywhere within the area, subject to operating regulations and vehicle standards set forth in federal and state laws.

B LIMITED USE AREAS

LIMITED areas may restrict motorized vehicle use at certain times, in certain areas and/or to certain vehicular use.

B-1 Motor vehicle use is limited to designated roads and trails year-round for public safety and to assist in the protection of soils, vegetation, wildlife habitat, cultural resources, watershed, riparian wetlands, and visual resources.

Geographic Area: RUSH LAKE, SILVER ISLAND MOUNTAINS, STANSBURY ISLAND, STOCKTON FOOTHILLS, WHITE LAKE

B-2 Motor vehicle use is limited to existing roads and trails year-round to promote resource values of soils, vegetation, wildlife habitat, cultural, watershed, riparian, wetlands, and visual resource.

B-3 SIMPSON SPRINGS CAMPGROUND

Motorized vehicle "play" is prohibited within one-quarter mile distance of the campground. All motor vehicle use is limited to existing roads and trails at the Simpson Springs Recreation Area year-round for public safety.

B-4 BIG GAME WINTER RANGE

Motor vehicle use is limited to designated roads from December 1 to April 15. For the remainder of the year, motorized use is limited to existing roads and trails.

B-5 BONNEVILLE SALT FLATS

Motor vehicle use is limited by a seasonal closure during the spring when the salt is moist or has standing water on the surface. Closure dates may vary and will be posted by sign.

B-6 HORSESHOE SPRINGS RECREATION KNOLL

The area is closed to recreational motor vehicle "play" between December 1 and April 15. However, motorized access to camp in the recreation area is allowed during this period. The area is limited to existing roads and trails for the remainder of the year.

CLOSED AREAS

Areas designated as closed prohibit use of vehicles throughout the year.

SNOWMOBILE DESIGNATIONS
(not shown on map)

OPEN AREAS:

Snowmobile use is open to "over the snow" travel in areas designated as Open and Limited.

CLOSED AREAS:

Snowmobile use is closed year-round in areas designated closed, and between December 1 to April 15 in the B-4 limited areas.

Appendix B. Correspondence

Mr .Reed Harris, Field Supervisor
Fish and Wildlife Service
Utah Field Office
2369 West Orton Circle, Suite 50
West Valley City, UT 84119

Dear Mr. Harris:

Consistent with the requirements of the Endangered Species Act, I am requesting a list of T/E species that may occur or be affected by our proposed action (attached), the establishment of Appropriate Management Levels (AML) and Herd Management Area (HMA) boundaries for wild horses on and around the Onaqui and Cedar Mountains in Tooele county Utah.
Please consider our request as conferencing in an effort to avoid impacts to T/E species.

Sincerely,

Glenn A. Carpenter
Field Office Manager

Enclosures

United States Department of the Interior
FISH AND WILDLIFE SERVICE
UTAH FIELD OFFICE
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UTAH 84119

RECEIVED
SL FIELD
OFFICE
02 SEP 8 PM 2 09
DEPT OF INTERIOR
BUR. OF LAND MGMT

In Reply Refer To
FWS/R6
ES/UT

September 6, 2002

To: Field Office Manager, Bureau of Land Management, Salt Lake District Office, 2370 South 2300 West, Salt Lake City, Utah 84119

From: Field Supervisor, Fish and Wildlife Service, Ecological Services, West Valley City, Utah

Subject: Species List Request for the Onaqui and Cedar Mountains

In response to your letter dated September 5, 2002, below is a list of endangered (E), threatened (T), and candidate (C) species that may occur in the area of influence of your proposed action.

Common Name	Scientific Name	Status
Ute Ladies'-tresses	*Spiranthes diluvialis*	T
Bald Eagle[3]	*Haliaeetus leucocephalus*	T
Western Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	C

[3] Wintering populations (only four known nesting pairs in Utah).

The proposed action should be reviewed and a determination made if the action will affect any listed species or their critical habitat. If it is determined by the Federal agency, with the written concurrence of the Service, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is complete, and no further action is necessary.

Formal consultation (50 CFR 402.14) is required if the Federal agency determines that an action is "likely to adversely affect" a listed species or will result in jeopardy or adverse modification of critical habitat (50 CFR 402.02). Federal agencies should also confer with the Service on any action which is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10). A written request for formal consultation or conference should be submitted to the Service with a completed biological assessment and any other relevant information (50 CFR 402.12).

Candidate species have no legal protection under the Endangered Species Act (ESA). Candidate species are those species for which we have on file sufficient information to support issuance of a proposed rule to list under the ESA. Identification of candidate species can assist environmental planning efforts by providing advance notice of potential listings, allowing resource managers to alleviate threats and, thereby, possibly remove the need to list species as endangered or

threatened. Even if we subsequently list this candidate species, the early notice provided here could result in fewer restrictions on activities by prompting candidate conservation measures to alleviate threats to this species.

Only a Federal agency can enter into formal Endangered Species Act (ESA) section 7 consultation with the Service. A Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA section 7, however, remains with the Federal agency.

Your attention is also directed to section 7(d) of the ESA, as amended, which underscores the requirement that the Federal agency or the applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable and prudent alternatives regarding their actions on any endangered or threatened species.

Please note that the peregrine falcon which occurs in all counties of Utah was removed from the federal list of endangered and threatened species per Final Rule of August 25, 1999 (64 FR 46542). Protection is still provided for this species under authority of the Migratory Bird Treaty Act (16 U.S.C. 703-712) which makes it unlawful to take, kill, or possess migratory birds, their parts, nests, or eggs. When taking of migratory birds is determined by the applicant to be the only alternative, application for federal and state permits must be made through the appropriate authorities. For take of raptors, their nests, or eggs, Migratory Bird Permits must be obtained through the Service's Migratory Bird Permit Office in Denver at (303) 236-8171.

We recommend use of the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* which were developed in part to provide consistent application of raptor protection measures statewide and provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the Raptor Guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors, including the peregrine falcon.

The following is a list of species that may occur within the project area and are managed under Conservation Agreements/Strategies. Conservation Agreements are voluntary cooperative plans among resource agencies that identify threats to a species and implement conservation measures to proactively conserve and protect species in decline. Threats that warrant a species listing as a sensitive species by state and federal agencies and as threatened or endangered under the ESA should be significantly reduced or eliminated through implementation of the Conservation Agreement. Project plans should be designed to meet the goals and objectives of these Conservation Agreements.

Common Name	Scientific Name
Bonneville Cutthroat Trout	*Oncorhynchus clarki utah*
Least Chub	*Iotichthys phlegethontis*

If we can be of further assistance or if you have any questions, please feel free to contact Laura Romin of our office at (801)975-3330 extension 142.

Arend, Refuge Planning, at (907)786-3393, fax (907) 786-3965.

SUPPLEMENTARY INFORMATION: The Alaska National Interest Lands Conservation Act (ANILCA) (16 U.S.C. 3101 *et seq.*) was signed into law on December 2, 1980. The broad purpose of this law is to provide for the disposition and use of a variety of federally owned lands in Alaska. Section 303 of ANILCA established Togiak National Wildlife Refuge which includes the Cape Newenham National Wildlife Refuge. ANILCA lists the purposes for which Togiak Refuge was established and is managed, which are to conserve fish and wildlife populations and habitats in their natural diversity; to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats; to provide the opportunity for continued subsistence uses by local residents; and to ensure water quality and necessary water quantity within the refuge. Section 304(g) of ANILCA directs the Service to prepare comprehensive plans for all refuges and to revise them "from time to time."

The National Wildlife Refuge System Improvement Act of 1997, which amended the Refuge Administration Act, also includes requirements for system wide refuge planning. Should any provisions of the Refuge Administration Act conflict with the provisions of ANILCA, the provisions of ANILCA shall prevail for refuges in Alaska. Plans identify and describe: the populations and habitats of the fish and wildlife resources of the refuge; the special values of the refuge, as well as any other archeological, cultural, ecological, geological, historical, paleontological, scenic, or wilderness value of the refuge; areas of the refuge that are suitable for use as administrative sites or visitor facilities, or for visitor services; present and potential requirements for access; and significant problems which may adversely affect the populations and habitats of fish and wildlife. The plans designate areas within the Refuge according to their respective resources and values; specify programs for conserving fish and wildlife and maintaining the special values of the Refuge; specify uses which may be compatible with the major purposes of the Refuge; and identify opportunities to be provided for fish and wildlife-oriented recreation, ecological research, environmental education and interpretation of Refuge resources and values, if they are compatible with the purposes of the Refuge.

The Togiak comprehensive plan was completed in 1987. Much of the management direction in the comprehensive plan is now out of date due to changes in laws, regulations, and circumstances. In 1991 the Service completed a public use management plan which provided additional guidance for management of public use along popular sport fishing rivers. In 1997 the Refuge began to revise the public use management plan to address increasing public use of the Refuge. The Service has decided to combine the comprehensive plan and the public use management plan and prepare one revised comprehensive conservation plan and environmental impact statement for the Refuge.

This notice formally begins the revision of the comprehensive plan for the Togiak National Wildlife Refuge. In addition to soliciting public comments through this notice, public comments on issues to be addressed in the revision will be solicited through newsletters and other mailings. The comprehensive plan revision will be discussed during community meetings in Togiak, Quinhagak, Goodnews, Platinum, Manokotak, Aleknagik, Clark's Point, Dillingham and Anchorage, AK between April and November 1999. Once issues are identified, the Service will identify options to address the issues and prepare a draft comprehensive plan and draft environmental impact statement. This document is scheduled to be released for public review in the fall of 2000. After public review and comment on the draft plan and environmental impact statement, including public meetings, a final plan and environmental impact statement will be prepared and released.

In preparing and revising the plan, the Service will consult with appropriate State agencies and Native corporations and will hold public meetings to ensure that residents of local villages and political subdivisions of the State which are most affected by administration of the Refuge have the opportunity to present their views on the plan revisions. Before adopting a plan, The Service will publish a notice in the Federal Register and will provide an opportunity for public views and comment.

Electronic Access: Interested persons may submit comments and data by electronic mail (E-mail) to: Maggie_Arend@fws.gov. Submit electronic comments as an ASCII file avoiding the use of special characters and any form of encryption. WordPerfect Version 8 or compatible file formats are acceptable.

David B. Allen,
Regional Director.

[FR Doc. 99-12850 Filed 5-12-99; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[UT-020-09-1060-00]

Pony Express Resource Management Plan, Utah

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of intent to prepare a plan amendment to the Pony Express Resource Management Plan (RMP).

SUMMARY: The Bureau of Land Management (BLM), Salt Lake Field Office, Utah is preparing an Environmental Assessment (EA) to consider a proposed amendment to the Pony Express RMP which would establish the appropriate management level (AML) and forage allocation for two wild horse herd areas (HA), Cedar Mountain and Onaqui Mountain. Forage allocation adjustments shall take into consideration the needs of wildlife and livestock.

DATES: The comment period for identification of issues for the proposed plan amendment will commence with the date of publication of this notice. Comments must be submitted on or before June 14, 1999.

ADDRESSES: Comments on the proposed plan amendment should be sent to Bureau of Land Management, Salt Lake Field Office, 2370 South 2300 West, Salt Lake City, Utah 84119.

FOR FURTHER INFORMATION CONTACT: Alice Stephenson, Land Use Planner, Bureau of Land Management, telephone (801) 977-4317. Existing planning documents and information are available at the above address or telephone number.

SUPPLEMENTARY INFORMATION: The Pony Express RMP, approved January 12, 1990, Wild Horse Decision No. 1 set the herd sizes at: Cedar Mountain HA at 65 animals (1,020 AUMs) and Onaqui Mountain HA at 45 animals (590 AUMs). Since then, the HAs have been evaluated to determine the potential carrying capacity for wild horses. Preliminary issues include livestock grazing, wilderness study areas, off-highway vehicles, vegetation, water, and riparian. Public participation is being sought at this initial stage in the planning process to ensure the RMP

HUD/HS–15

SYSTEM NAME:

Single Family Data Warehouse System (D64A).

SYSTEM LOCATION:

Headquarters and Single Family Homeownership Centers in Atlanta, Denver, Philadelphia, and Santa Ana.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Individuals who have obtained a mortgage insured under HUD/FHA's single family mortgage insurance programs, individuals who assumed such a mortgage, and individuals involved in appraising or underwriting the mortgage.

CATEGORIES OF RECORDS IN THE SYSTEM:

Automated files contain name, address, and social security number; racial/ethnic background, if disclosed, on mortgagors; identifying numbers on individuals involved in processing the loan; and data regarding currently and formerly insured mortgages. The loan data includes underwriting data, such as loan-to-value ratios and credit ratios; original terms, such as mortgage amount, interest rate, term in months; status of the mortgage insurance; and history of payment defaults, if any.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Sec. 203, National Housing Act, Pub. L. 73–479.

PURPOSE:

This information aids HUD/FHA's monitoring of the single family mortgage insurance programs; it brings together data regarding the mortgage, its performance and parties involved, which facilitates research and analysis.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act other routine uses include:

(a) To the FBI to investigate possible fraud revealed in underwriting, insuring or monitoring.

(b) To Department of Justice for prosecution of fraud revealed in underwriting, insuring or monitoring.

(c) To General Accounting Office (GAO) for audit purposes.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Records are stored on magnetic tape/disc/drum.

RETRIEVABILITY:

Records are retrieved by name, social security number or other identification number, case number, property address, or any other type of stored data.

SAFEGUARDS:

Automated records are maintained in secured areas. Access is limited to authorized personnel.

RETENTION AND DISPOSAL:

Computerized records of insured cases are retained for at least 10 years beyond maturity, prepayment, or claim termination.

SYSTEM MANAGER(S) AND ADDRESS:

Director, Field Management, Office of the Deputy Assistant Secretary for Single Family Housing, HU, Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410.

NOTIFICATION PROCEDURE:

For information, assistance, or inquiry about existence of records, contact the Privacy Act Officer at the appropriate location in accordance with 24 CFR part 16. A list of all locations is given in appendix A.

RECORD ACCESS PROCEDURES:

The Department's rules for providing access to records to the individual concerned appear in 24 CFR part 16. If additional information or assistance is required, contact the Privacy Act Officer at the appropriate location. A list of all locations is given in appendix A.

CONTESTING RECORD PROCEDURES:

The Department's rules for contesting the contents of records and appealing initial denials, by the individual concerned, appear in 24 CFR part 16. If additional information or assistance is needed, it may be obtained by contacting: (I) In relation to contesting contents of records, the Privacy Act Officer at the appropriate location. A list of all locations is given in appendix A; (II) In relation to appeals of initial denials, the HUD Departmental Privacy Appeals Officer, Office of General Counsel, Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410.

RECORD SOURCE CATEGORIES:

Mortgagors, appraisers, mortgagee staff underwriters, and HUD employees—indirectly, immediate source is the operational system that captures the data (CHUMS, SFIS, SF Claims, SF Default Monitoring System).

[FR Doc. 99–18882 Filed 7–22–99; 8:45 am]

BILLING CODE 4210–01–M

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[UT–020–09–1050–00]

Notice of Intent; Correction

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Intent; correction.

SUMMARY: The Bureau of Land Management (BLM), Salt Lake Field Office, Utah published in the May 13, 1999 issue of the Federal Register a notice of intent to prepare a plan amendment to the Pony Express Resource Management Plan (RMP). The notice omitted that a review of the wild horse herd areas may result in boundary changes.

FOR FURTHER INFORMATION CONTACT: Alice Stephenson, Environmental Specialist, Salt Lake Field Office, 2370 South 2300 West, Salt Lake City, Utah 84119, (801) 977–4300. Existing planning documents are available at the Salt Lake Field Office.

Correction

The plan amendment and environmental assessment will evaluate the herd areas as of 1971 (Wild Horse and Burro Act passage) and the herd areas as defined in the RMP. Potential additions to the herd areas are: Onaqui Mountain HMA—Davis Mountain, Davis Knolls, and Riverbed; Cedar Mountain HMA—west side of the Cedar Mountains and within Dugway Proving Grounds.

LeRoy R. Turner,

Acting State Director.

[FR Doc. 99–18860 Filed 7–22–99; 8:45 am]

BILLING CODE 4310–DQ–P

DEPARTMENT OF THE INTERIOR

National Park Service

Record of Decision Final Environmental Impact Statement; General Management Plan; New Orleans Jazz National Historical Park, LA

Introduction

The National Park Service (NPS) has written a Final General Management Plan/Environmental Impact Statement (FEIS) for New Orleans Jazz National Historical Park, New Orleans, Louisiana. The FEIS is presented in an abbreviated format. The document must be integrated with the Draft General Management Plan, Environmental Impact Statement, New Orleans Jazz National Historical Park, printed in

Appendix C. Vegetation Utilization Data for the Analysis Area

Percent Utilization for the Cedar Mountain HMA 1991-2001

Year	8 Mile Spring	S. 6 Horse	N. 6 Horse	Brown Spring	W. Brown Spring	8 Mile Seep	Wildcat	N. Cedar	Henry Spring	Black Knolls	Cedar Spring	N. White Rocks	Annual Average
2001 S		18	33	24	21		28	38		42	9	31	27.11111111
2000 S	76	42	58	86	60	66	51	54	68	56	74	56	62.25
1999 F	60	54	58	74	30		32	44	40	37	57	30	46.90909091
1999 S	52	32	50	56	48		50	40		58	62	44	49.2
1998 F	58	34	40	54		62	48		38	67		38	48.77777778
1997 S	58	40	58	48	46		60	54	44	60	50	36	50.36363636
1996 S	54	40	44	68	66	64	60	61	31	54	58	38	53.16666667
1995 F	50	22	29	40	34	60	36	42		44	46	27	39.09090909
1995 S		32	31	42	46		62	31		42	32	30	38.66666667
1994 F		25	36	36	36	54	44	32		38	32	20	35.3
1994 S	58	34	32	42	32	56	56	30		43	29	21	39.36363636
1993 F	34	24	21	34	13	52	41	64		44	18	22	33.36363636
1993 S	74	54	82	90	66		80	90		60	76	60	73.2
1992 F	56	38	63	62	36	36	46	76		40	40	52	49.54545455
1992 S	40	44	80	88	72		90	62		54	86	58	67.4
1991 F	18	24	39	74	51		89	29		30	89	38	48.1

Percent Utilization for the Onaqui Mountain HMA 1992-2000

Year	Delle Canyon	Davis Flat	Onaqui RCA	Onaqui E.	Onaqui W.	Faust Canyon	Hell Hole	Winter Spring	Annual Average
2000 S								45	45
1998 F				50	42				46
1996 S		66	34	18	52				42.5
1995 F			54	46	68	37	16		44.2
1994 F	52			54	13		52		42.75
1993 S	57	50	51	84					60.5
1993 F		18	38	48	32	69	76		46.83333333
1992 S		64	46	70	41				55.25

Appendix D. Average Annual Production Figures for the Analysis Area

Cedar Mountain Area

Map Unit	Soil Component	% of each	Range Site Name	Potential	Production	Lbs/Acre	Total Acres	Avg. Annual
Number	Name	Component		Favorable	Normal	Unfavavorable		ProductLbs/Ac
004	AMTOFT	65	Semidesert Shallow Loam (Utah Juniper-Bluebunch Wheatgrass)	400.00	300.00	200.00	53,570.41	3,482,076.65
005	BERENT	60	Semidesert Sand (Utah Juniper)	900.00	800.00	600.00	5,035.31	302,118.60
005	HIKO PEAK	20	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	1,678.44	33,568.80
011	CHECKETT	75	Semidesert Shallow Loam (Black Sagebrush)	700.00	600.00	400.00	989.09	74,181.75
012	CLIFFDOWN	100	Desert Gravelly Loam (Shadscale)	500.00	400.00	300.00	18,771.06	1,877,106.00
021	HIKO PEAK	100	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	9,854.14	985,414.00
022	HIKO PEAK	100	Semidesert Stony Loam (Black Sagebrush)	700.00	600.00	400.00	370.84	37,084.00
024	HIKO PEAK	45	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	1,157.72	52,097.40
024	TAYLORSFLAT	40	Semidesert Loam (Wyoming Big Sagebrush)	900.00	700.00	500.00	1,029.09	41,163.60
041	MANASSA	100	Semidesert Alkali Loam (Black Greasewood)	800.00	600.00	300.00	2.85	285.00
042	MEDBURN	100	Semidesert Loam (Wyoming Big Sagebrush)	900.00	700.00	500.00	6,197.67	619,767.00
043	MEDBURN	100	Semidesert Alkali Loam (Black Greasewood)	800.00	600.00	300.00	45,505.52	4,550,552.00
048	REYWAT	45	Upland Shallow Loam (Pinyon-Utah Juniper)	700.00	500.00	200.00	2,935.97	132,118.65
048	BROAD	30	Mountain Stony Loam (Antelope Bitterbrush)	1,800.00	1,500.00	900.00	1,957.31	58,719.30
066	TIMPIE	100	Desert Loam (Shadscale)	600.00	500.00	400.00	3,640.63	364,063.00
067	TIMPIE	100	Alkali Flat (Black Greasewood)	1,000.00	700.00	400.00	433.77	43,377.00
069	TOOELE	100	Desert Loam (Shadscale)	600.00	500.00	400.00	56,023.27	5,602,327.00
070	TOOELE	100	Alkali Flat (Black Greasewood)	1,000.00	700.00	300.00	1,726.09	172,609.00
073	YENRAB	100	Desert Sand (Four-wing Saltbush)	800.00	600.00	300.00	1,734.51	173,451.00
074	YENRAB	60	Desert Sand (Four-wing Saltbush)	800.00	600.00	300.00	28.23	1,693.80
074	BADLANDS	25	None	0.00	0.00	0.00	0.00	0.00
075	YENRAB	50	Desert Alkali Sand (Four-wing Saltbush)	700.00	500.00	400.00	407.52	20,376.00
075	TOOELE	35	Alkali Flat (Black Greasewood)	1,000.00	700.00	300.00	203.76	7,131.60
			Average Production for the area	808.70	630.43	386.96	**Total LBS**	18,631,281.15
			AUMs calculated at 800 Lbs of forage/animal/month			TOTAL	AUMS	**23,289.10**
					Desired	**Horse**	**AUMS**	**2,844.00**
					Percentage	**of available**	**AUMS**	**12%**

Onaqui Mountain Area

Map Unit Number	Soil Component Name	% of each Component	Range Site Name	Potential Production Favorable	Normal	Lbs/Acre Unfavorable	Total Acres	Avg. Poor Annual Production Lbs/Ac
002	ABELA	100	Upland Stony Loam (Pinyon-Utah Juniper)	800.00	600.00	400.00	14,956.82	5,982,728.00
004	AMTOFT	65	Semidesert Shallow Loam (Utah Juniper-Bluebunch Wheatgrass)	400.00	300.00	200.00	6,174.63	1,234,926.42
005	BERENT	60	Semidesert Sand (Utah Juniper)	900.00	800.00	600.00	840.34	504,201.24
005	HIKO PEAK	20	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	280.11	140,055.90
006	BIRDOW	100	Loamy Bottom (Basin Wildrye)	2,500.00	1,500.00	1,000.00	1,015.20	1,015,203.00
007	BORVANT	100	Upland Shallow Hardpan (Pinyon-Utah Juniper)	900.00	700.00	400.00	24,359.25	9,743,701.20
011	CHECKETT	75	Semidesert Shallow Loam (Black Sagebrush)	700.00	600.00	400.00	1,181.32	472,528.80
012	CLIFFDOWN	100	Desert Gravelly Loam (Shadscale)	500.00	400.00	300.00	18,501.22	5,550,366.30
015	DOYCE	100	Upland Loam (Basin Big Sagebrush)	1,400.00	1,200.00	700.00	595.85	417,095.00
019	ERDA	100	Upland Loam (Basin Big Sagebrush)	1,400.00	1,200.00	700.00	1,000.92	700,646.80
021	HIKO PEAK	100	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	2,995.09	1,497,546.00
022	HIKO PEAK	100	Semidesert Stony Loam (Black Sagebrush)	700.00	600.00	400.00	1,619.27	647,708.40
023	HIKO PEAK	45	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	200.12	100,061.78
023	CHECKETT	35	Semidesert Shallow Loam (Black Sagebrush)	700.00	600.00	400.00	155.65	62,260.66
024	HIKO PEAK	45	Semidesert Gravelly Loam (Wyoming Big Sagebrush) North	1,000.00	800.00	500.00	11,172.64	5,586,319.35
024	TAYLORSFLAT	40	Semidesert Loam (Wyoming Big Sagebrush)	900.00	700.00	500.00	9,931.23	4,965,617.20
034	KAPOD	100	Upland Gravelly Loam (Mountain Big Sagebrush)	1,000.00	800.00	400.00	610.62	244,248.80
035	KAPOD	100	Upland Stony Loam (Pinyon-Utah Juniper)	800.00	600.00	400.00	11,759.31	4,703,723.60
038	LODAR	40	Upland Shallow Loam (Pinyon-Utah Juniper)	700.00	500.00	200.00	11,190.45	2,238,089.92
038	LUNDY	30	Mountain Shallow Loam (Low Sagebrush)	1,300.00	1,100.00	600.00	8,392.84	5,035,702.32
040	LUNDY	45	Mountain Shallow Loam (Low Sagebrush)	1,300.00	1,100.00	600.00	688.89	413,332.74
040	DATEMAN	25	High Mountain Stony Loam (Conifer)	300.00	200.00	100.00	382.72	38,271.55
041	MANASSA	100	Semidesert Alkali Loam (Black Greasewood)	800.00	600.00	300.00	2,011.80	603,539.40
042	MEDBURN	100	Semidesert Loam (Wyoming Big Sagebrush)	900.00	700.00	500.00	925.83	462,915.00
043	MEDBURN	100	Semidesert Alkali Loam (Black Greasewood)	800.00	600.00	300.00	579.01	173,703.30
047	PODMOR	45	Mountain Stony Loam (Antelope Bitterbrush)	1,800.00	1,500.00	900.00	5,396.92	4,857,228.59
047	ONAQUI	35	Mountain Windswept Ridge	400.00	300.00	200.00	4,197.60	839,520.99
048	REYWAT	45	Upland Shallow Loam (Pinyon-Utah Juniper)	700.00	500.00	200.00	10,845.11	2,169,022.32
048	BROAD	30	Mountain Stony Loam (Antelope Bitterbrush)	1,800.00	1,500.00	900.00	7,230.07	6,507,066.96
062	SPAGER	100	Semidesert Shallow Hardpan (8-10 Ppt)	600.00	400.00	300.00	6,110.85	1,833,253.50
064	TAYLORSFLAT	100	Semidesert Loam (Wyoming Big Sagebrush)	900.00	700.00	500.00	9,565.33	4,782,662.50
065	TAYLORSFLAT	100	Semidesert Alkali Loam (Black Greasewood)	800.00	600.00	300.00	1,158.95	347,685.60
066	TIMPIE	100	Desert Loam (Shadscale)	600.00	500.00	400.00	14,701.69	5,880,675.60
067	TIMPIE	100	Alkali Flat (Black Greasewood)	1,000.00	700.00	400.00	492.77	197,108.80
069	TOOELE	100	Desert Loam (Shadscale)	600.00	500.00	400.00	17,188.05	6,875,220.40
070	TOOELE	100	Alkali Flat (Black Greasewood)	1,000.00	700.00	300.00	175.65	52,694.10
073	YENRAB	100	Desert Sand (Four-wing Saltbush)	800.00	600.00	300.00	235.80	70,738.50

074	YENRAB	50	Desert Sand (Four-wing Saltbush)	800.00	600.00	300.00	0.97	291.00
			Average Production for the Area	934.21	728.95	442.11	**Total Lbs**	**86,947,661.53**
			AUMs Calculated at 800 LBS of Forage/animal/month			**Total AUMs**		**108,684.58**
						Desired AUMs	**Horse AUMs**	**1908**
						% of avilable AUMS		**0.017555389**

Appendix E. Wild Horse Habitat and Environmental Condition Contingency Plan

Wild Horse Habitat and Environment Condition Contingency Plan.

PURPOSE

The purpose of this document is to develop a plan of operation to coincide with environmental conditions in the wild horse areas in the Salt Lake City Field Office of the BLM.

NEED

There are several factors which might have impacts to the environment of the Herd Management Areas (HMAs) including but not limited to: Fire, Drought, Disease, Hazardous Waste Spills, etc. The Wild Horse and Burro Protection Act mandates that the BLM manage the Wild Horse population in a manner to maintain a thriving ecological balance. Consequently it is necessary to develop this plan to be able to meet the fluctuating conditions of the environment.

AFFECTED ENVIRONMENT

The Cedar Mountains are located approximately 50 air miles West of Salt Lake City. The Mountains extend south from I-80 in a North-South orientation to Dugway, Utah, a distance of 40 miles. The area typically inhabited by the wild horses extends from Hastings Pass South to the end of the mountains and from the flats of Skull valley West over the Cedar Mountains and extending out into the sand dunes on the West side of the mountains. The current population of wild horses is estimated to be 500 animals based upon the aerial survey conducted during March of 2001 and the expected foaling rate of nearly 20 percent. The intention is to manage the populations for an average of 270 animals. This number is based upon the available forage in the area. The lands contained in this area are mainly composed of federally managed lands with approximately 6,000 acres of private lands included. Most of the area in this mountain range is contained within a Wilderness Study Area, and is of a somewhat primitive nature with limited road access.

The Onaqui Mountains are Located on the East side of Skull Valley approximately 35 miles West-Southwest of Salt Lake City and extend from Johnson Pass on the North, Southward. The wild horse area extends from Johnson Pass on the north and follows the Old Pony Express Route south into the Simpson Mountains. The eastern range of the horses may extend east from the crest of the Onaqui Mountains to state rod 36, but more typically is closer to the mountains. On the western side, the area is bounded by the Boundary fence of Dugway Proving Grounds. The current population of horses is estimated to be approximately 180 animals based upon field observations this spring and an expected foaling rate of about 10 percent. This population of horses is o be managed for an average of 85 animals.

In both mountain ranges there are various perennial water sources, primarily springs, which under normal water conditions provide adequate water to support the intended populations with sufficient excess water to support occasional numbers of animals in excess of the desired levels.

ENVIRONMENTAL CONDITION STAGES

In order to better manage the populations of horses during environmental condition changes, a division of stages of environmental conditions with predetermined management actions will be created with this

document. Proposed is a division into four environmental stages, with stage one being conditions normal, and stage four being a condition where horse and other animal life are in eminent danger.

Stage one:

Under stage one, sources of water and forage are more than adequate to support the desired level of horses in the area, and the natural associated wildlife of the area. Management will be limited to observation and roundups will be limited to a four-year schedule as determined by the National Program and the Herd Area Management plans currently under development.

Stage two:

In stage two, sources of either water or forage begin to be limited due to some environmental causative factor such as drought or fire. Management under stage two will consist of more intensive monitoring of spring sources and forage conditions. If populations of wild horses are above the prescribed levels, roundups of wild horse to remove excess animals will be considered even if not scheduled for the current year.

Stage three:

Sources of either water or forage are being significantly limited as a result of some environmental factor such as drought, fire, insects, or disease. Management under stage three will consist of proactive measures. These proactive measures may include, but are not limited to: 1. Trucking of water to reinforce spring output during drought conditions 2. Emergency gathering of horses to reduce numbers to suit available resources. This will be done regardless of the position in the gathering rotation.

Stage four:

Available water or forage has been reduced to levels where the continued existence of any horses in the area is not probable. When resources reach this level, horses will be removed from the area. Horse will not be permanently removed from the area, simply moved to a temporary holding facility where adequate food and water can be provided until natural replenishment will allow the return of horses to their natural ranges.