United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Tonopah Field Station
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In Reply Refer To:
NV-065-EA07-028
4700
(NV065.08)
DEC 15 2006

CERTIFIED MAIL NO.
RETURN RECEIPT REQUESTED

Dear Interested Party:

Enclosed for your review and information is a copy of the Stone Cabin Complex Wild Horse Gather Plan and Environmental Assessment (EA # NV065-EA07-028) prepared by the Bureau of Land Management (BLM) in Tonopah, Nevada. The Stone Cabin Complex area encompasses the Stone Cabin, Saulsbury, and Reveille Herd Management Areas (HMAs). The EA analyzes the direct, indirect, and cumulative impacts associated with the proposed gather of excess wild horses on public land managed by the BLM.

If you have any comments on the EA, please send them, in writing, to the above address. Or if you prefer, you may fax your comments to Andrea Felton, at 775-482-7810, or hand deliver them to the Tonopah Field Station at 1553 South Main Street in Tonopah, Nevada. Any comments received by 4:30 p.m., January 16, 2007, will be considered in preparation of the final EA. If you have any questions, or would like additional information, please contact Andrea Felton, Tonopah Field Station Wild Horse and Burro Specialist at 775-482-7847.

Sincerely,

William S. Fisher
Assistant Field Manager, Tonopah

Enclosure:
Stone Cabin Complex Wild Horse Gather Plan and Environmental Assessment

United States Department of the Interior
Bureau of Land Management
Battle Mountain District

January, 2007

Tonopah Field Station
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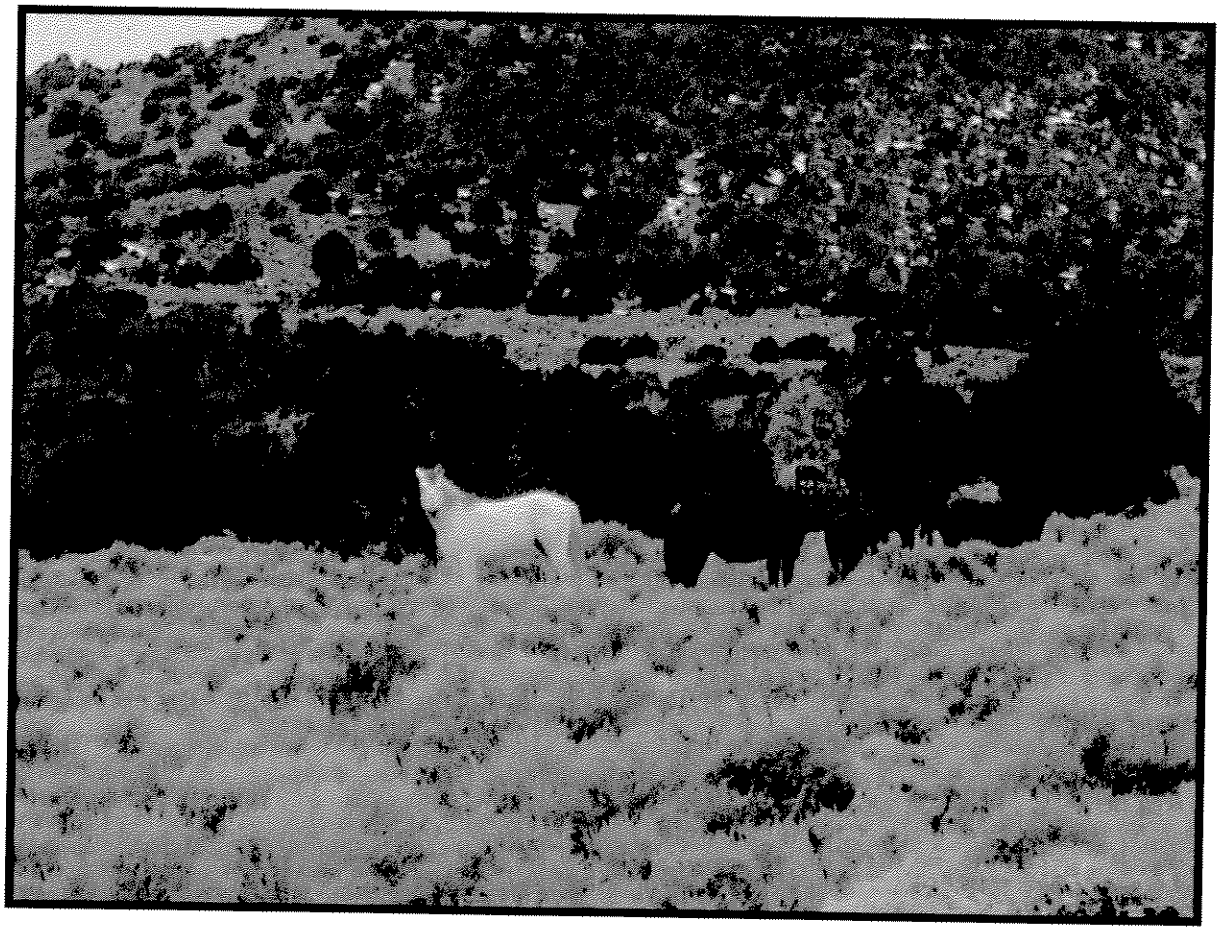
Tonopah, NV 89049

Battle Mountain Field Office
50 Bastian Road
Battle Mountain, NV 89820

Stone Cabin Complex Wild Horse Gather Environmental Assessment NV065-EA07-028



Horses in the Stone Cabin HMA, Spring 2006

STONE CABIN COMPLEX WILD HORSE GATHER PLAN ENVIRONMENTAL ASSESSMENT NV065-EA07-028

1. BACKGROUND INFORMATION

The purpose of this Environmental Assessment (EA) is to evaluate the impacts associated with completion of a wild horse gather within the Stone Cabin Complex to achieve the Appropriate Management Level (AML) and restore a thriving natural ecological balance to the range. Moreover, this EA has been prepared to analyze the environmental effects of potential population control methods in order to achieve and maintain the established AMLs for the Stone Cabin HMA and prevent further deterioration of the range as a result of the current overpopulation of wild horses. This EA contains site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action, and ensures compliance with the National Environmental Policy Act (NEPA).

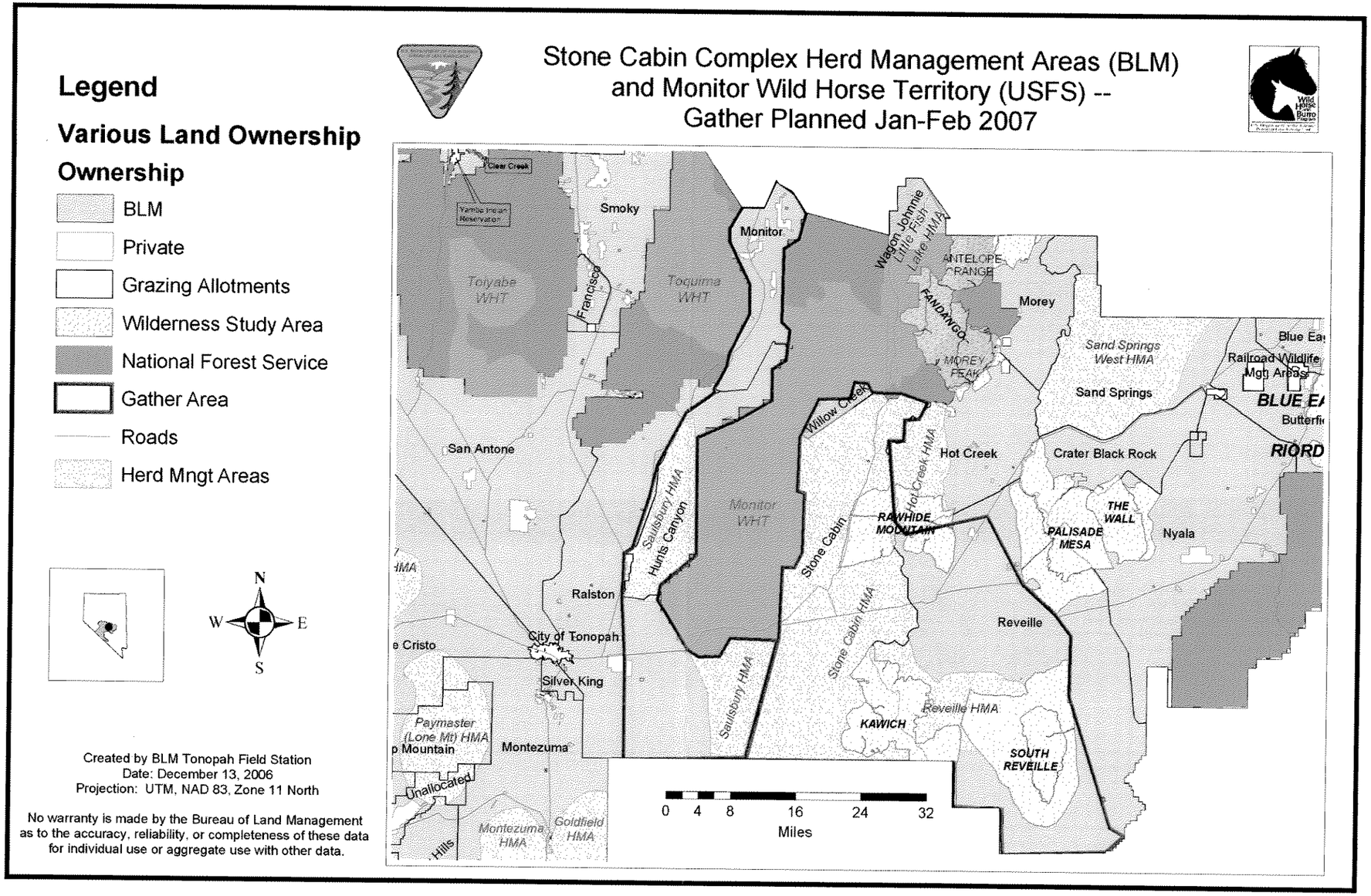
1.1. Description of the proposed gather area

The Stone Cabin Complex is located in Nye County within central Nevada. The proposed gather area encompasses approximately 1,227,000 acres of public land and includes areas within and outside of BLM herd management areas (HMAs). The gather area is located east of Tonopah, Nevada, and encompasses an area approximately 60 miles long and 50 miles wide. Few physical boundaries, including fences, exist between the HMAs to restrict regular interchange and movement; therefore the area is managed as a Complex.

The Stone Cabin Complex is comprised of the Saulsbury, Stone Cabin, and Reveille HMAs, and areas outside these HMAs in which horses are known to reside. These areas fall within the jurisdictional boundaries of the BLM Tonopah Field Station (TFS). The Nellis Air Force Base Test Range serves as the southern boundary of the gather area, and the jurisdictional line between the Tonopah Field Station and Battle Mountain Field Office serves as the northern boundary.

Refer to Map 1, page 2, for HMA boundaries, livestock grazing allotments and the proposed gather area. Refer to Section 3.6 for more details of the gather area.

Map 1. Gather Area for the Stone Cabin Complex.



1.2. Appropriate Management Level (AML)

Appropriate Management Levels for the BLM HMAs within the Complex have been established through court orders/stipulated agreement,the *Tonopah Resource Management Plan and Record of Decision* dated October 6, 1997, (page A-23 Appendix 8B, Wild Horses and Burros by Allotment), or Final Multiple Use Decisions (FMUDs) issued following interdisciplinary evaluation of monitoring data and consultation with the interested public. The AMLs established through FMUDs were determined to be the level of use by wild horses, which would provide for a thriving natural ecological balance and prevent deterioration of the range. The existing AMLs will be re-evaluated in future years through Rangeland Health Assessments as additional monitoring data becomes available. Appropriate adjustments would be made following consultation with the interested public to ensure that a thriving natural ecological balance is maintained within the Complex. Monitoring data and other available information does not indicate that the current AMLs need adjustment.

Table 1 displays the AML for each HMA. Population estimates are based upon the most recent census of the Complex, conducted in January 2006. Population estimates are based upon a January 2006 census flight of the Complex. Historically, there has been an average annual recruitment rate across the Complex of about 16%. However, over the last 2 years, an above-average rainfall (average +2.28 inches across the Stone Cabin Complex area) has produced more forage, thus increasing the average recruitment rate to 23.5%, based upon the January 2006 census flight. Therefore, the foaling estimate stated in the table is an average of 20% rate of increase.

Table 1. Established Appropriate Management Levels (AMLs) and Estimated Wild Horse Populations.

Tonopah Field Station -- Wild Horse Population Estimates -- Effective April, 2006						
HMA Name	**Allotment Name**	**AML**	**AML Date**	**2006-2007 Population Estimate**		**Last Gather Mo/Yr**
				Census (Jan 2006)	**Jan2007[a]**	
Stone Cabin	Stone Cabin	364	1992 (Court Order)	350	420	Nov 1998
	Willow Creek	54 AUMs (5 AML)	USFS admin			
Reveille	Reveille	138	2001	78 Inside 41Outside	94 49	Nov 2001
Saulsbury	Hunts Canyon	30	1992	194	233	Feb 1997
	Ralston	10	1992	21	25	
Total for Complex		***547***		***684***	***821***	

[a] Based upon 20% recruitment rate as described in previous paragraph.

The AMLs for the Stone Cabin HMA, and a portion of the Saulsbury HMA were established through stipulated agreement (Consent Decision) between BLM, E. Wayne Hage, Colvin and Son Cattle Co., and Russell Ranches through the Department of the Interior Office of Hearings and Appeals, Hearings Division. The Consent Decision signed by Administrative Law Judge David Torbet on May 11, 1992, stated in part:

> "The following numbers of wild and free-roaming horses are the maximum numbers that permit a thriving ecological balance of the uses and resources upon the following allotment(s):"

Allotment	Maximum No. of Horses
Stone Cabin	364
Ralston (Saulsbury HMA)	10

The AML for the Reveille HMA was originally established as 145-165 wild horses through a 1987 court settlement (*Fallini vs. Hodel,* U.S. District Court Judge Bruce R. Thompson presiding). This AML range was further analyzed in the *Final Multiple Use Decision for the Reveille Allotment* (2001), and was reduced to an AML of 138 horses.

1.3 Purpose and Need for Action

Census data and field monitoring indicates that an overpopulation of wild horses exists throughout the Complex. Vegetation and population monitoring in relation to use by wild horses in the Stone Cabin Complex indicates that current wild horse population levels are exceeding the range's capacity to sustain wild horse numbers over the long term. Resource damage is occurring in many areas and is likely to continue to occur without immediate action.

Currently the wild horse population within the Complex is approximately 150% of the established AMLs, with Saulsbury HMA alone at 645% of AML. Therefore, it has been determined that an excess population of wild horses exists within the Complex. The proposed gather is needed to remove the excess animals from range in order to achieve a thriving natural ecological balance between wild horse populations, livestock, wildlife, rangeland vegetation, and water availability, and protect the range from further degradation by excess wild horses. Section 3 (b) (2) of the Wild Free-Roaming Horses and Burros Act (PL 92-195), as amended, states, "Where the Secretary determines . . .that an overpopulation exists on a given area of the public lands and that action is necessary to remove excess animals, he shall immediately remove excess animals from the range so as to achieve appropriate management levels." The requirement for the authorized officer to remove excess animals immediately is also included in 43 CFR (Code of Federal Regulations) 4720.1.

The Interior Board of Land Appeals stated, "We interpret the term AML . . . to mean that 'optimum number' of wild horses which results in a thriving natural ecological balance (TNEB) and avoids a deterioration of the range" (109 IBLA 119 API 1989). Furthermore, 43 CFR 4710.4 states, "Management of wild horses and burros shall be at the *minimum* level necessary to attain the objectives identified in approved land use plans." (emphasis added).

The BLM attempts to meet these objectives by developing a minimum number of horses that can remain on the range following a wild horse gather in order to allow for an anticipated four-year gather cycle and prevent the population from exceeding the established AML between gathers.

In recent situations, the BLM has established AML "ranges," where the lower number in the range represents the number of animals to remain in the Complex following a wild horse gather in order to allow for reasonable gather cycle, and prevent the population from exceeding the established AML between gathers. In order to ensure that the established AMLs are not exceeded between wild horse gathers, the HMAs within the Complex need to be gathered to a level below the AML. Gathering only to the AML would result in the AML being exceeded following the next foaling season (spring 2007) and would result in the need to follow up with another gather within one year, and could result in overutilization of vegetation resources and damage to the rangeland. In the case of the Stone Cabin and Saulsbury HMAs, allowing the population to exceed the AML would violate the 1992 Consent Decision, which established the AML.

Removing horses and implementing population control techniques as identified in the Proposed Action, would slow the growth rates within the Stone Cabin Complex and increase the time before another gather is required. As a result, wild horses would be disturbed by gather activities less frequently, and resource objectives may be achieved more quickly. Furthermore, it is necessary to remove wild horses from areas not designated for horse use.

1.4. Conformance with Existing Land Use Plans

The Proposed Action is in conformance with the Wild Horse and Burro Objectives of the Tonopah Resource Management Plan (RMP) Record of Decision dated 1997 (page A-23 Appendix 8B, Wild Horses and Burros by Allotment). Pertinent excerpts from that document are as follows:

Objective: To manage wild horse and /or burro populations within Herd Management Areas at levels which will preserve and maintain a thriving natural ecological balance consistent with other multiple-use objectives.

- Manage wild horses and/or burros at appropriate management level (AML) for each HMA… Future herd size or AML within each HMA will be adjusted as determined through short-term and long-term monitoring data methods as outlined in the *Nevada Rangeland Monitoring Handbook* and BLM Technical References.
- When the AML is exceeded, remove excess wild horses and/or wild burros to a point which may allow up to three years of population increase before again reaching the AML.

1.5. Relationship to Statutes, Regulations, Policy, Plans or Other Environmental Analysis

The Proposed Action is in conformance with the Wild Free-Roaming Horses and Burros Act of 1971 (Public Law 92-195, as amended), and the Code of Federal Regulations (CFR) at 43 CFR §4700 and policies, as follows:

- 43 CFR 4700.0-6 (a): *Wild horses and burros shall be managed as self-sustaining populations of healthy animals and in balance with other uses and the productive capacity of their habitat.*
- 43 CFR 4710.4: *Management of wild horses and burros shall be at the minimum level necessary to attain the objectives identified in approved land use plans.*
- 43 CFR 4720.1: *Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exist, the authorized officer shall remove the animals immediately.*

Public lands are also managed under the Federal Land Policy and Management Act of 1976 (FLPMA). The FLPMA emphasizes that the public lands are to be managed to protect the quality of scenic, ecological, environmental, and archeological values; to preserve and protect public lands in their natural condition; to provide feed and habitat for wildlife and livestock; and to provide for outdoor recreation. The FLPMA further stresses harmonious and coordinated management of the resources without permanent impairment of the environment. The proposed action and action alternatives are in conformance with Section 302 (b) of FLPMA.

The Proposed Action and other action alternatives are in conformance with the Mojave/Southern Great Basin Resource Advisory Council (RAC) Rangeland Health Standards and Guidelines which require BLM to manage wild horses and burros within AML and in balance with other uses:

- Guideline 4.1: *"Wild horses and burro population levels in HMAs should not exceed AML."*
- Guideline 4.2: *". . .management levels will not conflict with achieving or maintaining standards for soils, ecological components, or diversity of habitat or biota."*
- Guideline 4.3: *"Interaction with herds should be minimized. Intrusive gathers should remove sufficient numbers of animals to ensure a period between gathers that reflects national wild horse and burro management strategies."*

The Proposed Action of attaining AML is consistent with the Standards and Guidelines for Rangeland Health as developed by the Northeastern Great Basin and Mojave/Southern Great Basin Area RACs, Management Guidelines for Sage Grouse and Sagebrush Ecosystems In Nevada (BLM, 2000), Guidelines to Manage Sage Grouse Populations and Their Habitats (Connelly et. al. 2000), also known as the Western Association of Fish and Wildlife Agencies (WAFAWA) Guidelines for Sage Grouse Management

1.6. Scoping and Issue Identification

A scoping letter was mailed to 16 interested individuals, groups and agencies on May 3, 2006 requesting any comments or recommendations regarding the proposal to remove excess wild horses from the Stone Cabin Complex. The following are responses to the scoping letter or issues identified from other correspondence or meetings.

- Bradford Hardenbrook, Supervisory Biologist with the Nevada Department of Wildlife responded that NDOW supports the gathers and the established AMLs for each HMA.

- Dawn Lappin, with the Wild Horse Organized Assistance (WHOA), agrees that management of the horse populations is necessary for healthy herds and rangeland.
- Roy Clifford of the Stone Cabin Partnership states concern that horses have starved to death in the fenced-off Willow Creek Allotment because of lack of forage during an unusually heavy snow fall. "The Stone Cabin Ranch strongly urges the BLM not to allow any horses on Willow Creek (Allotment) for this reason."
- Larry Schutte, Ranch Manager for Colvin and Son L.L.C., has written formal letters expressing the urgent need to gather horses from the Complex because of deterioration of the rangeland resources.

In summary, the evaluation process and consultation with the interested public have identified the following issues:

- The current population of wild horses exceeds the established AMLs in Saulsbury and Stone Cabin HMAs, and many horses are residing outside of the Reveille HMA. Excess animals need to be removed to prevent damage to rangeland vegetation and riparian areas within the Complex;
- Distribution within the HMAs is not uniform, and concentrations of wild horses exist in certain areas. There has also been emigration and re-distribution of horses across the Complex after recent gathers. Horses have been sighted in areas where none or few have been seen before
- U.S. Highway 6 is not fenced within the Stone Cabin HMA and Monitor WHT, resulting in wild horses being hit by vehicles on the highway.
- In winter, many (if not most) horses from the Monitor WHT (USFS) move westward down into the Saulsbury HMA (Hunts Canyon Allotment), which is fenced on the west and south. These high-density horse populations and are causing noticeable over-utilization of rangeland resources because they are unable to disperse further;
- Some horses move into the Willow Creek Allotment during winter months, which is fenced to the east. In severe winter conditions, horses have died in this area due to inadequate forage availability.
- There is a history of prevalence of club foot in Stone Cabin HMA and the neighboring Nellis Wild Horse Range. Club-footed horses were gathered in nearby Paymaster HMA in October 2006. There is potential for capturing club-footed horses

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

The Proposed Action and Alternatives 1, 2, and 3 were developed to remove excess animals from the Stone Cabin Complex so as not to exceed the AML of 547 wild horses prior to the next gather in order to prevent further deterioration to the range and ensure the long-term success of the Complex. Population control methods will be analyzed to assess the effectiveness of slowing population growth. The No Action Alternative is in violation of the Wild Free-Roaming Horses and Burros Act, of 1971 (PL-195, as amended) and is not in conformance with BLM wild horse and burro management requirements contained in 43 CFR §4700. However, it is provided as a basis for comparison with the action alternatives.

The following section details the Proposed Action and Alternatives that will be analyzed in this EA, as well as alternatives considered but not carried forward for analysis. The following Alternatives will be analyzed:

2.1. Proposed Action:

Reveille HMA:

- Remove all horses from outside of the boundaries of the Reveille HMA (see Map 1, pg. 2). Gather within the HMA boundaries if necessary to achieve a post gather population of approximately 88 wild horses so as not to exceed AML of 138 between horse gathers.

Saulsbury HMA:

- Remove excess wild horses from within and outside of the HMA boundaries (see Map 1), with animals removed from outside HMA boundaries as a priority for removal. Remove horses so as not to exceed the AML of 40 wild horses between wild horse gathers. This would result in a post gather population of approximately 25 wild horses to remain within the Saulsbury HMA.

Stone Cabin HMA:

- Remove excess animals from the Stone Cabin HMA so as not to exceed the AML of 364 wild horses prior to the next scheduled gather. This would result in a post gather population of approximately 181 wild horses. Modify the sex ratio of released animals to favor males (60% stallions, 40% mares). This Alternative would lower the reproductive rates of wild horses in the HMA by manipulating the natural sex ratio and could allow more than 5 years between gathers.

Table 2. Estimated numbers of wild horses to be gathered, removed and/or released in the Stone Cabin Complex, 2007.

HMA/WHT	Jan 2007 Estimated Population	Estimated Number Gathered[a]	Estimate Ungathered[a]	Planned Number Removed	Estimate Released	Post-Gather Population
Stone Cabin HMA	420	399	21	239	160	181
Reveille HMA Inside	94	0	94	0	0	94
Reveille HMA Outside	49	49	0	49		0
Saulsbury HMA	258	245	13	233	12	25
Total	**821**	**693**	**128**	**521**	**172**	**300**

[a] Estimated gather numbers are based on 95% gather efficiency. Actual gather efficiency may be lower due to wild horse behavior, tree cover/terrain, and determinations made by the Contracting Officer's Representative (COR) at the time of the gather.

2.2. Alternatives to the Proposed Action

The gather for the Saulsbury HMA, and Reveille HMA would be conducted the same under the Proposed Action and all action alternatives. The gather of the Stone Cabin HMA differs among alternatives through different population control treatments resulting in differing sex ratios of the post gather population remaining on the range.

Alternative 1:

Reveille and Saulsbury HMAs: same as the Proposed Action.

Stone Cabin HMA:

- Remove excess animals from the Stone Cabin HMA to achieve a post gather population of 181 wild horses. Modify the sex ratio of released wild horses to 40% stallions, 40% mares, and 20% geldings. This Alternative would lower the reproductive rates of wild horses in the HMA by manipulating the natural sex ratio and could allow more than 5 years between gathers.

Alternative 2:

Reveille and Saulsbury HMAs: same as the Proposed Action.

Stone Cabin HMA:

- Remove excess animals from the Stone Cabin HMA to achieve a post gather population of 181 wild horses, with a sex ratio of 50% males and 50% females. Under this alternative, the HMA would be gathered without implementing additional population control techniques. Following the gather, populations would increase at the average estimated rate of 16% until the next scheduled gather in approximately three to four years.

Alternative 3:

Reveille and Saulsbury HMAs: same as the Proposed Action.

Stone Cabin HMA:

- Remove excess animals from the Stone Cabin HMA so as not to exceed the AML of 364 wild horses before the next scheduled gather. Modify the sex ratio of horses released to 50% stallions, 50% mares, and manage an *additional* 20% (or 36 horses) as geldings. This would result in a post gather population of 217 wild horses. In this way, older stallions or stallions with slight deformities that may be otherwise unadoptable if removed would be released back to the range. This alternative would allow more horses to remain on the range, and allow a normal sex ratio among breeding-age animals. However, AML would be exceeded within 3-4 years of the gather, necessitating a maintenance gather.

Alternative 4: No Action Alternative (No wild horse gather)

The No Action Alternative would forego conducting a wild horse gather in the Stone Cabin Complex. Wild horse populations would not be actively managed at this time, although monitoring and census would still take place. The current population of wild horses within the Complex would continue to increase above established AML.

2.3. Actions common to the Proposed Action and Alternative Actions

The Tonopah Field Station proposes to conduct a wild horse gather to achieve Appropriate Management Levels in accordance with this EA and Wild Horse Gather Plan and Standard Operating Procedures. Authorized personnel would gather wild horses into various traps across the Complex in accordance with the Gather Plan and Standard Operating Procedures (SOPs, Appendix A). All horses outside the Reveille HMA boundaries within the Reveille Allotment would be gathered and removed. Wild horses in the Saulsbury HMA (south of the U.S. Highway 6 fence) would be gathered to post gather population of 6-10 animals. Wild horses in the Saulsbury (north) HMA would be gathered to a post-gather population of 15-19 horses, with a natural age and sex ratio of 50 mares:50 stallions.

The objective for the gather would be to achieve a post gather population of the Complex of approximately 300 wild horses, ensuring a genetically viable population would exist within the Complex. Additionally, the population would likely not exceed the established AML (547 wild horses) for approximately four years, in which a maintenance gather would occur based on funding, population growth and site-specific qualifiers.

- Helicopter census flight for the entire Complex would be conducted prior to the gather to obtain up-to-date population estimates and distribution of the wild horses.
- Gather operations would be conducted in accordance with the Gather Plan and Standard Operating Procedures (SOPs, Appendix A). Multiple capture sites (traps) would be used to capture wild horses within the Complex. Whenever possible, capture sites would be located in previously disturbed areas. The gather would be accomplished by helicopter drive trapping and would not occur during peak foaling season (March 1-June 30). The Complex would be gathered in late January and early February, 2007.
- Selection of animals for removal and/or release would also be guided by BLM's *Gather Policy and Selective Removal Criteria for Wild Horses* (Washington Office IM 2005-206).
- Approximately 100 blood samples would be collected for genetic analysis (genetic diversity, historical origins, unique markers, and norms for the population). The samples would be collected from breeding age animals and the data collected would be compared to past and future samples. A veterinarian or other trained personnel would draw blood.
- As a priority, wild horses would be removed from outside of HMA boundaries and from areas where concentrations of wild horses currently exist.
- Horses would not be released into the Willow Creek Allotment.
- Excess wild horses removed from the range would be transported to BLM wild horse and burro facilities to be prepared for the National Wild Horse and Burro Adoption Program or for long-term holding.

Wild horse and burro specialists would endeavor to select animals to be released that are comprised of diverse age groups, while adhering to the National Selective Removal Policy to

the extent possible (refer to Wild Horse Gather Plan, Appendix A). It is anticipated that most wild horses 0-5 years of age would be removed from the HMAs. Many of the mares and stallions ages 6-9 would be released. Older mares and stallions (15-19 years of age and primarily those 20+ years of age) would be released to avoid the stress of transportation and handling. If deemed appropriate, additional older horses may be released if it would be too stressful to ship them, but their condition does not warrant euthanasia.

2.4. Alternatives Considered but Eliminated from Detailed Analysis

2.4.1. Implement Fertility Control on mares selected to be released back into Stone Cabin HMA.

Under this alternative, all mares selected for release into the Stone Cabin HMA would be inoculated with an immunocontraceptive vaccine, Porcine Zona Pellucidae (PZP), for fertility control research. The vaccine would be administered by researchers associated with the National Fertility Control Field Trial Plan, a veterinarian, or trained BLM personnel. Approximately 80 mares inoculated during the winter 2006/07 would foal normally in 2007 (year 1). Reproduction would be decreased in 2008-2010, resuming to normal in 2011.

The efficacy for the application of the two-year PZP vaccine based on winter application is as follows:

Year 1	Year 2	Year 3	Year 4
Normal	94%	82%	68%

This alternative could result in decreased gather frequency and a population of younger, more adoptable horses captured during the next gather. This alternative was analyzed through the WinEquus wild horse population model. The model suggested that, over the course of 5 years, the population growth rate would be lower using the 60:40 sex ratio management technique (Proposed Action) than by using fertility control. Furthermore, fertility control implementation would incur additional costs associated with the vaccine and administration of the vaccine. Furthermore, the cost of fertility control is approximately $300 per mare (inoculation, freeze-branding, extra handling costs). Inoculating the 80 mares selected for release back on to Stone Cabin HMA would cost taxpayers approximately $24,000. After comparing fertility control research with Proposed Action, which incurs no additional costs, this Alternative was eliminated from further analysis. After comparing the potential affects to population growth rates from fertility control research with Proposed Action, which incurs no additional costs, this Alternative was eliminated from further analysis.

2.4.1. Throughout the entire Stone Cabin Complex, remove excess animals to a post-gather population of about 300 horses, manage the adult breeding population in each HMA at 60% males: 40% females, and/or implement fertility control to all release mares.

This alternative would involve manipulation of sex ratios and/or fertility control to all wild horses released in the Complex rather than just the Stone Cabin HMA as identified under the Proposed Action and Alternatives. This alternative was not considered due to the small number of wild horses that would be identified for release onto the Saulsbury HMA. Additionally, January 2005 census results of the Reveille HMA indicates that after removal

of all wild horses from outside of the HMA boundaries is accomplished, that gathering within the HMA may not be necessary to achieve objectives, resulting in no release of wild horses into this HMA. Therefore population control treatment options would not be applicable.

2.4.3. Gather the Stone Cabin Complex to AML

A post-gather population size at AML would result in AML being exceeded following the next foaling season of Spring, 2007. This would be unacceptable several reasons and thus did not receive further consideration in this document.

Resource degradation would occur when wild horse population levels exceed AML. Periodic gathers would be required to maintain the wild horse population at the AML. This would require either removing the annual increase in population each year, (approximately 50 horses), or gathering less frequently and removing larger numbers. Removing only a few horses per year is far less desirable for the following reasons:

- Gathering once a year to remove excess wild horses would be cost prohibitive and could not be accomplished with the numerous HMAs gathered annually in Nevada.
- Annual gathers would have more severe impacts to herd stability and band integrity.
- Frequent gathers make the animals far more difficult to capture and greatly increases the chances for more horses to be injured or killed.
- "We interpret the term AML within the context of the statute to mean to mean that "optimum number of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range" (109 IBLA 119 API 1989).
- The Wild Free Roaming Horse and Burro Act requires that "All management actions shall be at the minimum feasible level."

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Resources listed in the following table, including the fifteen "critical elements" whose review is mandated by law or regulation, have been reviewed for the Proposed Action and Alternatives. Those marked as not affected would not be impacted by Proposed Action, or are not present in the area of the Proposed Action. Discussion of expected impacts to affected resources follows the table. Direct impacts are those that result from the actual gather and removal of wild horses from the Stone Cabin Complex. Indirect impacts are those impacts that occur after the excess animals are removed.

Table 3. Critical Elements of the Human Environment

Critical Element	*No Effect*	*May Affect*	*Resource Present*	*Rationale*
Air Quality		✓	Yes	There would be temporary increased particulate matter during the gather caused by helicopter rotors and horse movement. Dust caused by a concentration of animals at the gather site(s) and at the temporary holding facility would be controlled by watering the areas as needed. Associated traffic would be requested to maintain low speeds to ensure minimum dust levels.
Area of Critical Environmental Concern (ACEC)	✓		No	Resource is not present.
Cultural/Historical		✓	Yes	Discussed in detail below.
Paleontological Resources	✓		No	No known resources are present.
Environmental Justice	✓		No	No minority or low-income groups would be affected disproportionately by health or environmental effects.
Farmlands Prime or Unique	✓		No	Resource is not present
Noxious Weeds/Invasive Non-native Species		✓	Yes	Discussed in detail below.
Native American Religious Issues	✓		No	The TFS has complied with all applicable tribal consultation requirements and no issues were identified. The Timbisha, Yamba, and Duckwater Tribes will be notified of the proposed gather.
Floodplains	✓		No	Resource is not present
Riparian/Wetlands/		✓	Yes	Discussed in detail below.
Threatened and Endangered Flora/Fauna and Special Status Species, Migratory Birds		✓	Yes	Discussed in detail below.
Waste Hazardous/Solid	✓		No	None of the alternatives would result in creation of hazardous wastes.
Water Quality		✓	Yes	Water sources that are unfenced may show slight improvement because of reduced utilization.
Wild & Scenic Rivers	✓		No	Resource is not present.
Wilderness (Study Area)		✓	Yes	Discussed in detail below

Table 4. Checklist of Other Resources to be Considered.

Other Resources	*No Affect*	*May Affect*	*Resource Present*	*Rationale*
Forestry	✓		Yes	Resource present but not affected because no trees would be cut or damaged during the gather.
Grazing Management		✓	Yes	Discussed in detail below
Land Use Authorization	✓		Yes	Project area is located on public land, with no special use authorizations needed. NDOT and Sierra Pacific Power Co. have 400' and 30' rights-of-way along US Highway 6, respectively.
Minerals/Geo-thermal Exploration	✓		Yes	There are no known active exploration projects in the gather area. However, it is advised to avoid the Golden Arrow and other heap leaches, as they may contain toxins.
Recreation	✓		Yes	Resource not affected because this is a temporary action. No off road vehicle races would be run during the gather. Hunters, trappers and campers may be in the area at that time (no big game, small game and birds only during the time of the gather).
Soils	✓		Yes	Soil disturbances would be less than 1 acre in size and trap sites would be located in previously disturbed areas. Except for temporary disturbance at the trap sites, the resource would not be affected.
Vegetation		✓	Yes	Discussed in detail below
Visual Resources	✓		No	No visual impacts would occur because this action is temporary.
Wild Horses and Burros		✓	Yes	Discussed in detail below
Wildlife		✓	Yes	Discussed in detail below

The critical elements and other considered resources that are not present or would not be affected by the Proposed Action or alternatives and will not be further analyzed in this EA.

3.1. Cultural/ Historical

Affected Environment

Evidence indicates human occupation in the Central Great Basin as early as 12,000 years ago. Previous inventories in the area have identified prehistoric sites (lithic scatters, projectile points, etc.). Historic sites associated with ranching and mining are also known to occur in the area. Cultural resources and paleontology are considered within the context of multiple-use. All alternatives are evaluated for their potential impacts to cultural resources, and modifications or mitigation measures are implemented to avoid conflicts.

Environmental Consequences

Proposed Action and Alternatives 1-3:

Neither the Proposed Action, the Action Alternatives, nor the No Action Alternative would directly impact cultural or paleontologic resources. When possible, trap sites would be

located on previously disturbed areas, such as gravel pits, roads, etc.) that have been archaeologically cleared for previous gathers. If cultural resources are encountered, these locations would not be utilized unless they could be modified to avoid impacts. Due to the inherent nature of wild horse gathers, trap sites and holding corrals would be identified just prior to use in the field. As a result, a cultural resource staff member would coordinate with the Wild Horse and Burro personnel to inventory proposed locations as they are identified, and complete required documentation. The BLM would complete Section 106 requirements of the National Historic Preservation Act.

If discoveries of cultural resources potentially eligible for the National Register of Historic Places (NRHP) are made during the implementation of any project, all activities associated with the undertaking, within 100 meters of the discovery, shall be halted and the discovery appropriately protected until the BLM Authorized Officer issues a Notice to Proceed (NTP). A NTP may be issued under the following conditions: 1) potentially eligible resources are evaluated by a qualified BLM archeologist and determined to not be eligible for the NRHP; 2) a site eligible for the NRHP has been recorded, a treatment plan developed, and the fieldwork phase of the treatment option has been completed; 3) a summary description of the fieldwork is performed and a reporting schedule for that work has been accepted.

Indirect impacts of the Proposed Action to cultural and historical sites would include a decreased risk of disturbance to such sites with a decrease in the number of wild horses in the areas. Under the Proposed Action, AML would be maintained for at least 4-5 years, minimizing the potential for impacts to historical or cultural resources through trampling and erosion as a result of an overpopulation of wild horses on the range. Potential impacts to these resources in the Stone Cabin HMA would increase proportionally with the wild horse population size under each Alternative. Refer to Table 6 in Section 3.6 for information related to wild horse population sizes estimated for each alternative.

No Action Alternative (No Wild Horse Gather)
Under the No Action Alternative, impacts to cultural resources by trampling would be expected to continue at current levels or increase as wild horse populations continue to exceed AML and increase annually.

3.2. Grazing Management

Affected Environment

The Stone Cabin Complex includes portions of 5 livestock grazing allotments administered by the Tonopah Field Station within Nye County. Few of these allotments are fenced, allowing wild horses to roam freely between them. Exceptionsinclude: a) a fence along Highway US 6 separating the north and south sections of Saulsbury HMA, b) a fence on the western border of the Hunt's Canyon Allotment (Saulsbury HMA), separating Hunt's Canyon Allotment from Monitor Allotment, c) a fence boundary between Willow Creek Allotment and the Stone Cabin Allotment/HMA, d) a fence dividing Reveille and Stone Cabin allotments, and e) a fence dividing the Stone Cabin HMA and allotment from the south Saulsbury HMA (Ralston allotment). Table 5 lists the associated grazing allotments within each HMA and their permitted season of use and Animal Unit Months (AUMs). Currently

livestock grazing has been at or below permitted levels. Refer to Map 1 on page 2 for allotment and HMA boundaries.

The permits on the Stone Cabin allotment include Colvin and Son L.L.C. and Stone Cabin Partnership. The Hunts Canyon's permit is Stone Cabin Partnership only. The Monitor Allotment is currently vacant. Ralston is vacant except for limited Temporary Non-Renewable use. The grazing permit for the Reveille allotment is ½ Fallini, ½ Fallini Trust.

Table 5. Grazing Use within the Stone Cabin Complex.

Grazing Allotment	Number of Livestock	Season of Use	Permitted Livestock AUMs*
Hunts Canyon	262	Sept 15-June 1	3430
Ralston	131-367 (Currently Temporary Non-Renewable)	Mar 1- May 7	797
Monitor	Vacant	Vacant	Vacant
Stone Cabin (Stone Cabin Partnership)	166	Yearlong	1992
Stone Cabin (Colvin & Son L.L.C.)	2067 20 1500	Mar 1- May 15 May 16- Oct 15 Oct 16-Feb 28	5165 120 6707
Willow Creek	85	June 11- Oct 10	341
Reveille	2440 2100 1801 2440	Mar 1- May 31 Jun1 - Jun 30 July 1 - Nov 30 Dec 1 - Feb 28	7380 2071 9059 7220

*AUM = Animal Unit Month = the amount of forage able to sustain 1 cow/calf combination, or 1 horse, or 2 burros, or 5 sheep for 1 month

Environmental Consequences

Proposed Action and Alternatives 1-3:

Direct impacts: The proposed gather would result in minimal direct impacts to livestock operations within the allotments within the gather area. Noise associated with helicopter operations involved in removing wild horses may temporarily cause some disturbance to livestock. Additional disturbance could occur to livestock as groups of wild horses are herded through the allotments towards trapsites. Livestock owners within the area of impact would be notified prior to the gather, enabling them to take precautions and avoid conflict with livestock.

Indirect impacts of the proposed gather would be improvement and maintenance of rangeland health, particularly the vigor and availability of forage for cattle. Under the Proposed Action, AML would be maintained for at least 4 years, minimizing the potential for over-utilization of rangeland resources by wild horses. Improvement of rangeland resources would occur with the implementation of the Proposed Action or Alternatives 1-3 as wild horse AML is achieved and horses outside the HMAs are removed. Potential improvements to these resources in the Stone Cabin HMA be proportional with the wild horse population size under each Alternative. Refer to Table 6 in Section 3.6 for information related to wild horse population sizes estimated for each alternative.

No Action Alternative (No Wild Horse Gather):
Under the No Action Alternative, wild horse populations would continue to increase beyond established AMLs and exceed the capacity of the habitat to provide adequate forage and water. Uncontrolled increases in wild horse populations would result in heavy use of vegetation resources. This would lead to further degradation of plant communities and key forage species.

3.3. Noxious Weeds, Invasive Non-Native Species

Affected Environment

Invasive weeds typically establish in disturbed and high traffic areas. Any surface disturbance activity can create a potential environment for invasive species. Some invasive plant, noxious weed and pest inventory has been completed throughout the gather area. However, the HMAs within the Complex are considered relatively free of invasive, non-native weeds. Three weed species from the noxious weed list are known to be in the BLM portions of the Stone Cabin Complex. These include Russian knapweed (*Centaurea repens*), hoary cress (*Cardaria draba*) and salt cedar (*Tamarisk chinensis*). Russian knapweed was located at in the Eden Creak area of the Reveille Allotment and HMA and was treated. No other knapweed infestations have been found, but may exist on public land. Hoary cress is known to occur on private land, and possibly public land, in Stone Cabin Valley. Salt Cedar grows at some springs in the Complex. It does not occur outside of riparian areas.

Environmental Consequences

Proposed Action and Alternatives 1-3:
Direct impacts to noxious and invasive species would be the same under both the Proposed Action and Alternatives 1-3 because gather activities would remain unchanged for these alternatives. The proposed wild horse gather could result in the direct spread of existing populations of invasive non-native species. Precautions would be taken prior to setting up trap sites and holding facilities. If noxious weeds are found, an alternate location would be selected. The Contracting Officers Representative (COR), Project Inspector (PI), or other qualified specialist would examine proposed holding facilities and trap sites prior to construction to determine if noxious weeds are present.

Indirect impacts of achieving and maintaining AML within the Complex would involve continued maintenance of healthy populations of native perennial plant species which would minimize the establishment of invasive non-native species. The Proposed Action would

provide an increased opportunity for healthy plant communities and thus provide the lowest potential for invasive non-native species. The opportunity for improvement decreases with increased wild horse population. Refer to Table 6 in Section 3.6 for information related to wild horse population sizes estimated for each alternative.

No Action Alternative (No Wild Horse Gather):
There would be little impact to invasive species from wild horses. Salt cedar is spread by wind rather than animals. Russian knapweed and hoary cress are spread mainly by vehicles. However, the depletion of native grasses by large numbers of grazers could make areas vulnerable to invasion of non-native weed species.

3.4. Vegetation

Affected Environment
Vegetation in the Complex varies from pinyon-juniper woodlands to salt desert shrub. Salt desert shrub vegetation is the dominant vegetation in the Stone Cabin and Ralston Valleys (Stone Cabin, Hunts Canyon and Ralston Allotments). Reveille Valley is dominated by sagebrush and rabbitbrush. The Kawich and Hot Creek ranges (Reveille and Stone Cabin Allotments) are dominated by pinyon-juniper woodlands and sagebrush. Salt brush, sagebrush and pinyon juniper woodlands are the dominant vegetation types in the HMAs.

Precipitation levels vary dramatically in this area. For example, annual precipitation recorded at the Tonopah Airport between 2001 and 2005 ranged from just 1.42 inches in 2002 to 5.96 inches received in 2005. The average annual precipitation for the area is just 5.21 inches. Seven of the past 10 years of precipitation have fallen below this average. In 2002-2003, the area experienced widespread drought and die-off of grasses, even where no livestock had been grazing.

Vegetation condition across the areas managed by BLM is highly variable. Historically, native vegetation communities have been negatively impacted to varying degrees by overpopulations of wild horses and through use by permitted livestock. Through establishment of AMLs, wild horse gathers and adjustments to permitted livestock, improvements in vegetation condition have occurred. However, due to the highly variable levels of rainfall, season to season and year to year, there are severe limitations on the amount of available forage in very dry years. The AMLs have been established at levels which sustain wild horses during the majority of these droughts. When populations of wild horses exceed the AMLs, in conjunction with drought conditions, emergency gathers become necessary to prevent wild horse starvation and preserve vegetation conditions in the gather area.

The limiting factor for wild horse habitat occurs on BLM winter range, particularly in the Hunts Canyon Allotment. The rangeland in this allotment (Saulsbury HMA North) is dominated by galleta grass, which cures out poorly in winter and offers very few nutrients. Wild horses will eat it, but do not gain adequate nutrition. In dry springs, such as 1996, this lack of nutritious forage led to starvation for wild horses and damage to surviving grasses. Additionally, the range is in generally poor condition and has experienced a shrub die-off due

to the 1995-1996 drought. The Stone Cabin HMA has more available forage. However, in 1995-1996 forage became lacking for wild horses in both the Stone Cabin and Saulsbury HMAs, resulting the need for emergency removals in both HMAs.

Environmental Consequences

Proposed Action and Alternatives 1-3:

Direct impacts to vegetation would be the same under the Proposed Action and Alternatives 1-3, and would include minor disturbance (less than one-half acre) to native vegetation immediately in and around temporary trap sites, and facilities used to handle, hold and sort animals. Vegetation could be trampled or crushed by vehicle traffic and hoof action, however, impacts would remain site-specific and isolated in nature. In addition, most trap sites and holding facilities would be selected to enable easy access by vehicles and logistical support equipment and would therefore generally be near or on roads, pullouts, water haul sites or other flat areas that were previously disturbed. By following the SOPs (Appendix A), impacts would be minimized.

Indirect impacts of the proposed gather to vegetation would be the reduction of utilization levels and preservation of existing populations of important key forage species throughout the Complex. As AMLs are achieved and maintained, key forage species would improve in health and vigor and be more likely to set seed and reproduce, which in turn would contribute to improvements in rangeland health. Wild horse grazing during the critical growth season would be reduced, decreasing potential impacts on rangeland vegetation. It is anticipated that few (if any) wild horses would need to be removed from within the Reveille HMA, and as a result, impacts to vegetation would be negligible within this HMA. Impacts on vegetation in Stone Cabin HMA would differ between the Proposed Action and Alternatives 1-3. Improvements in vegetation would continue for a longer period of time with the Proposed Action, but less so with each subsequent Alternative, proportional to the size of the wild horse population over time.

No Action Alternative (No Wild Horse Gather):

The current levels of wild horses are beginning to impact vegetation resources. Under the No Action Alternative, wild horses would continue to increase in population beyond the capacity of the habitat to provide water and forage. Heavy use of vegetation resources by wild horses would continue and increase, resulting in further degradation of plant communities. Reduced production of key forage species would result in reduced forage availability to wildlife, livestock and wild horses.

3.5. Riparian-Wetland Resources

Affected Environment

Riparian-wetland areas are the most productive and valuable resources found on public land. These areas play a significant role in restoring and maintaining the chemical, physical, and biological integrity of the nation's water. Wildlife species use riparian-wetland areas disproportionately more than any other type of habitat. In the Great Basin, approximately 69 different species of wildlife are found within riparian areas. Currently, some of the riparian areas within the Complex are degraded, and livestock, wild horse, and recreational use have been identified as causal factors.

The majority of riparian areas are located outside the gather area within the mountains of the Monitor WHT on Forest Service land. Some springs and streams occur on the eastern side of the Stone Cabin HMA in the Hot Creek and Kawich ranges and water is not a limiting factor throughout most of the area except in the Saulsbury HMA. Monitoring indicates that most of the natural water sources and riparian areas throughout the Complex are in fair to good condition. Some areas have been impacted by excess horses. Such impacts include over-grazing and trampling, which causes loss of riparian vegetation and erosion, particularly in the Kawich range, but these areas will improve after excess horses are removed. Additionally, Nevada Department of Wildlife has expressed concerns over increasing damage to riparian areas due to excess numbers of wild horses in Stone Cabin Valley.

Environmental Consequences

Proposed Action and Alternatives 1-3:

The proposed wild horse gather would not have any direct impacts to riparian or wetland zones within the Stone Cabin Complex because most riparian areas are located outside the gather perimeter. If riparian areas exist within the gather area, trap sites and holding corrals would not be constructed near these riparian areas.

The proposed gather would indirectly impact riparian wetland zones by decreasing utilization and trampling by wild horses in these sensitive areas, thus allowing for riparian wetland areas to improve through natural processes. Moreover, achieving and maintaining AML will relieve some of the grazing pressure from around the springs and riparian waters. Achievement of AML would further ensure that wild horse populations are in balance with the forage and water availability, providing for optimal dispersion of wild horses and reduction of impacts to riparian resources. Maintaining AML would further ensure that short and long-term objectives would be met and would contribute to the improvement of riparian resources.

These improvements would be related to wild horse population size. Implementing the Proposed Action would result in the greatest benefits to riparian areas within the Stone Cabin HMA. Decreased growth rates would decrease competition for water sources and alleviate pressures exerted on riparian habitat due to wild horses congregating around these sensitive areas. Improvements would be less apparent with each subsequent Alternative because populations would increase faster with each Alternative.

No Action Alternative (No Wild Horse Gather):

Wild horse population size would continue to increase in excess of the established AML. Riparian areas would continue to be degraded and other areas may begin to decline. Wildlife species and other users of riparian areas would increasingly suffer from over-use and degradation to this critical resource. Nevada Department of Wildlife has expressed concerns over increasing damage to riparian areas due to excess numbers of wild horses in the Stone Cabin Valley. The No Action Alternative could cause irreparable damage to these critical wildlife habitats.

3.6. Wild Horses

Affected Environment

The Stone Cabin Complex gather area is comprised of the BLM Stone Cabin, Saulsbury, and Reveille Herd Management Areas, and areas outside of HMA boundaries. The total gather area is approximately 1,229,000 acres and is located east of Tonopah, Nevada. The Wild Horse Gather Plan and Standard Operating Procedures (SOPs, Appendix A) provides complete, comprehensive gather procedures.

In the past, the Stone Cabin Complex has experienced wide fluctuations in wild horse numbers. In the first years following the passage of the Wild Free Roaming Horses and Burros Act in 1971, the BLM was able to implement little management, and by 1980, there were more than 2,300 horses roaming throughout the Stone Cabin Complex. In the Reveille Valley alone, horse numbers increased from 470 in 1974 to 1,230 in 1980.

In a long series of gathers, hundreds of wild horses were captured from the Stone Cabin and Reveille HMAs until populations were within carrying capacity of the range. The last wild horse gather conducted in the Stone Cabin HMA was in 1998, Saulsbury HMA in 1997, and in the Reveille HMA in 2001. In 1997 emergency gathers took place in Saulsbury and Stone Cabin HMAs because wild horses were starving due to drought.

Saulsbury HMA

The Saulsbury HMA is over 135,000 acres in size. It is fenced on the western boundary of the Hunts Canyon Allotment, along the southern boundary between the Ralston Allotment and Nellis Air Force Base, and to the east separating the Forest Service's Monitor Range from the Stone Cabin Allotment. Additionally, a fence divides the HMA along U.S. Highway 6. Therefore, movement is somewhat restricted; however, there are some breaks in these fencelines, so some movement does occur between the HMAs. There is no fence between the portion of Saulsbury HMA and the Monitor Wild Horse Territory (WHT) managed by the U.S. Forest Service (USFS), and there is seasonal movement between these areas.

This movement between Saulsbury HMA and the Monitor WHT is vital for adequate forage for the wild horses in the area. Extreme winter conditions or lack of seasonal precipitation has caused documented distribution fluctuations across the Complex that are quite variable from year to year.

The most recent wild horse gather of Saulsbury HMA occurred in 1997 when an emergency removal was necessary to prevent horse starvation. Eighteen mares and 12 stallions were released back onto Saulsbury HMA and represented a normal age, sex and color distribution.

Stone Cabin HMA

The Stone Cabin HMA is approximately 403,000 acres in size. There are very few fences in the area, which allows free movement of horses across the area. There is a fence separating the Willow Creek and Stone Cabin Allotments along the east side of the Monitor Range. In

years with heavy snow accumulations, this fenceline has restricted movement of horses into lower elevations, which has proven fatal to horses caught in the snow with inadequate forage.

In August 1986, the University of Minnesota initiated a fertility control research study in the Stone Cabin HMA. The intent of the research was to evaluate alternative management strategies for controlling the reproductive rate of wild horse populations. The study methodology incorporated implanting 100 mares in peak breeding age with a hormonal drug intended to limit or eliminate reproductive success. These mares were fitted with radio collars to facilitate locating them during the study. The study was terminated in 1990. A gather was conducted in January 1991 in an attempt to capture and remove all study subjects and reduce the wild horse population to AML. The majority of the test horses were removed in that gather and in subsequent gather since then.

Because this action occurred 20 years ago, and test mares have either been removed or have likely died, it is unlikely that there would be any residual effect from that 1986 study. In the unlikely event that a radio-collared mare is captured, the collar would be removed if possible and the mare would be released back onto the range in accordance with the selective removal policy.

The Stone Cabin HMA was gathered in 1997 as a result of extreme drought. A total of 220 horses were gathered and removed from the HMA, leaving a post gather estimated population of 50 wild horses. In November 1998, the HMA was gathered again in a response to a marked increase of wild horses into the HMA. During the gather, 286 wild horses were captured, and 78 returned to the range. In accordance with policy at that time, all of the wild horses returned to the HMA were 10 years of age or older. The sex ratio was 47 mares and 53 stallions. Additionally, 20 stallions from the Stone Cabin HMA, aged 10 and over, were relocated to the Saulsbury HMA south of U.S. Highway 6.

The HMA has not been gathered since 1998; however, population sizes and wild horse movement patterns have likely been influenced by removals that were completed east of the HMA boundaries in the Reveille HMA in 2001, and north of the HMA in the Little Fish Lake WHT in 2005 and 2006.

Because of the age removal selection criteria implemented in the 1998 gather, many of the wild horses captured during the proposed gather would likely be under the age of 8 years, or over the age of 18 years. As a result, few older horses may be encountered, in addition to a notable lack of animals between the ages of 9-17 years of age. Movement of wild horses between the Monitor WHT, Little Fish Lake WHT/HMA and Reveille HMA with the Stone Cabin HMA would have tempered some of the age structure inconsistencies. It is expected that wild horse movement from outside of the Complex would have consisted of a wide range of different age structures.

Reveille HMA

The Reveille HMA abuts the Stone Cabin HMA south of U.S. Highway 6 and west of the State Route 357. It is approximately 104,000 acres in size. According to January 2006 census data, the population within the HMA boundaries is below established appropriate

management level; however, approximately 49 wild horses are currently estimated to reside outside of HMA boundaries within the Reveille Allotment.

Extremely high populations within the Reveille HMA and Allotment during the 1980's resulted in 1987 court settlement (*Fallini vs. Hodel,* U.S. District Court Judge Bruce R. Thompson presiding) that required the BLM to manage for a wild horse population range of 145-165 horses. The 1987 settlement also requires that the BLM gather excess horses within 120 days of a census, and that wild horses be removed from outside of the HMA boundaries first. This AML range was further analyzed in the *Final Multiple Use Decision for the Reveille Allotment* (2001), and was decreased to 138 horses that could be sustained by rangeland resources within the HMA.

In December 1995, 86 horses were gathered and 37 released into Reveille HMA, In 1999, 59 horses were gathered from Reveille, of which 29 over the age of 10 were released back onto the range (41% mares:59% stallions).

During the last gather that was conducted in November, 2001, 107 wild horses were removed from the Reveille Allotment, approximately 19 of which were removed from outside the HMA boundaries. The estimated post gather population was 83 wild horses within the Reveille HMA. During the gather, it was noted that movement between Stone Cabin and Reveille Allotments was occurring, with wild horses moving out of the Reveille HMA west into Stone Cabin Valley during the gather.

Wild Horse Characteristics
The Stone Cabin HMA has a history of distinctive herd characteristics, including horses referred to as the Stone Cabin Grey. These wild horses are born black and over the years, the coat turns from black to grey, and finally to white when the horse reaches approximately 15-20 years of age. The Stone Cabin HMA wild horses frequently intermingle with those in the adjoining HMAs, so it is likely that the Stone Cabin Grey traits exist throughout the entire Complex. Wild horses within the Complex are average to larger size with average conformation. Other coat colors known to exist include bay, gray, sorrel, roan, pinto, and black. The Stone Cabin HMA and Nellis Wild Horse Range herds have a past prevalence of club foot, a genetic defect which results in mild to severe lameness and cannot typically be corrected through trimming. Though most wild horses exhibiting this trait have been removed during past gather activities, it is uncertain the frequency that they would currently occur in the population.

Wild Horse Movement
Wild horse herds from the Saulsbury HMA (north of U.S. Highway 6) and the southern portion of the Monitor WHT exhibit seasonal distribution patterns, moving freely across the area depending on the weather and amount of snowfall. It is likely that wild horses from the Monitor WHT also move into the Stone Cabin HMA as well.

Movement between Reveille HMA and Stone Cabin HMA is common and may be influenced by aircraft, ranching operations or forage and water availability. Some movement

also occurs between the Nellis Test Site and Stone Cabin and Reveille HMAs, even though the Nellis boundary is fenced.

Movement is also known to occur between Little Fish Lake WHT and the northern portion of Stone Cabin Valley, as this area is not fenced. Movement between BLM wild horse HMAs and USFS WHTs occurs from the Nellis Test Site north to U.S. Highway 50 (approximately 125 miles), encompassing the entire Monitor Range and associated valleys. The entire area exceeds several million acres, with an AML of over 1,000 wild horses. For these reasons, there is likely little concern for the current or future genetic health of these populations.

Environmental Consequences

3.6.1. Effects Common to Proposed Action and Alternatives 1-3:

The BLM Tonopah Planning Area has been actively conducting wild horse gathers since the mid 1970's. Over time, methods and procedures have been identified by BLM throughout the western states to minimize stress and impacts to wild horses during implementation of wild horse gathers. The SOPs outlined in Appendix A would be implemented to ensure a safe and humane gather occurred, minimizing potential impacts to wild horses.

Impacts to wild horses under the Proposed Action and Alternatives 1-3 would be both direct and indirect, occurring to individuals, herds within each HMA, and the metapopulation of the Complex as a whole.

Within the Saulsbury HMA, approximately 245 wild horses would be captured and 12 released for a post gather population objective of 25 wild horses. Release wild horses would be chosen to achieve a 50:50 sex ratio between males and females over a diversity of ages. Wild horses exhibiting historic traits, good body condition and above average conformation would be chosen for release into the Saulsbury and Stone Cabin HMAs. The composition of the release horses would differ for the Stone Cabin HMA under each alternative; however, approximately 399 wild horses would be gathered from within the HMA. Between 160 and 180 wild horses could be released back into the HMA, depending upon the specific alternative and the number of animals uncaptured. It is anticipated that few wild horses would need to be gathered and/or removed from within the Reveille HMA.

Individual, direct impacts to wild horses include stress associated with the gather from capture, sorting, handling, and transportation. Based on previous wild horse gathers completed by BLM, mortality from these impacts is infrequent but may occur in less than one half to one percent of the wild horses gathered. Minor injuries such as cuts and scratches, are common during gathers, but are typically superficial and do not require further attention. Antibiotic spray and other first-aid products are available on-site to treat wounds should they occur, and veterinarians are on-call to assist with other injuries or recommendations. Brief conflicts sometimes occur among wild horses once sorted and released into appropriate holding pens. Traumatic injuries rarely result from these conflicts. Spontaneous abortion in mares as a result of stress associated with the gather occurs but is also rare.

The effect of reducing the wild horse population size is expected to have minimal impact on herd population dynamics or age structure. The National Selective Removal Criteria of selecting wild horses for release would be followed to the closest extent possible. Annual

population growth rates can be reduced by changing herd sex ratios to favor males (either stallions or geldings).

Long-term genetic health of the herd is not expected to be compromised by the Proposed Action or Alternatives 1-3. Genetic variability information collected from other HMAs within areas administered by the Battle Mountain District indicates that nearby herds demonstrate high genetic variability and allelic diversity from herds of mixed origins. Genetic data would be collected during the proposed gather to be compared with past and future genetic information. Genetic data for the Stone Cabin Complex population would allow for future monitoring of the HMAs to ensure that the genetic health of the horses would not be compromised during future gathers or other management activities. Because of the degree of movement throughout the Complex and other nearby HMAs, it is assumed that the metapopulation size of the Complex is large enough to ensure genetic variability.

Following the completion of the gather, it is expected that compensatory wild horse distribution fluctuations would occur, in which wild horses from various parts of the Complex would emigrate to other areas after the population is reduced to AML and competition between individuals and bands is also reduced. This would likely occur between the Little Fish Lake WHT and the Stone Cabin HMA, and may occur between other HMAs as well. As stated above, the Fish Creek Complex wild horse gather was completed in 2005/2006. Following the proposed gather, a total of 1,700 wild horses would have been removed through both gathers, leaving a post gather population of approximately 540 wild horses within the Stone Cabin and Fish Creek Complexes. Future census flights would monitor population size and movement, as these populations normalize following achievement of AML. It is expected that wild horse distribution patterns would experience changes as wild horses adapt to increased forage and water availability and reduced competition.

Achieving the established AMLs within the HMAs would allow forage and water resources to improve, thereby improving the habitat within the Complex for the wild horses and other users. Improved range condition and increased forage availability would promote healthy viable, self-sustaining populations of wild horses able to achieve the genetic potential of the herd. Achieving and maintaining the established AMLs throughout the Complex would result in a thriving natural ecological balance between wild horses and other resource values and avoid deterioration of the range. Managing wild horse populations in balance with the habitat and other multiple users would ensure that the populations are less affected by drought, extreme snowfall, or other climatic fluctuations, and that emergency gathers are either avoided or minimized, thus reducing stress to the animals.

3.6.2. Effects that differ between the Proposed Action and Alternatives 1-3:

Table 6 displays the estimated differences in wild horse population numbers for the Stone Cabin HMA that could occur under the various Alternatives. These numbers would have minimal effect on the other HMAs within the Complex, as those HMAs would be simply gathered without further population control measures.

Table 6. Alternatives and Estimated Populations for Stone Cabin Herd Management Area.

Alternative	Jan 2007 Estimated Population	Post Gather Population	Post-foaling Population 2007*	Population 2008	Population 2009	Population 2010	Population 2011
Proposed Action: Release 60% studs, 40% mares	420	181	108 studs 72 mares 23 foals 203 total	120 studs 83 mares 23 foals 226 total	132 studs 94 mares 30 foals 256 total	147 studs 110 mares 35 foals 292 total	164 studs 128 mares 41 foals **333 total**
Alternative 1: Release 40% studs, 40% mares, 20% geldings	420	181	72 studs 72 mares 23 foals 36 geldings 203 total	84 studs 83 mares 23 foals 36 geldings 226 total	95 studs 95 mares 30 foals 36 geldings 256 total	110 studs 111 mares 35 foals 36 geldings 292 total	128 studs 128 mares 41 foals 36 geldings **333 total**
Alternative 2: Release normal 50:50 age structure	420	181	90 studs 90 mares 29 foals 209 total	104 studs 105 mares 29 foals 242 total	119 studs 119 mares 38 foals 276 total	138 studs 138 mares 44 foals 320 total	160 studs 160 mares 51 foals **371 total**
Alternative 3: Release 50% studs, 50% mares, plus additional 20% geldings	420	181 + 36	90 studs 90 mares 29 foals 36 geldings 245 total	104 studs 105 mares 29 foals 36 geldings 278 total	119 studs 119 mares 38 foals 36 geldings 312 total	138 studs 138 mares 44 foals 36 geldings 356 total	160 studs 160 mares 51 foals 36 geldings **407 total**
No Action Alternative, No Gather	420	364	487	565	655	760	882

The above population estimates were based on average 16% annual increase of breeding animals.

Effects of the Proposed Action:

The Proposed Action would involve gathering wild horses to a post-gather population of 300 across the Complex, with the release of 60% stallions and 40% mares into Stone Cabin HMA. This Alternative would allow the population of Stone Cabin HMA to remain below AML for a longer period of time between gathers (up to 5 years) without using other population control techniques as suggested in Alternatives 1 and 3.

A selection criterion that manages for more stallions than mares could result in smaller band sizes, increased competition for mares and increased size and number of bachelor bands. The presence of a higher proportion of studs within the population could also result in decreased age that young mares come into first estrus[1], which has implications in itself. Young mares 1-2 years old can become pregnant and give birth to live foals. These mares are still growing and permanent front incisors are erupting, in addition to enduring the additional nutritional requirements of reproduction. As a result, these mares are often thin to very thin, and can give birth to small foals. Foaling of younger mares could also result in higher death rates of

1 Time period that immediately precedes ovulation and during which the female is most receptive to mating; heat.

mares and/or foals, higher incidence of orphans, and unthrifty foals. If resources are sufficient (forage and water) and distributed over a large area, then potential social impacts associated with the presence of a larger proportion of intact stallions might be mitigated.

A potential indirect impact of modified sex ratios is that of compensatory reproduction, in which reproduction rates could increase to compensate for the population control management. This phenomenon may have occurred after the 1999 gather of Reveille HMA when horses were released at a 59:41 stallion:mare ratio. When the Reveille Allotment was gathered again in 2001, 103 horses were removed from the range, with 25.2% of the gathered animals documented as foals under one year of age. A similar phenomenon could occur with the Stone Cabin HMA.

Compared to the Alternatives 1 and 3, this option would be less intrusive to individual stallions. Under the Proposed Action, there would be reduced risk of complications or death loss attributable to castration at the trap site, as could occur under Alternative 1 and 3.

Depending upon available funding, the TFS would attempt to schedule additional census flights to collect data regarding reproduction rates and herd increases.

Effects of Alternatives 1 and 3:

Alternative 1 would involve gathering wild horses to a post-gather population of 300 across the Complex, with the release of 40% stallions, 40% mares, and 20% castrated males within the Stone Cabin HMA. Alternative 3 would involve gathering wild horses to a post-gather population of 300 wild horses, releasing 50% stallions and 50% mares across the Complex. Then, an *additional* 20% of the breeding population *over* AML would be released as geldings into the Stone Cabin HMA for a post-gather population for the Complex of 336. In either Alternative, approximately 36 stallions would be gelded, then released back onto the Stone Cabin HMA. Selection criteria for geldings would include age and conformation of the stallion. In this way, older stallions or stallions with slight deformities that may otherwise be unadoptable if gathered could be released.

Direct impacts of the Proposed Action to wild horses selected for gelding would be the temporary discomfort and increased stress associated with the procedure. A possibility of hemorrhaging could occur, resulting in death or euthanasia, as it does with any gelding operation. Moreover, geldings would receive a freeze-brand for field monitoring purposes and to differentiate them from domestic geldings. Freeze-branding is considered relatively painless, and direct impacts to the geldings from the branding would only be related to the added stress of handling.

Castration would be surgical and performed by a veterinarian using anesthetic agents and surgical techniques appropriate to field conditions at the surgeon's discretion. There is a slight risk of death caused by anesthesia. Animals would not be held more than 5 days prior to being castrated and would be released 24-36 hours after castration per veterinarian recommendation. Gelding approximately 36 stallions in a field situation would incur costs associated with veterinarian services, equipment transportation, feed, water and BLM staff time. Veterinary costs are expected to range from $65-250 per animal for anesthesia and

surgery plus a trip or mileage fee. Costs would average $100 per animal plus $50-$100 mileage fee.However, the costs of gelding horses one time in the field, then returning them to the range in lieu of maintenance at long term holding, would reduce management costs over the long term for these horses. This operation would be dependent on weather and availability of an on-site veterinarian.

Gelding of wild horses is a well-established procedure. Older stallions that are gathered from the range and sent to long-term holding are typically gelded prior to transport. Likewise, stallions selected for adoption may be gelded per the request of the adopter prior to pick-up. Therefore, castration of stallions is conducted on a regular basis. Under Alternatives 1 and 3, these castrated horses would be permitted to remain wild on the range.

Indirect impacts of Alternative 1 and 3 would allow the BLM to release a near normal 50:50 sex ratio among breeding-age animals (as opposed to the Proposed Action). When compared to the Proposed Action, the near normal proportion of mares within the population post gather could result in fewer and smaller bachelor bands, increased reproduction on a proportional basis with the herd, lengthening of the time after birth when individual mares begin actively reproducing, and larger band sizes.

With 20% of the released population as castrated males, Alternative 1 would likely also increase the time before another gather is necessary, thus reducing stress on the population as a result of another gather. Fighting among gelded males would decrease as testosterone levels decreased, and geldings may band together (similar to bachelor bands). Geldings would be expected to maintain healthier body condition than studs, because they would not have to oppose other males for mating privileges of mares.

Alternative 3 would involve a 50:50 sex ratio of 181 wild horses within the Stone Cabin HMA, with the addition of 20% geldings for a total post release population estimated to be 90 studs, 90 mares and 36 geldings. Normal reproductive rates would continue for the 181 breeding animals, reaching the AML within approximately 3 years. This alternative would allow more horses to remain free on the range without adding to the breeding population.

Alternatives 1 and 3 allow non-breeding animals in the population which would utilize resources that could otherwise sustain breeding-animals. Additionally, stallions could harass geldings in the wild, so monitoring would be necessary to ascertain the affects of geldings in herd dynamics. Furthermore, in the case of Alternative 3, AML may be exceeded within 3-4 years, requiring the need for another gather.

Effects of Alternative 2:

Alternative 2 would involve the gather of the entire Stone Cabin Complex to a post-gather population of 300 horses, without any additional population control management. A near normal age structure of 50% mares and 50% studs would exist within the entire Complex, including the Stone Cabin HMA. This proposal would result in fewer initial costs and less stress to the animals themselves as no gelding or freezemarking would occur. Alternative 2 is the most natural of the action alternatives because there is no modification of male:female ratios. However, without the implementation of any additional population control

techniques, a subsequent gather may be necessary within 3-4 years to maintain carrying capacity (AML) on the range.

Effects of Alternative 4: No Action Alternative:

Under the No Action alternative, no wild horse gather would occur in the Stone Cabin Complex. AML would not be achieved within the HMAs, and wild horses would not be removed from areas outside of the boundaries of designated HMAs. There would be no active management to control the size of the population at this time, and wild horse populations would continue to increase at an average rate of 16-20% per year. This alternative would result in a steady increase in wild horse numbers, which would greatly exceed the carrying capacity of the habitat to provide adequate forage and water.

AML is the maximum population for which thriving natural ecological balance would be maintained and avoid deterioration of the rangeland. The increasing population of wild horses in excess of AML would compete for the available water and forage resources. The areas closest to the water would experience severe utilization and degradation of the range resource. Additionally, excessive utilization by wild horses would impede vegetation recovery, and would not allow for sufficient availability of forage and water during drought years. Uncontrolled increases in the wild horse population, depletion of forage and water resources and degradation of plant communities would result in decline of the body condition, and health of the wild horse population, starvation, and ultimately catastrophic losses to the herd. Emergency gathers have been required in the Stone Cabin and Saulsbury HMAs in response to drought conditions. Emergency gathers would be necessary in the future as the population exceeds the capacity of the habitat. Additionally, wild horses that frequent the area near U.S. Highway 6 in the Stone Cabin HMA would be at increased risk of being hit by a vehicle, and fatalities could occur to either the horses or the passengers in the vehicles.

The AMLs for the Saulsbury, Stone Cabin and Reveille HMAs have both been associated with Stipulated Agreements resulting from Court proceedings. Allowing the populations to continue to exceed these AMLs, through implementation of the No Action Alternative would cause the BLM to violate these court agreements, resulting in additional litigation.

Additionally, the No Action Alternative would violate the Wild Free-Roaming Horses and Burros Act, Federal Regulations, BLM policy and Resource Advisory Council Standards and Guidelines. The BLM realizes that some members of the public advocate "letting nature take its course." However, allowing horses to die of dehydration and starvation would be inhumane and clearly indicates that an overpopulation of horses exists in the HMAs. The Wild Free-Roaming Horses and Burros Act of 1971 mandates the Bureau to "*prevent the range from deterioration associated with overpopulation*", and "*remove excess horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area*". Additionally, Promulgated Federal Regulations at Title 43 CFR 4700.0-6 (a) state "*Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat*" (emphasis added).

Brief summary of WinEquus Population Modeling:

The WinEquus Feral Horse Population Model, developed by Dr. Steven Jenkins at the University of Nevada at Reno was designed to assist wild horse and burro specialists evaluate various management plans and possible outcomes for management of wild horses that might be considered for a particular area.

The model uses data on average survival probabilities and foaling rates of horses to simulate population growth for up to 20 years. The model accounts for year-to-year variation in these demographic parameters by using a randomization process to select survival probabilities and foaling rates for each age class from a distribution of values based on these averages. This aspect of population dynamics is called environmental stochasticity, and reflects the fact that future environmental conditions that may affect horse populations cannot be known in advance. Therefore, each trial with the model will give a different pattern of population growth. Some trials may include mostly "good years," when the population grows rapidly; other trials may include a series of several "bad" years in succession. The stochastic approach to population modeling uses repeated trials to project a range of possible population trajectories over a period of years, which is more realistic than predicting a single specific trajectory.

The model incorporates both selective removal and fertility control treatment as management strategies. A simulation may include no management, selective removal, fertility control treatment, or both removal and fertility control treatment. Wild horse and burro specialists can specify many different options for these management strategies such as the schedule of gathers for removal or fertility control treatment, the threshold population size which triggers a gather, the target population size following a removal, the ages and sexes of horses to be removed, and the effectiveness of fertility control treatment.

Stone Cabin Complex Modeling

The initial estimated populations for the Complex were entered into the model and analyzed through simulations that included adjusting the sex distribution for 60% studs and 40% mares with an estimated age distribution (based on age distribution of horses released in past gathers). The populations were also simulated for no modifications to sex ratios (50% males, 50% females and No Management (No Gather). The simulations were each run for 100 trials for five years. For each simulation, a series of graphs and tables were generated which included the "most typical" trial, population sizes, growth rates, and gather numbers, and minimum, average, and maximum population sizes.

Each model was run for a period of five years from 2006 to 2010, and gives output through 2011 (which is actually six years). These numbers are useful to make relative comparisons of the different alternatives, and potential outcomes under different management options. The lowest, median and highest trials are displayed in Table 8 for each simulation completed. This output, together with the time series and most typical trial graphs are useful representations of the results of the program in terms of assessing the effects of the management plan because it shows not only expected average results but also extreme results that might be possible. The minimum population size in general reflects the numbers that

would remain following thegather. The maximum population size generally reflects the population that existed prior to the gather, and in many cases that figure would not be exceeded during the six years of the simulations.

Under the Proposed Action, a 60% male: 40% female population was established, with parameters reflecting a 60:40 sex distribution and an estimated post-gather age distribution (for Stone Cabin Complex and Stone Cabin HMA models only).

Under the Gather Only alternative, the trial figures reflect the population increasing at normal rates with a gather being conducted sometime between year 4-5.

Under the No Action Alternative, no horse gather would take place. Populations would continue to increase from the initial population parameters.

Gelding horses under the Proposed Action was not modeled because geldings do not factor into the breeding population models, but are simply added as static numbers of horses on the range.

The following are five-year results of the WinEquus Modeling Program for the Stone Cabin Herd Management Area, comparing the Proposed Action, Alternative 2 and the eliminated alternative to use fertility control.

Table 7. Results from the WinEquus Model Comparing Four Alternatives

HMA	Trial	Proposed Action or Alternative 1: Release 60% males, 40% females	Alternative 2: Gather only, release 50% males, 50% females	Alternative 3: Release additional 20% geldings (+36 geldings)	Alternative 4: No Action Alternative (No horse gather)
		Population in Six Years			
Stone Cabin Complex	Lowest	274	385	N/A	1,166
	Median	426	547	N/A	1,458
	Highest	484	734	N/A	1,878
Saulsbury HMA	Lowest	N/A	27	N/A	329
	Median	N/A	34	N/A	460
	Highest	N/A	40	N/A	703
Stone Cabin HMA	Lowest	188	276	312	534
	Median	272	324	360	740
	Highest	326	363	399	1,044
Reveille HMA	Lowest	N/A	95	N/A	110
	Median	N/A	108	N/A	158
	Highest	N/A	123	N/A	193

To summarize the results of the model, obtained by simulating various alternatives for the Stone Cabin Complex wild horse gather, the following questions need to be addressed:

- *Do any of the Alternatives "crash" the population?*
  None of the action alternatives indicate that a crash is likely to occur to the population. Minimum population levels and growth rates are all within reasonable levels, and adverse impacts to the population are not likely. However, the model does not take into account carrying capacity of the range. The WinEquus model indicates that with the No Action Alternative (wild horse gathers), the population could increase to as high as 1878 horses in 6 years. Undoubtedly, this many excess horses would lead to a population "crash," with hundreds of wild horses inevitably starving. Emergency gathers would be the only recourse to prevent death from starvation of nearly all the horses within Stone Cabin Complex. Damage to rangeland resources would very likely be irreparable if the horse population is not managed at or near carrying capacity (AML), or the HMA may have to be closed to wild horses and cattle until the range can recover.

- *What effect does fertility control have on population growth rate?*
  Fertility control was considered and analyzed in the model, but the Proposed Action (60:40 sex ratio) provides similar population growth results with less impact and stress to the animals and at less cost. Therefore, fertility control was not a viable option for this gather and was eliminated as an alternative action.

- *What effect do the different alternatives have on the average population size?*
  Results of the population modeling indicate that the Proposed Action would be the most effective and inexpensive alternative to maintain AML and lengthen time needed between gathers. Alternative 1 would provide a similar population of wild horses on the range as the Proposed Action, and would permit a normal sex ratio of breeding animals, but would incur more risk and expense of gelding 20% of the released population. Alternative 2 would be straightforward and least expensive, but it could exceed AML after 4 years and require another gather at that time. Alternative 3 would incur more risk and expense of gelding and would exceed AML after only 3 years because 36 additional horses would be released. With the No Action Alternative, populations could double within five years to approximately 1900 animals in an area that can only sustain about 547 head. Degradation of rangeland resources would occur to such an extent that starvation of wild horses, cattle, and wildlife would likely be imminent. Therefore, maintaining the established AML within a 4-5 year range is imperative.

3.7. Wildlife (Including Threatened and Endangered Species and Special Status Species, and Migratory Birds)

Affected Environment

Wildlife

Mammals that may occur within the gather area include: coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), badger (*Taxidea taxus*), little brown myotis (*Myotis lucifungus*), Western pipistrelle (*Pipistrellus hesperus*), desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), white-tailed antelope squirrel (*Ammospermophilus leucurus*), Great Basin pocket mouse (*Perognathus parvus*), Merriam's kangaroo rat (*Dipodomys merriami*), deer mouse (*Peromyscus maniculatus*), and desert woodrat (*Neotoma lepida*).

Reptiles that may occur within the area include: zebra-tailed lizard (*Callisaurus draconoides*), desert collared lizard (*Crotaphytus insularis*), long-nosed leopard lizard (*Gambelia wislizenii*), and Great Basin rattlesnake (*Crotalus viridis* var. *lutosus*).

Raptors that may occur within the gather area include: red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), Northern harrier (*Circus cyaneus*), rough-legged hawk (*Buteo lagopus*), prairie falcon (*Falco mexicanus*), American kestrel (*Falco sparverius*), and great horned owl (*Bubo virginianus*). Other avian species that may occur within the area include: American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), sage sparrow (*Amphispiza belli*), black-throated sparrow (*Amphispiza bilineata*), horned lark (*Eremophila alpestris*), loggerhead shrike (*Lanius ludovicianus*), and mourning dove (*Zenaida macroura*).

Migratory Birds

Nesting habitat for various migratory bird species may occur within the areas of the proposed gather. These species include but are not limited to the loggerhead shrike, sage thrasher, horned lark, American crow, common raven, burrowing owl, red tailed hawk, ferruginous hawk, sage sparrow, brewer's sparrow, black-throated sparrow, lark sparrow, rock wren, and white crowned sparrow (*Zonotrichia leucophrys*).

Special Status Species

There are no known threatened, endangered or special status plant species in the gather area.

Threatened and Endangered Species:

The BLM is required by the Endangered Species Act of 1973, as amended, to ensure that no action on the public lands jeopardizes a threatened, endangered, or proposed species.

Bald Eagle *(Haliaeetus leucocephalus)*: The bald eagle (threatened) is the only federally listed, proposed or candidate species that may occur in the gather area. Though these threatened birds do not commonly nest in Nevada, low densities of bald eagles winter in, and migrate through, the state during November through March.

Bald eagles roost opportunistically in the cottonwood trees that are common on ranches and at water sources throughout the West. The birds are also known to roost in pinyon and juniper trees, though communal roosts are most commonly found in limber pine (*Pinus flexilis*) at high elevation. Tall trees occur within the Kawich and Hot Creek Ranges.Trap sites and/or holding corrals would not be located in the mountains in the vicinity of bald eagles' nests. No effect to bald eagles is expected to result from the Proposed Action or Alternatives.

Other Special Status Species:

In addition to federally listed species, BLM also protects by policy (see 6840 section of the BLM Manual), other *special status* plant and animal species. The list includes certain species designated by the state of Nevada, as well as species designated as "sensitive" by the Nevada BLM State Director. Nevada BLM Sensitive animal species that may occur in the area of the Proposed Action include: ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), western burrowing owl (*Speotyto cunicularia hypugea*), prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), and greater sage grouse (*Centrocercus urophasianus*).

Golden Eagle

The golden eagle is Nevada's largest resident bird of prey, sometimes weighing over twelve pounds and having a wingspan that may exceed seven feet. This bird is highly adaptable, has world-wide distribution and may be a resident of the Reveille Allotment. Golden eagles feed primarily on small mammals, such as jackrabbits, cottontails, and ground squirrels, though they are capable of taking larger prey. Trap sites and/or holding corrals are unlikely to be located in the vicinity of golden eagles' nests. No effect to golden eagles is expected to result from the Proposed Action or Alternatives.

Ferruginous hawk

The ferruginous hawk is a possible summer-nesting resident of the gather area. A number of nests have been recorded over the years. Juniper trees are the preferred nesting sites of the Ferruginous hawk, and nests are often constructed in juniper "stringers," which overlook large open areas on alluvial fans. Prey consists primarily of ground squirrels in the spring and early summer and jackrabbits in late summer and fall. Ferruginous hawks are more sensitive to nest disturbance than most raptors. The standard procedure is to avoid active ferruginous hawk nest sites by on half mile until young are fledged. As this gather is proposed to take place in January and February, it is unlikely that any active ferruginous hawk nests will be disturbed.

Western Burrowing Owl

Lower elevations of the gather area provide nesting and hunting habitat for this relatively common species. Preferred nesting habitat for burrowing owls are areas previously dominated by dense stands of big sagebrush that have burned and converted to low grass species, with a few sagebrush trunks remaining for perches. Nesting normally takes place in abandoned badger burrows. Prey consists of rodents and insects, primarily beetles, during the breeding season. Burrowing owls are not particularly sensitive to human activity, but

any active burrowing owl nest would be avoided. As this gather is proposed to take place in January and February, it is unlikely that any active burrowing owl nests would be disturbed.

Greater Sage Grouse

One of the more prominent sensitive species known to occur within the gather area is the greater sage grouse. Sage grouse depend on sagebrush dominated sites. These occur in the higher elevation portions of Stone Cabin Valley, Reveille Valley, the Kawich and Hot Creek Ranges. Sage grouse also depend on riparian habitats for brood rearing. Riparian areas are especially important sources of insects and forbs that are less available in sagebrush habitats. Riparian areas that are important to sage grouse occur in the Kawich and Hot Creek Ranges. Normal winter range is in low sage, big sage, mountain sage and mountain brush sites. Important habitat utilized by sage grouse is already being impacted by wild horses, in addition to riparian areas, aspen communities and meadow complexes valuable to many species of wildlife.

Environmental Consequences

Proposed Action and Alternatives 1-3:

Removing wild horses from the Stone Cabin Complex would have minimal, short-term direct impacts to wildlife. Some wildlife present in or near trap sites or holding facilities could be temporarily displaced. The possibility exists that special status plant and animal species could be disturbed during the gather activities. However, trap sites would typically be located in areas that have previously been disturbed (i.e. gravel pits), and for short periods of time (1-3 days). Should it be determined necessary by a qualified biologist, trap sites would be inventoried prior to selection to determine the presence of sensitive species. If potential impacts could not be mitigated, these areas would be avoided.

Any activity during the migratory bird nesting season (roughly March through July) potentially risks violation of the Migratory Bird Treaty Act by destroying the eggs or young of common shrub or ground-nesting species. Because the proposed gather would not occur during the nesting season, no action would occur that would violate the Migratory Bird Treaty Act. Activities in these areas constitute relatively low potential for disturbance to individual nesting birds and no potential for impact to migratory bird populations because many migratory bird species are heavily dependent on riparian systems and no trap sites would be located at riparian areas.

Wild horse gather activity during the winter will not conflict with sage grouse. Winter range for horses is in lower elevation areas (mainly valleys) while sage grouse winter on high mountain ridges far from wild horse winter range. The gather is compatible with the South Central Nevada Sage Grouse plan. Disturbance to sage grouse from the gather in other seasons is expected to be very minimal because of the different habitat utilization between horses and sage grouse.

Wildlife and wildlife habitat would be indirectly affected by the Proposed Action by resulting in improvements in resource health from current management. Reduction of the current wild horse population and achievement of the established AMLs provides the best

opportunity for conservation, protection, and preservation of identified species and their habitats. Implementing the proposed gather within the Complex would reduce utilization on key forage species, improving the quantity and quality of forage available to wildlife and decrease competition for water sources. Riparian areas within the Complex provide vital habitat to wildlife. Habitat conditions in riparian areas, aspen stands, and uplands are expected to improve to the benefit of most wildlife, migratory birds, and special status species, including sage grouse. Management for healthy rangelands and achievement of RAC Standards would benefit sensitive species such as sage grouse and pygmy rabbits as well as most other wildlife species. Benefits to wildlife would be most apparent under the Proposed Action, as population control techniques would result in lower growth rates than the Alternatives. In general, the impacts of the Proposed Action and Alternatives 1-3 would be enhanced recovery of wildlife habitat due to a reduction of grazing animals (wild horses) in the gather area, as well as more available forage for wildlife and bird use, proportional to the number of horses remaining on the range. Refer to Table 6 in Section 3.6 for information related to wild horse population sizes estimated for each alternative.

No Action Alternative (No Wild Horse Gather):
Within the Complex, rangeland vegetation and riparian areas currently receiving heavy use during critical growth periods or repeated use by wild horses would continue to be impacted, and short-term allotment-specific objectives would not be achieved. Wild horse populations would continue to increase, exceeding the capacity of the habitat, resulting in heavy and severe use of vegetation resources, degradation of plant communities including riparian areas, and increases of invasive species. Across the Complex, downward trends would be expected in key perennial species and overall ecological condition, resulting in reduced forage availability to wildlife, livestock, and wild horses. Important habitat utilized by sage grouse is already being impacted by wild horses, in addition to riparian areas, aspen communities and meadow complexes valuable to many species of wildlife. The No Action Alternative would have no direct impact to migratory birds because there would be no activities disturbing the birds. However, indirect impacts could be decreased forage and cover caused by large numbers of horses, which could cause a loss of preferred habitat for some species of migratory birds. Further degradation would be likely, and could be irreversible if the proposed gather does not occur to achieve the AMLs and thriving natural ecological balance.

The direct and indirect impact of the No Action Alternative would be that horses would not be gathered. Increased numbers of horses will compete with wildlife for resources. The No Action Alternative would not be beneficial to wildlife.

The No Action Alternative would have no direct impact to migratory birds because there would be no activities disturbing the birds. However, indirect impacts could be decreased forage and cover caused by large numbers of horses, which could cause a loss of preferred habitat for some species of migratory birds.

3.8. Wilderness Study Areas

Affected Environment

Three Wilderness Study Areas (WSAs) are located within the proposed gather area. WSAs are known for their rugged, remote and sometimes inaccessible mountain peaks and ranges. Canyons in some of the WSAs consist of rock outcroppings, spires, rock faces, and ridges with sheer vertical drops of hundreds of feet. Vegetation consists mainly of dense pinyon pine and juniper woodland with a sagebrush understory. Mule deer, mountain lion, pronghorn antelope, wild horses, chucker partridge, and sage grouse are among the numerous wildlife species found in the WSAs. Roads, fencelines, pipelines and water developments are located in some of the WSAs. Despite these man-made intrusions, the ruggedness and remoteness of most WSAs still remain. See Map 1, page 2, for locations of each WSA.

Kawich WSA

The Kawich WSA is located in the Kawich Range in northeastern Nye County approximately 50 miles east of Tonopah, Nevada, and includes 54,320 aces of public land. The area provides winter habitat for a large population of mule deer. The Kawich WSA consists of mountainous country with a high central plateau and several peaks. There are two small one-half acre lakes, the Bellehelen Lakes, located on the top of the plateau at the northern end of the WSA.

Rawhide Mountain WSA

The Rawhide Mountain WSA is located in the Hot Creek Range in northeastern Nye County approximately 50 miles east of Tonopah, Nevada. The WSA includes 64,360 acres of public land, although only about half of the WSA is within the proposed gather area. The central portion of the Rawhide Mountain WSA is extremely rugged with high elevations and remote drainages and pristine riparian settings around springs.

South Reveille WSA

South Reveille WSA is located in northeastern Nye County, approximately 70 miles east of Tonopah, Nevada. The WSA includes 106,200 acres of BLM lands. The rugged mountainous core of the WSA is a thick, multi-ridged strip of steep-sided mountains rising to crests and flat-topped summits between 8,000 and 9,000 feet. Sheer cliffs and large canyons with steep walls run out to the edge of the valleys.

Environmental Consequences

The Interim Management Policy for Lands Under Wilderness Review, (IMP) (H-8550-1) provides guidance for management of WSAs. The IMP addresses wild horse and burro management in Chapter III, Section E which specifically allows for the use of helicopters for the gathering of wild horses. In addition, the IMP states: "Taking into account that wild horse and burro numbers fluctuate dramatically within WSAs due to a variety of factors, the Bureau must still endeavor to make every effort *not to allow populations within WSAs to degrade wilderness values*, or vegetative cover as it existed on the date of the passage of the Federal Land Policy and Management Act (FLPMA). Wild horse and burro populations *must be managed at appropriate management levels* as determined by monitoring activities to ensure a thriving natural ecological balance" (emphasis added).

Proposed Action and Alternatives:
The Proposed Action and Alternatives 1-3 would not have any direct impacts to the WSAs within the Stone Cabin Complex. Since the proposed action excludes the use of motorized/mechanized vehicles within the WSAs, the non-impairment criteria would be met, and the completion of a wild horse gather would not result in any unacceptable impacts to WSA lands.

The gather operation would result in the complete removal of all wild horses within horse-free areas, and achievement of AML within the HMAs. As a result, riparian areas and native vegetation would benefit and experience improvement, and wilderness values would be enhanced in the WSAs within the gather area. Improvements to areas accessible to horses within the WSAs would be most apparent with the Proposed Action because wild horse populations would increase more slowly over the next 5 years than with the Alternative Actions. Improvements would be less apparent with each subsequent Alternative because populations would increase faster with each Alternative.

No Action Alternative (No Wild Horse Gather)
The No Action Alternative would allow wild horses to continue utilizing resources within the WSAs both inside and outside of established HMA boundaries. Heavy use of vegetation and riparian areas within the WSAs would continue and increase under the No Action Alternative leading to degradation of wilderness values. Wild horses are exceeding the capacity to provide forage and water throughout the Complex and WSAs. The No Action Alternative would not allow for a thriving natural ecological balance, would allow wild horses to degrade wilderness values and vegetative cover, and would not be in conformance with the IMP.

4. CUMULATIVE IMPACT ANALYSIS

The National Environmental Policy Act (NEPA) regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

4.1. *Past, Present, and Reasonably Foreseeable Actions*

The Past, Present, and Reasonably Foreseeable Future Actions applicable to the assessment area are identified as the following:

Table 8. Past, Present, and Reasonably Foreseeable Actions

Project -- Name or Description	*Status (x)*		
	Past	*Present*	*Future*
Issuance of multiple use decisions and grazing permits for ranching operations through the allotment evaluation process and the reassessment of the associated allotments.	*X*		*X*
Livestock grazing	*X*	*X*	*X*
Invasive weed inventory/treatments	*X*	*X*	*X*
Mineral Exploration / Geothermal Exploration/Abandoned mine land reclamation	*X*	*X*	*X*
Recreation (hunting, camping, off-road vehicle use, etc)	*X*	*X*	*X*
Spring development (fencing water sources)	*X*		*X*
Woodcutting, pine nut harvesting	*X*	*X*	*X*
Wildfire suppression, stabilization and rehabilitation	*X*		*X*
Wildlife guzzler construction	*X*	*X*	*X*
Wild Horse Gathers	*X*	*X*	*X*
Wild Horse issues, AML adjustments and planning	*X*	*X*	*X*

Any future proposed projects within the Stone Cabin Complex would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

4.2. Effects of Past, Present, and Reasonably Foreseeable Future Actions

The following critical elements or other resources that were discussed in Section 3.0 are evaluated in this section for cumulative effects. All resource values listed in Tables 3 and 4 have been evaluated for cumulative impacts. If there are no direct or indirect impacts to said resources, there are likewise no expected cumulative impacts.

The Cumulative Effects Study Area (CESA) (the gather area) includes the entire Stone Cabin Complex and the surrounding areas outside the HMAs. See Map 1, pg. 2, "Gather Area of the Stone Cabin Complex."

4.2.1. Cultural/ Historical

Mineral exploration, recreation, and other activities such as woodcutting and water or vegetation projects have likely impacted some cultural resources within the project area since the area was settled over 100 years ago. Impacts could include cultural resources being disturbed or destroyed through human activities associated with these projects. Livestock grazing and wild horse use have also historically occurred in the project area and may have impacted cultural resources through trampling and effects to soil stability, especially near water locations. Since the mid 1970's, BLM has conducted cultural resource inventories throughout the project area.

The Proposed Action and Alternatives 1-3, in conjunction with past, present and reasonably foreseeable actions would lessen impacts to cultural resources, proportional to the size of the wild horse populations in areas such as springs, where cultural resources could be located.

Cultural inventories would continue to be conducted to evaluate any cultural properties that could be affected by future proposed projects and related activities. The No Action alternative would contribute to continued use of riparian areas and potential impacts to Cultural Resources in conjunction with other past, present and reasonably foreseeable actions.

4.2.2. Grazing Management

The gather area has been utilized by domestic livestock since the area was settled over 100 years ago. However, the BLM has only administered the domestic livestock use of the public lands since the 1960's. Since that time, BLM has conducted analysis and evaluations followed by decisions to adjust or reduce permitted livestock numbers, and will continue to do so in the future. In addition, the BLM has also implemented grazing management systems, modified seasons of use or reduced preference to improve range condition.

Resource monitoring has indicated that wild horse and domestic livestock use and overuse have contributed to degradation of range condition within the gather area. Historically, high numbers of wild horses have caused deterioration of rangeland. Recreation, mineral exploration, and invasive weed treatment have had, and are expected to continue to have negligible impacts to grazing management within the project area.

The Proposed Action and the Alternatives are expected to result in indirect impacts that would contribute to improved rangeland health in conjunction with past present and future adjustments in livestock grazing, noxious weed treatment and other potential actions. The benefits would be proportional to the number of horses on the range via the alternatives. As future wild horse decisions are implemented and future gathers conducted to achieve the AML, these impacts are expected to continue and contribute further to cumulative improvements to the forage availability and therefore grazing management as well.

In the long term, the Proposed Action would result in greater improvements to rangeland health and grazing management as AML would be achieved and maintained in the Stone Cabin Complex. Improvements decrease under each successive Alternative, proportional to the size of the wild horse population. The No Action Alternative would not result in any long-term cumulative benefits to grazing management. Continued range deterioration and degradation of riparian and upland habitat in conjunction with any reasonably foreseeable projects or other management actions would not improve forage utilized by permitted livestock. In the long term, the No Action Alternative could result in further reductions of livestock numbers within the gather area.

Other activities, such as mining and recreation, may temporarily impact grazing management. However, due to the small size or short duration of the disturbance (2 weeks), cumulative impacts associated with the Proposed Action or Alternatives 1-3, when compared to the overall CESA, are expected to be negligible especially when identified mitigation measures are implemented.

4.2.3. Vegetation

The vegetation within the gather area (CESA) has been utilized by domestic livestock and wild horses and burros since area was settled over 100 years ago. Some of the range has a history of over-utilization by overpopulation of wild horses and livestock use.

The Proposed Action and Alternatives 1-3 would contribute to isolated areas of disturbed vegetation through the gather activities. In the long term, however, the achievement of AML in conjunction with past grazing management changes and other foreseeable actions such as recreation, mineral exploration, vegetation harvesting and invasive weed treatment, would contribute to cumulative long-term improvement of vegetative resources.

The Proposed Action and Alternatives 1-3 would promote improvements to ecological condition. Excessive use by wild horses would not occur when the AML is maintained. Key forage species would improve in health, abundance and robustness, and would be more likely to set seed and reproduce, which in turn would contribute to improvements in rangeland health.

The proposed gather and other foreseeable actions would begin to offset past trends in habitat modification by allowing for attainment of rangeland health standards and allotment specific objectives. This would be most apparent under the Proposed Action, which would maintain wild horse populations below the established AML. Alternatives 1-3 would allow the AML to be exceeded more quickly between gathers, contributing to utilization levels which exceed objectives and slowed progress towards achievement of Standards outside this HMA.

The No Action Alternative would allow continued degradation of vegetation by wild horses, which in the long term would cause native vegetation to be replaced by less palatable native plants. Past impacts would not be offset, and downward trends would continue to occur.

4.2.4. Wetlands and Riparian Zones

Many of the riparian areas in the vicinity of the gather area are located on the Forest Service and will not be directly affected by the gather. However, riparian health has historically been impacted by livestock and wild horse use throughout the Complex. Some riparian areas may have also been impacted by recreational users and historical exploration activities. Currently, some of the riparian areas within the Complex are degraded, and past and current wild horse use identified as a contributing factor. In the future, livestock grazing and wild horse use would likewise be the primary impacts to riparian health.

Achieving AML would decrease competition for water among wild horse herds and between wild horses and other wildlife in the future. Therefore, the direct cumulative impacts of the Proposed Action when analyzed with past, present, and reasonably foreseeable actions, including recreation, mineral exploration, spring source fencing, adjustments to livestock grazing use, and invasive weed treatment, are improved riparian health and further attainment of RMP objectives and Standards for Rangeland Health.

4.2.5. Wild Horses

As discussed in Section 3.6, the HMAs within the Stone Cabin Complex have experienced wide fluctuations in wild horse numbers, excessive use by large numbers of wild horses and many removals to achieve AML or due to drought emergencies. Through some of these gathers, age selection criteria were applied which may have modified sex ratios to favor studs. Additionally, fertility control research was conducted in the mid 1980's. Gathers in other adjacent HMAs have also affected population size and distribution over the years.

Other past activities, which may have affected wild horses within these HMAs include livestock grazing through the impacts on vegetation condition and availability, as well as water quality and quantity. Adjustments in livestock use have also affected wild horse populations through varying degrees of improvement to the rangeland vegetation with associated increases in quality and quantity of available forage.

Although there are no mineral and geothermal activities in the gather area at the present time, such activities and other small projects may have had or in the future may have temporary and isolated impacts to the wild horses. Impacts would include minor impacts to forage availability and temporary disturbance to wild horses.

Future activities which could occur include adjustments to livestock grazing levels or season of use, water developments and spring exclosures, recreation and mineral exploration activities. The future may also involve further adjustments (increases or decreases) to the AMLs of the HMAs within the Complex should range conditions improve or decline. Other activities, such as future gathers to maintain AML, implementation of fertility control research within the Complex could occur. Should the genetic analysis of the Complex indicate issues with genetic variability, specific treatment protocols would be developed to address them. In the future, the portion of U.S. Highway 6 that passes through the Stone Cabin HMA could be fenced for public safety to prevent collisions with wild horses crossing the highway. This itself would cause conflicts with wild horses initially as they attempt to breach the fences along historic movement pathways. In the long term, impacts to historic herd distribution and movement patterns would occur.

All other foreseeable activities, such as invasive weed treatment, vegetation harvesting, recreation, etc., would likely result in negligible impacts to wild horses in the long term because the areas of disturbance would be small compared to the overall size of the gather area. An overall lower population and density of wild horses across the landscape would allow increased recovery of native vegetation that is currently degraded, as well as reduce or eliminate further degradation. Improved range heath through attainment and maintenance of AML would increase forage availability for wild horses across the Complex, which in turn would lead to improved equid body condition, healthier foals, and ensure herd sustainability through drought years. The Proposed Action and Alternatives in conjunction with past present and reasonably foreseeable actions would contribute to long term success of the wild horse populations and cumulative improvements to wild horse habitat.

The No Action Alternative would not result in any long-term cumulative benefits to any rangeland user. Continued range deterioration and loss of water sources and riparian habitat

would not improve habitat for future generations of wild horses. Based upon current population rate increases, the numbers of wild horses could exceed 1,900 horses by 2011 in a Complex which can only sustain a maximum of 547. If the populations were to increase unchecked, eventually emergency removal would be necessary to prevent catastrophic death of the animals. Irreparable damage to the arid habitat could result in the need to permanently remove all wild horses from all of these HMAs cumulatively resulting in reduced AMLs or the zeroing-out of HMAs for long term management due to degraded habitat.

4.2.6. Wildlife (Including Threatened & Endangered Species, Special Status Species, and Migratory Birds)

Grazing by livestock and wild horses has historically occurred in the Stone Cabin Complex and may have impacted wildlife habitat, especially near water locations. These activities result in loss of habitat and disruption of movement patterns. The Proposed Action and Alternatives 1-3 would enhance rangeland condition which benefit wildlife species and associated habitat. The Proposed Action allows more time to elapse before AML is exceeded, and is thus more beneficial to wildlife habitat. Cumulatively, the Proposed Action or the respective Alternatives would enhance water sources, riparian habitats, and forage and cover availability. Alternatives 1-3 would provide less improvement to wildlife habitat proportional to the number of horses utilizing the same resources.

There are no Threatened or Endangered plants found within the proposed gather area. The bald eagle is the only animal species identified to be possibly found within the gather area. No impacts to the bald eagle are expected because there is no critical T&E habitat found in the proposed gather area. Therefore, no cumulative impacts to bald eagles would occur under the Proposed Action or any of the Alternatives.

Impacts would differ slightly between the Proposed Action and Alternatives 1-3 in that populations would reach maximum AML sooner with each successive Alternative than with the Proposed Action, dependant upon wild horse population size. The Proposed Action would allow more time to elapse before AML is exceeded, and is thus more beneficial to wildlife habitat. Wild horses and livestock utilize the same natural resources (food, water, cover, and space) as wildlife. However, all alternatives would improve the quality and quantity of these resources because the wild horse population would be reduced and maintained at AML, and the capacity of the habitat.

In conjunction with past, present and future actions such as future wild horse gathers, adjustments to livestock grazing use, noxious weed treatment, recreation and mineral exploration, the Proposed Action or Alternatives would result in cumulative, long term improvements to wildlife habitat, including enhanced water sources, riparian habitats, and forage and cover availability.

The No Action Alternative would not result in any long-term cumulative benefits to any rangeland user. Continued range deterioration and loss of water sources and riparian habitat due to an overpopulation of wild horses, in conjunction with any reasonably foreseeable projects or other management actions would not improve habitat for wildlife, sensitive

species, or other values, and would result in long term, continued degradation in wildlife habitat values.

4.2.7. Wilderness Study Areas

The remoteness and ruggedness has precluded extensive human intrusion within the WSAs in the gather area. Likewise, the ruggedness and high elevations have limited wild horse use to the lower elevations and valleys, although some horses utilize the Bellehelen Lakes in the South Reveille WSA Evidence of historic kilns from mining and exploration occur within some of the WSAs. The WSAs are presently used mainly for recreation, such as hunting, camping, hiking and rock climbing.

The Proposed Action and Alternatives 1-3 would promote improvements to ecological condition, proportional to wild horse population size. Excessive use by wild horses would not occur when the AML is maintained. Achievement of AML in conjunction with other foreseeable actions such as recreation, mineral exploration, vegetation harvesting and invasive weed treatment, would help preserve the pristine areas within some of the WSAs and contribute to improved areas that have sustained any damage in the past. This would be most apparent under the Proposed Action, which would maintain wild horse populations below the established AML for a longer time period.

Riparian areas and springs within parts of the WSAs have historically been impacted by livestock and wild horse use in the Complex. Some riparian areas may have also been impacted by recreational users and historical exploration activities. Obtaining and maintaining AML would allow springs and water developments within the WSAs to function properly, barring a natural disturbance. Furthermore, a reduction of the population from current levels would decrease competition for water among wild horse herds and between wild horses and other wildlife in the future. Therefore, the direct cumulative impacts of the Proposed Action when analyzed with past, present, and reasonably foreseeable actions, including recreation, mineral exploration, spring source fencing, and invasive weed treatment, are improved riparian health within horse-accessible portions of the WSAs.

The No Action Alternative would allow continued degradation of vegetation and riparian areas used by wild horses. Past impacts would not be offset, and downward trends could continue to occur.

4.3. Summary of Past, Present, and Reasonably Foreseeable Future Actions

The area affected by the Proposed Action and the Alternatives is the area in and around the Stone Cabin Complex. Please refer to Map 1 which displays the HMA boundaries, gather area, and Cumulative Effects Study Area. Past, proposed and reasonably foreseeable actions that may impact the Complex's wild horse herds could include past and future wild horse gathers. Over time, as wild horse population levels attain and maintain an acceptable range of AML, thriving natural ecological balance would also be maintained.

Other reasonably foreseeable actions within the affected area may include permitted livestock grazing, mining, recreational activities, range improvements, and vegetation monitoring. The BLM would continue to conduct the necessary monitoring to periodically

evaluate the effects of livestock grazing and use by wild horses and wildlife, and determine if progress is being made in the attainment of multiple use objectives and Standards for Rangeland Health. Monitoring would be in accordance with BLM policy as outline in the *Nevada Rangeland Monitoring Handbook* and other BLM technical references. However, cumulative beneficial effects from the Proposed Action or Alternatives 1-3 are expected, and would include continued improvement of the range condition and riparian-wetland condition, which in turn positively impact wildlife, wild horse populations, and livestock as forage availability and quality is maintained and improved.

Under the No Action Alternative, wild horse populations would continue to increase and cause impacts (such as trampling and overgrazing) to the wildlife habitat from the periodic excessive use by wild horses at riparian areas and in rangeland vegetation, and potentially additive future effects of livestock grazing. In light of other foreseeable actions, the No Action Alternative would result in long-term, degradation to the health of public lands throughout the Complex. Cumulative impacts of the No Action Alternative, coupled with the impacts from past, present, and reasonably foreseeable actions, would hinder success in attaining RMP objectives and Standards for Rangeland Health, and would preclude any improvement to the health of vegetative communities and the ecological condition of range as a whole.

5. SUGGESTED MONITORING

The BLM would continue to conduct the necessary monitoring of wild horse herds, population growth, and body health and condition. The Tonopah Field Station would conduct census flights every 2-4 years to monitor wild horse population dynamics as budget permits. Flights would be planned to encompass the entire Complex, as emigration across HMAs and the Monitor WHT is expected. Annual censes of Reveille would continue. On-the-ground monitoring would continue as personnel and funding allow.

Rangeland utilization and trend studies would be conducted on a regular basis. Rangeland resource health monitoring is periodically conducted throughout the Stone Cabin Complex to evaluate the effects of livestock grazing and use by wild horses and wildlife, and determine if progress is being made. Monitoring is in accordance with BLM policy as outlined in the *Nevada Rangeland Monitoring Handbook* and other BLM technical references.

6. CONSULTATION AND COORDINATION

On May 3, 2006, a scoping letter of the Proposed Action was sent to individuals, groups and agencies that notified the BLM of their interest in the gather (included in Appendix B). Responses from those who replied to the scoping document are described in Section 1.6 of this document.

On May 18, 2006, an annual hearing to take comments concerning the use of helicopters and motorized vehicles to capture wild horses or burros was held in Reno, Nevada. The public was notified that the Stone Cabin, Saulsbury, and Reveille HMAs were being considered for helicopter/motorized vehicle use. One public comment by Richard Sewing, National

Mustang Association, Inc., was received during the hearing, in support of helicopters for use in wild horse and burro gathers. Katie Fite, Biodiversity Director of the Western Watersheds Project, wrote a letter objecting to the use of helicopters for use in wild horse and burro management.

A copy of this Gather Plan EA will be sent to each of the parties listed in Appendix B. The document will also be posted at the Tonopah Field Station for public review. A thirty-day comment period will be in effect from the day this document is issued.

7. LIST OF PREPARERS

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Andrea Felton	Wild Horse and Burro Specialist/ Rangeland Management Specialist, Lead Preparer
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K. Scott Stadler	Archaeologist, Cultural Resources Specialist
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Nancy Army	Oil and Gas, Minerals, Geothermal Exploration
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8. APPENDICES

8.1. *Appendix A:* Standard Operating Procedures and Gather Plan for the Stone Cabin Complex

8.2. *Appendix B.* List of Interested Parties.

9. REFERENCES

Bureau of Land Management. 1997. Tonopah Resource Management Plan and Record of Decision. Tonopah Field Station, Tonopah, Nevada.

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WILD HORSE GATHER PLAN AND STANDARD OPERATING PROCEDURES FOR THE STONE CABIN COMPLEX:

including the Saulsbury, Stone Cabin and Reveille Herd Management Areas (BLM) and the Monitor (south) Wild Horse Territory (U.S. Forest Service)

I. GATHER PLAN

The purpose of the gather plan is to outline the methods and procedures for capturing approximately 700 wild horses from public lands administered by the Tonopah Field Station (BLM) and the U.S. Forest Service. Achievement of the Appropriate Management Level (AML) would require the removal of approximately 521 wild horses and the release of 181-217 wild horses back to the HMAs/WHT.

A. Gather Area

The gather area encompasses approximately 1,229,000 acres of public lands. The gather areas include the Stone Cabin, Saulsbury and Reveille Herd Management Areas (HMAs), and areas outside of the HMA boundaries not designated for horse use. Wild horses located outside the HMAs in "horse-free" areas would be gathered as a priority. Refer to Map 1, page 3, of the Stone Cabin Complex Gather Plan EA for the gather area.

B. Administration of the Contract /Gather Operations

The National Wild Horse and Burro Gather Contract would be used to conduct the wild horse gather tentatively scheduled for January-February 2007. BLM personnel would be responsible for overseeing the contract for the capture, care, aging and temporary holding of wild horses from the capture area. BLM Wild Horse and Burro Specialists from Battle Mountain Field Office (BMFO) and Tonopah Field Station (TFS) would be present during all aspects of the gather activities.

Prior to the start of the gather, BLM plans to conduct an aerial census of the gather area to obtain accurate wild horse population and distribution data within the gather area. To establish a baseline population size for use in the Environmental Assessment (EA), estimates were used based on the most recent comprehensive census flights (January 2006), and the average rates of increase utilized by TFS.

Standard Operating Procedures (SOPs) described within this document would be utilized for the capture and handling of wild horses. SOPs have been developed over time to ensure minimal impacts associated with gathering, handling, and transporting wild horses, and collecting herd data.

Multiple trap sites would be used to capture wild horses. Ideally, trap sites would be established in areas of previous soil or vegetation disturbance (such as gravel pits, roads etc.), to avoid impacts to unaltered vegetation and soils. A cultural resources investigation would be conducted prior to the

construction of traps and temporary holding facilities. Refer to the SOPs (Part II) for more detailed information.

A notice of intent to impound would be made public prior to the gather. Branded and/or claimed horses would be transported to a temporary holding facility. Ownership would be determined under the estray laws of the State of Nevada by a Nevada Brand Inspector. Collection of gather fees and any appropriate trespass charges would be collected per BLM policy and regulation.

A veterinarian would be on call for the duration of the gather to provide recommendations to Wild Horse and Burro Specialists for care or euthanasia of sick or injured wild horses. Refer to Part II in these Standard Operating Procedures for more information about the euthanasia policy.

Precautions would be taken to ensure that young or weak foals are safely gathered and cared for appropriately. If a foal is determined to be an orphan, qualified adopters would be contacted immediately to provide proper care for the foal. Milk replacer formula and electrolytes would be available to care for orphan foals if necessary.

C. Selection Criteria

Wild Horse and Burro Specialists would determine sex, age, color and assess animal health (pregnancy/parasite loading/physical condition), sort individuals by age, size, sex, temperament and/or physical condition, and select horses to be released to the complex. The National Selective Removal Policy, *Washington Office, IM 2005-206, Gather Policy and Selective Removal Criteria for Wild Horses* would be adhered to, to the extent possible, when selecting wild horses to be released back to the HMA and selecting wild horses to be removed. In general, ". . . close attention [will] be given to the post-gather on-the-range herd sex ratio and age structure to assure a healthy, sustainable population." In accordance with this Selective Removal Policy, the following age criteria will be followed to the extent possible:

Age Class -Five Years and Younger: Wild horses five years of age and younger should be the first priority for removal and placement into the national adoption program.

Age Class - Six to Fifteen Years Old: Wild horses six to fifteen years of age should be removed last and only if management goals and objectives for the herd cannot be achieved through the removal of younger animals.

Animals encountered during gather operations should be released if, in the opinion of the Authorized Officer, they may not tolerate the stress of transportation, preparation, and holding but would survive if released. Older animals in acceptable body condition with significant tooth loss and/or excessive tooth wear should also be released. Some situations, such as removals from private land, total removals, or emergency situations require exceptions to this.

Age Class Sixteen Years and Older: Wild horses aged sixteen years and older should not be removed from the range unless specific exceptions prevent them from being turned back and left on the range.

The wild horse populations within the gather area would be managed as healthy, self-sustaining populations in balance with multiple uses and the productive capacity of their habitat. With the future development of Herd Management Area Plans (HMAP) or Population Management Plans (PMP), TFS Wild Horse and Burro Specialists would develop more specific objectives for the areas. At this time, objectives for the gather and the HMAs includes the following:

- Preserve and maintain healthy, viable wild horse populations that will survive within the Complex's HMA boundaries when elements of the habitat are limiting due to uncontrollable and unforeseeable environmental influences to the herd;
- Reduce concentrations of wild horses in the vicinity of U.S. Highway 6;
- Manage the Stone Cabin HMA population to preserve and enhance present physical and biological characteristics, particularly the "Stone Cabin Greys;"
- Remove all wild horses from outside the Reveille HMA boundaries.

D. Data Collection

Wild Horse and Burro Specialists would be responsible for collecting population data. The extent to which data is collected may vary among the field offices to meet specific needs pertaining to each HMA.

Wild stallion from the Paymaster Herd preparing to have blood drawn, October 2006.

1) Blood Samples:

Blood samples would be collected to analyze genetic health of wild horses (genetic diversity, historical origins, unique markers, and norms for the population). The samples would be collected from the breeding population of the horses selected for release into the Complex.

A minimum sample size of 25 blood samples would be collected for horses selected for release onto each HMA. A sample is defined as the collective blood for an individual animal (two tubes per horse). Blood would be drawn from both mares and studs in a ratio similar to the sex ratio released. Age would not be a defining factor in determining which animals to sample.

The blood test would examine 29 systems (17 typing and 12 DNA). The data would be compared to similar data from both domestic and other wild horse populations. The primary value of this initial data is a baseline against which future samples can be compared to identify genetic drift and any narrowing diversity through inbreeding. A sample of DNA would be preserved (frozen) for each horse tested. Blood samples would be sent to Dr. Gus Cothran of the Texas A&M University for analysis. A veterinarian or other qualified personnel would draw blood.

Blood samples may be taken for the purposes of furthering genetic ancestry studies and incorporation into the Herd Management Area Plans (HMAPs) or Population Management Plans (PMPs) which will be developed for each HMA.

2) **Herd Health and Viability Data**
Data related to age, sex, color, overall health, pregnancy, or nursing status would be collected from each animal captured. The sex and age of each animal selected for release would be recorded during sorting procedures at the holding facility. An estimate of the number, sex and age of horses evading capture would also be recorded.

Information on reproduction and survival would be collected to the extent possible, through documentation of the wild horses captured during the gather, and the age of those released following the gather.

3) **Characteristics:** Color and size of the animals would be recorded. Any characteristics as to type (similarities to domestic breeds) would be noted, if determined. The genetic analysis would provide a comparison of domestic breeds with the wild horses sampled. Any incidence of negative genetic traits (parrot mouth, club foot etc.) or other abnormalities would be noted as well. A representative population of wild horses depicting historical and desired characteristics would be selected for release.

4) **Condition Class:** A body condition class score would be recorded based on the Henneke System (attached). This would be recorded for the population in general and/or for specific animals if necessary.

5) **Other Data:** Other data may be collected as determined by the Authorized officer or Wild Horse and Burro Specialists.

The Henneke Condition Class Score:

H-4760-1 - CONDUCTING COMPLIANCE CHECKS FOR BLM'S WILD HORSE AND BURRO ADOPTION PROGRAM - (Public) Illustration 8

CONDITION	NECK	WITHERS	LOIN	TAILHEAD	RIBS	SHOULDER
1 POOR	Bone structure easily noticeable	Bone structure easily noticeable	Spinous processes project prominently	Tailhead (pinbones) and hook bones projecting prominently	Ribs projecting prominently	Bone structure easily noticeable
	Animal extremely emaciated; no fatty tissue can be felt					
2 VERY THIN	Faintly discernible	Faintly discernible	Slight fat covering overbase of spinous processes. Transverse processes of lumbar vertebrae feel rounded. Spinous processes prominent.	Tailhead prominent	Ribs prominent	Faintly discernible
	Animal emaciated					
3 THIN	Neck accentuated	Withers accentuated	Fat buildup halfway on spinous processes but easily discernible. Transverse processes cannot be felt.	Tailhead prominent but individual vertebrae cannot be visually identified. Hook bones appear rounded, but still easily discernible. Pin bones not distinguishable.	Slight fat cover over ribs. Ribs easily discernible.	Shoulder accentuated
4 Moderately THIN	Neck not obviously thin	Withers not obviously thin	Negative crease along back	Prominence depends on conformation. Fat can be felt. Hook bones not discernible.	Faint outline discernible	Shoulder not obviously thin
5 MODERATE	Neck blends smoothly into body	Withers rounded over spinous-processes	Back level	Fat around tailhead beginning to feel spongy	Ribs cannot be visually distinguished but can be easily felt	Shoulder blends smoothly into body
6 Moderately FLESHY	Fat beginning to be deposited	Fat beginning to be deposited	May have slight positive crease down back	Fat around tailhead feels soft	Fat over ribs feels spongy	Fat beginning to be deposited
7 FLESHY	Fat deposited along neck	Fat deposited along withers	May have positive crease down back	Fat around tailhead is soft	Individual ribs can be felt, but noticeable fat fills between ribs	Fat deposited behind shoulder
8 FAT	Noticeable thickening of neck	Area along withers filled with fat	Positive crease down back	Tailhead fat very soft	Difficult to feel ribs	Area behind shoulder filled in flush with body
			Fat deposited along inner buttocks			
9 Extremely FAT	Bulging fat	Bulging fat	Obvious positive crease down back	Building fat around tailhead	Patchy fat appearing over ribs	Bulging fat
			Fat along inner buttocks may rub together. Flank filled in flush.			

Hoof Condition:

BLM MANUAL Rel. 4-168 6/17/04

II. STANDARD OPERATING PROCEDURES FOR WILD HORSE GATHERS

The following procedures for gathering and handling wild horses and burros apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations would be conducted in conformance with the Wild Horse and Burro Aviation Management Handbook (March 2000).

Prior to any gathering operation, the BLM would complete a pre-capture evaluation of existing conditions in the gather area(s), which would include animal condition, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with Wilderness Study Area boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during gather operations. If it is determined that capture efforts necessitate the services of a veterinarian, one would be obtained before capture would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the capture and handling of animals to ensure their health and welfare is protected.

Trap sites and temporary holding sites would be located to reduce the likelihood of undue injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites will be located on or near existing roads.

The following procedures and stipulations would be followed to ensure the welfare, safety and humane treatment of wild horses and burros in accordance with the provisions of 43 CFR §4700, and safety of the public and government personnel.

A. Capture Methods That May Be Used in the Performance of a Helicopter Gather

1. Helicopter Drive Trapping

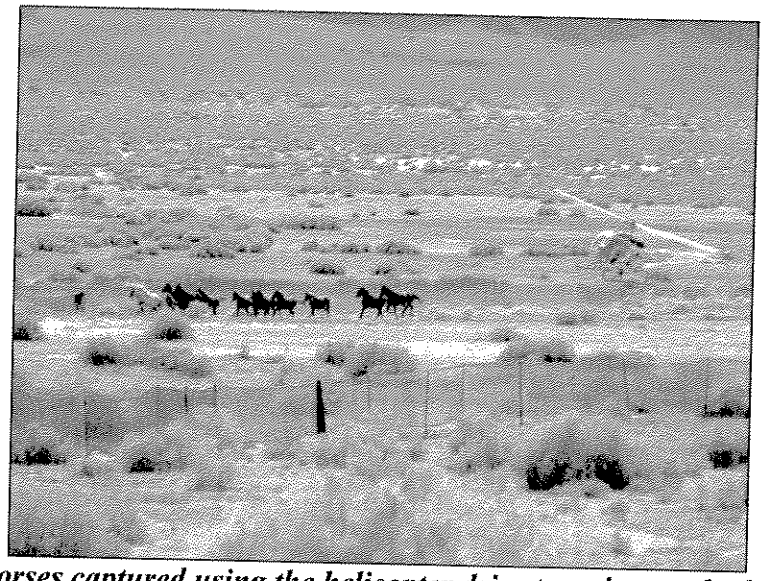
   The Helicopter Drive Trapping method employed for wild horse capture operations requires that horses (or burros) be herded to a trap of portable panels and occasionally to ropers who, after roping the animal, will bring it to the trap or to a stock trailer for transport to the trap. Gathering would be conducted by using agency personnel or contractors experienced in the humane capture and handling of wild horses (or burros). The trap is constructed of portable steel panels consisting of round pipe. Wings are constructed from the ends of the panel trap to aid in funneling horses into the trap. The wings are constructed of natural jute, (or similar netting which will not injure a horse), which is hung on either trees or long steel posts. This type of wing forms a very effective visual barrier to the horses that they typically will not run through. When the trap is ready for use, a helicopter moves horses toward the trap and into the wings.

   The following stipulations apply:

   a) A minimum of two saddle horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the BLM. Under no circumstances shall animals be tied down for more than one hour.

b) The Contractor shall assure that bands remain together, and that foals shall not be left behind and orphaned.

c) Domestic saddle horses may be used as a pilot (i.e. parada) horse to lead the wild horses into the trap. Individual ground hazers may also be used to assist in the gather.



Horses captured using the helicopter drive trapping method, Silver Peak HMA, October 2006.

Helicopter herds animals into the trap where they are sorted by sex, then taken to a larger set of holding corrals to be aged, have their blood drawn, etc.

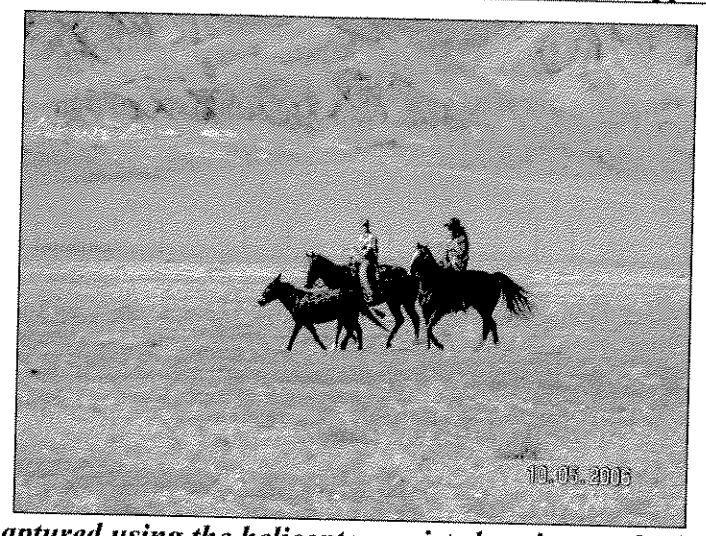
2. Helicopter-Assisted Roping

This capture method involves utilizing a helicopter to herd wild horses or burros to ropers. The following stipulations apply:

a) Under no circumstances shall animals be tied down for more than one hour.

b) Roping shall be performed in such a manner that bands will remain together. Foals shall not be left behind or orphaned.

c) Wild horses roped may be led to the trap or may be loaded into stock trailers in the field and transported to the trap or holding corrals.



Mule captured using the helicopter-assisted roping method, Silver Peak HMA, October 2006.

Helicopter herds animals toward crew members. After animals are roped, they are allowed to walk, trot, gallop etc., as the crew moves the animals towards the road and waiting stock trailers.

3. Bait Trapping

   This capture method involves utilizing bait (water or feed) to lure wild horses or burros into a temporary trap. The following stipulations apply:

   a) Finger gates shall not be constructed of materials that may be injurious to animals such as; "T" posts, sharpened willows, etc.

   b) All trigger and/or trip gate devices must be approved by the BLM prior to capture of animals.

   c) Traps shall be checked a minimum of once every 10 hours.

B. Trapping and Care

The primary concern is for the safe and humane handling of all animals captured. All capture attempts shall incorporate the following:

1. All trap and holding facility locations must be approved by the BLM prior to construction. The Contractor may also be required to change or move trap locations as determined by the BLM.

2. All traps and holding facilities not located on public land must have prior written approval of the land owner. Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc.).

3. The rate of movement and distance the animals travel shall not exceed limitations set by the BLM, who will consider terrain, physical barriers, weather, condition of the animals, and other factors.

4. All traps, wings, and holding facilities shall be constructed, maintained and operated to handle animals in a safe and humane manner and be in accordance with the following:

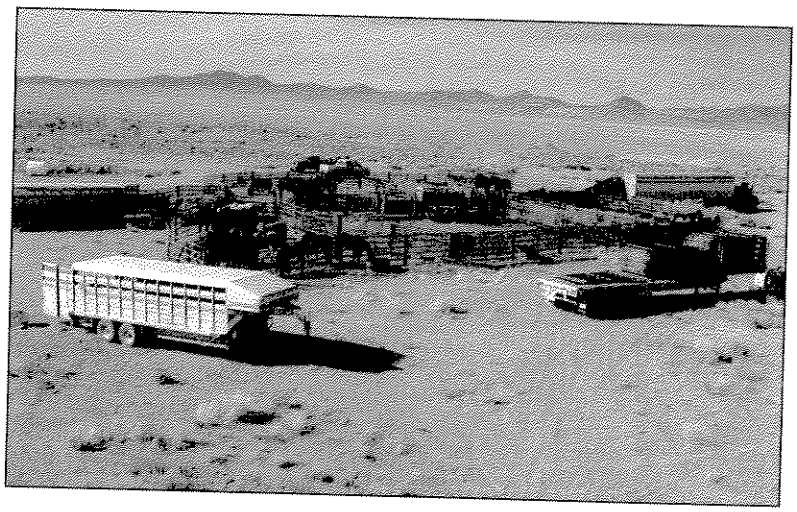
   a) Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.

   b) All loading chute sides shall be a minimum of 6 feet high and shall be fully covered with plywood or like material.

   c) All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet for burros and 1 foot to 6 feet for horses. The location of the government furnished portable restraining chute used to restrain, age, or to provide additional care for animals shall be placed in the runway in a manner as instructed by or in concurrence with the BLM.

   d) All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, snow fence etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for burros and 2 feet to 6 feet for horses. Eight linear feet of this material shall be capable of being removed or let down to provide a viewing window.

   e) All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.



Holding Corrals used during the Fish Creek Complex gather in January 2006. These corrals were located at a gravel pit on Highway 6 east of Tonopah.

5. No fence modifications will be made without authorization from the BLM. The Contractor shall be responsible for restoration of any fence modification, which he has made.

6. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor shall be required to wet down the ground with water.

7. Separate pens within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and/or injured animals, and strays from the other animals. Animals shall be sorted as to age, number, size, temperament, sex and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age, sex or other necessary procedures. In these instances, a portable restraining chute will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals selected to be released back into the wild. In areas requiring one or more trap sites, and when a centralized holding facility is utilized, the Contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking for later segregation will be at the discretion of the BLM.

8. The Contractor shall provide animals held in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Separate water troughs shall be provided at each pen where animals are being held. Water troughs shall be constructed of such material (e.g. rubber, galvanized metal with rolled edges, rubber over metal) so as to avoid injury to the animals. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than 2 pounds of hay per 100 pounds of estimated body weight per day.

9. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.

10. The contractor/BLM shall restrain sick or injured animals for medical treatment, if necessary. A veterinarian may be called to make a diagnosis and final determination. Euthanasia shall be done by the most humane method available. Authority for humane euthanasia of wild horses or burros is provided by the Wild Free-Roaming Horse and Burro Act of 1971, Section 3(b)(2)(A), 43 CFR 4730.1, BLM Manual 4730 - Euthanasia of Wild Horses and Burros and Disposal of Remains, and is in accordance with BLM policy as expressed in Washington Office Instructional Memorandum No. 2006-023.

    Any captured horses that are found to have the following conditions may be considered for humane euthanasia:

    a) displays a hopeless prognosis for life;
    b) suffers from a chronic or incurable disease, injury or serious physical defect; (includes

severe tooth loss or wear, severe club feet, and other severe acquired or congenital abnormalities)

c) would require continuous treatment for the relief of pain and suffering in a domestic setting;

d) is incapable of maintaining a Henneke body condition score greater than two, in its present environment;

e) has an acute or chronic injury, physical defect or lameness that would not allow the animal to live and interact with other horses, keep up with its peers or exhibit behaviors which may be considered essential for an acceptable quality of life constantly or for the foreseeable future;

f) suffers from an acute or chronic infectious disease where State or Federal animal health officials order the humane destruction of the animal as a disease control measure.

Additionally, if an animal suffers from any of the conditions listed above, but is not in acute pain, the Authorized Officer has the authority to euthanize the animal in a humane manner after consulting with a veterinarian and notifying the district or field office manager of the decision. The Authorized Officer will prepare a written statement documenting the advice of the veterinarian and the action taken and will promptly notify the state office and the Wild Horse and Burro National Program Office. Older wild horses and burros encountered during gather operations should be released if, in the opinion of the authorized officer, the animals would not tolerate the stress of transportation, adoption preparation, or holding, but may survive if returned to the range. This may include older animals with significant tooth loss that have a Henneke body condition score greater than two.

The Authorized Officer will determine if injured animals must be euthanized and provide for euthanasia of such animals. The contractor/BLM may be required to dispose of the remains as directed by the Authorized Officer.

The remains of animals that die or must be euthanized as a result of any infectious, contagious, or parasitic disease will be disposed of by burial to a depth of at least 3 feet.

The remains of animals that must be euthanized as a result of age, injury, lameness, or non-contagious disease or illness will be disposed of by removing them from the capture site or holding corral and placing them in an inconspicuous location to minimize visual impacts. Remains will not be placed in drainages regardless of drainage size or downstream destination.

11. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the BLM for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the BLM. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the BLM. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours. Animals that are to be released back into the capture area may need to be transported back to the original trap site. This determination will be at the discretion of the BLM.

12. Branded or privately owned animals captured during gather operations will be handled in accordance with state estray laws and existing BLM policy.

C. Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide BLM with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.

2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.

3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the vehicle floor. Single deck tractor-trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have at the minimum a 5 foot wide swinging gate. The use of double deck trailers is unacceptable and will not be allowed.

4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer, which is capable of sliding either horizontally of vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of the trailer must be strong enough that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the BLM.

5. Floors of tractor-trailers, stock trailers, and the loading chute shall be covered and maintained with wood shavings to prevent the animals from slipping.

6. Animals to be loaded and transported in any trailer shall be as directed by the BLM and may include limitations on numbers according to age, size, sex, temperament, and animal condition. The following minimum square feet per animal shall be allowed in all trailers:

11 square feet/adult horse (1.4 linear feet in an 8 foot wide trailer)
8 square feet/adult burro (1.0 linear feet in an 8 foot wide trailer)
6 square feet/horse foal (0.75 linear feet in an 8 foot wide trailer)
4 square feet/burro foal (0.50 linear feet in an 8 foot wide trailer)

7. The BLM shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of captured animals. The BLM shall provide for any brand and/or inspection services required for the captured animals.

8. If the BLM determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. Special Stipulations

1. Private landowners or the proper administering agency(s) would be contacted and authorization obtained prior to setting up traps on any lands which are not administered by BLM. Wherever possible, traps would be constructed in such a manner as to not block vehicular access on existing roads.

2. Traps would be constructed so that no riparian vegetation is contained within them. No vehicles would be operated on riparian vegetation or on saturated soils associated with riparian/wetland areas.

3. Gathers would not be conducted during peak foaling season which is March 1 to June 30 to reduce the chance of injury or stress to pregnant mares or mares with young foals.

4. The helicopter would avoid eagles and other raptors, and would not be flown repeatedly over any identified active raptor nests. No unnecessary flying would occur over big game on their winter ranges or active fawning/calving grounds during the period of use.

5. Standard operating procedures in the site establishment and construction of traps will avoid adverse impacts from trap sites, construction, or operation to wildlife species, including threatened, endangered, or sensitive species.

6. Archeological clearance by a BLM archaeologist or District Archeology Technician of trap sites, holding corrals, and areas of potential effects would occur prior to construction of trap sites and holding corrals. If cultural resources were encountered, those locations would not be utilized unless they could be modified to avoid impacts. Due to the inherent nature of wild horse gathers, trap sites and holding corrals would be identified just prior to use in the field. As a result, Cultural Resource staff would coordinate with Wild Horse and Burro personnel to inventory proposed locations as they are identified, and complete required documentation.

7. When gathering wild horses from within Wilderness Study Areas (WSAs), applicable policy will be strictly adhered to. Only approved roads will be traveled on. A Wilderness Specialist or designee would be present to ensure that only inventoried ways or cherry stemmed roads are traveled on by vehicles within the WSA.

8. Every effort will be made to construct trap sites outside of WSA boundaries. Should the need arise to construct a trapsite within a WSA to safely and effectively gather wild horses, the

trap corrals would be built in the road. Wings of the trap, constructed of jute netting and steel posts may extend into the WSA. No motorized or mechanized equipment would be used to construct the wings of the trap, and all materials would be carried, constructed, and deconstructed by hand.

E. Safety and Communications

1. The Contractor shall have the means to communicate with the BLM and all contractor personnel engaged in the capture of wild horses and burros utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective, the government will take steps necessary to protect the welfare of the animals.

2. The proper operation, service, and maintenance of all contractor-furnished property is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor-furnished equipment which, in the opinion of the BLM, violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the BLM.

3. All accidents occurring during the performance of any delivery order shall be immediately reported to the BLM.

4. The Contractor must operate in compliance with all applicable Federal, State, and Local laws and regulations.

5. Fueling operations shall not take place within 1,000 feet of animals.

F. Public Participation

Opportunities for public viewing (i.e. media, interested public) of gather operations would be made available to the extent possible; however, the primary consideration will be to protect the health and welfare of the animals being gathered. The public must adhere to guidance from the on site BLM representative. It is BLM policy that the public will not be allowed to come into direct contact with wild horses and burros held in a BLM facility. Only BLM or contractor personnel may enter the trap site or temporary holding facility corrals. The general public may not directly handle the animals at any time or for any reason during gather operations.

G. Responsibility and Lines of Communication

The Contracting Officer's Representative, and Project Inspectors from the Battle Mountain Field Office and Tonopah Field Station, will have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. All employees involved in the gathering operation will keep the best interest of the animals at the forefront at all times.

Stone Cabin Complex Interested Party List

Appendix B

NEVADA CATTLEMENS ASSOCIATION
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COMM FOR PRESERVATION OF WILD HORSES
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CARSON CITY, NV 89704

US FOREST SERVICE TONOPAH RANGER
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TONOPAH, NV 89049

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BISHOP CA 93514

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ESMERALDA COUNTY COMMISSIONER
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WILD HORSE ORGANIZED ASSISTANCE
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SIERRA CLUB
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MR. AND MRS. JOE B. FALLINI JR
TWIN SPRINGS RANCH
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TONOPAH, NV 89049

DR. JAMES R. MARBLE
NYE CO. DEPT. OF NAT RES. FED FAC.
PO BOX 1767
TONOPAH, NV 89049

DURK PEARSON
DOUBLE HELIX RANCH
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TONOPAH, NV 89049

MIKE JOHNS
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WELLINGTON, NV 89444

BONNIE AND CHUCK MATTON
WILD HORSE PRESERVATION LEAGUE
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DAYTON, NV 89403

US FOREST SERVICE
STEVEN WILLIAMS, DISTRICT RANGER
AUSTIN/ TONOPAH RANGER DISTRICTS
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AUSTIN, NV 89310

BRADFORD HARDENBROOK
NEVADA DEPARTMENT OF WILDLIFE
SOUTHERN REGION
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LAS VEGAS, NV 89108

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MR. AND MRS DAVE MURPHEY
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TONOPAH, NV 89049

Stone Cabin Complex Interested Party List

Appendix B

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