Interdisciplinary Team Evaluation
Callaghan Complex Herd Management Areas (HMAs)

Mount Lewis Field Office
Battle Mountain District
November 20, 2008

Due to escalating issues within the Bald Mountain, Callaghan, and Rocky Hills HMAs (Callaghan Complex), an interdisciplinary team (IDT) evaluated current animal and resource conditions during October and November 2008. The current overpopulation of wild horses coupled with the effects of continuing drought is contributing to deteriorated range conditions and is placing the animals at risk of starvation during winter 2008-2009. Forage in the winter range areas is minimal and insufficient to support the current population of wild horses. Based on the IDT's review, a gather to remove excess wild horses is critically needed prior to January 2009.

The MLFO has completed an Environmental Assessment for this gather, which was sent to the interested public for 30 day comment period on September 15, 2008. MLFO staff are prepared to begin a gather after issuance of the Finding of No Significant Impact (FONSI) and Decision, once approval for the gather is granted.

The IDT's site-specific findings follow. For additional information, refer to photographs located in the back of this evaluation which reflect current wild horse, range and riparian habitat conditions in the Callaghan Complex.

1. Current Wild Horse Population

- The current estimated wild horse population of the Callaghan Complex is 1,477 animals in excess of the low Appropriate Management Level (AML), and is more than 5 times the low AML.
- Most recent helicopter census completed in March 2008.
- It has been six years or more since the HMAs within the Complex were last gathered.

The following table provides information regarding the AML, current population, size and last gather conducted for the HMAs within the Complex.

Callaghan Complex AML, Population and Gather Information

HMA	AML Range	Est. 2008 Population	% of low AML	Acreage of HMA	Last Gather Completed
Callaghan	134-237	982	733%	156,230	2002
Rocky Hills	86-143	166	193%	84,315	1999
Bald Mountain	129-215	607	471%	139,879	1981
Outside HMA, Simpson Park Mtns.	0	40	NA	NA	2005
Outside HMA USFS	0	13	NA	NA	NA
Cedar's Pasture (South Shoshone HMA)	0	18	NA	14,641	2002
Total	**349-595**	**1,826**	**523%**	**395,065**	

2. CURRENT RESOURCE CONDITIONS

Climate

Continued drought conditions prevail in the area.

- 2008 precipitation is 47% of normal. The UNR Gund Ranch Weather Station reports 4.13 inches of precipitation was received through October 31, 2008.
- Precipitation during the March-June 2008 growing season was 39% of average, only 1.68 inches of precipitation was received.
- These areas have experienced drought conditions during 7 of the past 14 years.

Vegetation Condition

Consecutive years of drought coupled with overpopulation of wild horses has significantly reduced forage availability throughout all HMAs. Large expanses of winter range are degraded due to historic overuse by wild horses and livestock. Existing forage is not adequate to support the current population of wild horses in a healthy condition through the coming winter within the Bald Mountain and Callaghan HMAs, particularly if moderate to heavy snowfall occurs.

- 2008 vegetation production in estimated to be less than 10-20% of the potential.
- Current year's production of perennial grasses is estimated at only 10-20 pounds per acre throughout most low elevations foothills and valley bottoms (wild horse winter range).
- Perennial grass species consist mainly of Sandberg bluegrass or bottlebrush squirreltail.
- Key species such as Indian ricegrass and bluebunch wheatgrass are mostly absent.
- Many of the grass plants are caged in shrubs and unavailable to grazing animals.

The perennial grasses, which are present, exhibit low vigor and low production and are often pedestalled in the interspaces between shrubs; soils are bare, compacted, or characterized by erosion pavement. Some sites are completely denuded of perennial grasses, and support halogeton and other invasive annual weeds.

Due to the 1999 Trail Canyon Fire Rehabilitation seeding, forage is adequate within the Rocky Hills HMA. Native rangeland exhibits poor production and lack of key perennial grasses, especially where wild horses concentrate. Refer to the photos of upland vegetation conditions for all three HMAs.

Rangeland Health Assessments completed for the allotments within the Complex between 2002-2005 found that many of the Resource Advisory Council (RAC) Standards for Rangeland Health were not being met.

- Wild horses were identified as causal or significant causal factors for Standard 1 (Upland Sites), Standard 2 (Riparian and Wetland Sites), Standard 3 (Habitat) and Standard 5 (Healthy Wild Horses and Burros) not being met primarily due to overpopulation and heavy and damaging use of the habitat by historic and current wild horse populations.
- Livestock were also identified as causal or significant causal factors for RAC Standards not being met, however substantial reductions to permits and other management changes were implemented. Wild horse AMLs were also established but have not been achieved through gathers.

Riparian Condition

- Rangeland Health Assessments identified wild horses as causal or significant causal factors for Standard 2 (Riparian and Wetland Sites) not being met due to utilization and trampling of riparian habitat by an overpopulation of wild horses.
- Many springs are being heavily used and degraded by large numbers of wild horses.
- Monitoring conducted within these HMAs in 2008 indicates that wild horses are continuing to damage important riparian habitats.
- Refer to the photos of riparian areas within the Complex.

Water Availability

Water is generally not limiting to wild horses when populations are within the established AML range, except in a few locations. With the drought conditions experienced in the last few years, many springs are dry, and wild horses are trailing long distances to water, putting increased pressure on these remaining sources (Refer to photos 11, 12, 14, 18, 19 and 20).

Due to continuing drought and the current overpopulation of wild horses, water is limiting in several locations within the Complex.

- Callaghan HMA -- Horses are traveling outside the HMA in the Austin Allotment (west side) to private land on the Reese River to access water. Waters on the east side of the HMA (Grass Valley Allotment) are very limited. Rosebush Creek is dry at this time.
- Bald Mountain HMA -- many springs are dry, and wild horses are trailing long distances to water, putting increased pressure on these remaining sources.

Water is the limiting factor for the horses in the Rocky Hills HMA.

- Wild horses concentrating in the HMA, not utilizing the entire HMA or waters available.
- Water currently available from Denay Pond, Cadet Trough (minimal), Dug Out Trough (minimal), Fye and Pat Canyon, and Geyser Creek (low flow/puddles). Water is also available at Indian Springs, but horses are not using the area.

3. CURRENT ANIMAL CONDITION

Wild horses averaged Henneke body condition score (BCS) 4 during aerial census completed in March 2008. Numerous Thin horses were observed on the Grass Valley side of the Callaghan HMA with backbone and ribs clearly visible (BCS-3). Refer to photos 6-9.

Field monitoring of the Bald Mountain HMA in October 2008 indicates that wild horses are already in less than optimal condition going into winter – estimated BCS 4 with accentuated shoulders, necks and hips. Refer to photos 15 and 16.

Lack of forage on the winter range led to heavy browsing of rabbitbrush and other shrubs by wild horses during the 2007-2008 winter grazing season. Large numbers of horses also moved outside their HMAs in search of forage and water. Approximately 40 wild horses wintered on the Silver Creek Ranch private land last winter.

Wild horses are currently moving outside of the Callaghan and Bald Mountain HMA boundaries to obtain forage, water, and space.

Given the lack of forage available to wild horses on the winter range, body condition is expected to decline rapidly over the next few months depending on the severity of the winter. Suffering and death is expected without a gather to achieve the established AML.

Note: During the winter 2008 gather of Roberts Mountain HMA, deep, crusted snow covered the degraded low elevation winter range, and 90% of the horses were thin or emaciated when gathered. (Refer to photos 21-23).

- Follow-up helicopter census in September 2008 found the animals remaining in the Roberts Mountain HMA still Thin and Moderately Thin (BCS 3-4).
- MLFO staff anticipates similar or worse conditions throughout Bald Mountain and Callaghan HMAs this winter.

4. WILDLIFE HABITAT CONDITION/ISSUES AND CONCERNS

Sage grouse (yearlong), pronghorn (summer), and mule deer habitat (yearlong) habitat has deteriorated during the drought and from overuse by both livestock and wild horses. Refer to the photos of upland and riparian habitat.

Sage grouse

- Perennial grass nesting and early brood rearing cover in lower elevation Wyoming big sagebrush range sites is lacking with current year's production estimated at 10-20 pounds to the acre.
- Forb production important for egg development has been greatly reduced in the past few years due to the lack of precipitation (39% of normal) during the growing season.
- Most riparian areas in the mountain areas important for sage grouse brood rearing in summer months are all functional at risk from a loss of riparian vegetation and trampling by both cattle and wild horses in the summer.

Pronghorn Antelope

- Pronghorn use within the Complex has been affected by lack of forbs and pronghorn use has been greatly reduced within the Callaghan and Bald Mountain HMAs within the past few years.
- The areas used by wild horses in the Complex are the same areas used by pronghorn for spring and summer ranges, therefore any deterioration of the wild horse winter range will directly affect pronghorn spring and summer ranges.

Mule Deer

- Mule deer depend on native shrubs (serviceberry, currents, sagebrush, and rabbitbrush) for winter nutrition and use the same wintering areas as wild horses within the Complex.
- The lack of herbaceous forage due to drought and an overpopulation of wild horses will increase competition and use on browse species during a hard winter. Preferred browse species will be taken by horses, leaving the less preferred browse, which has the least nutrition for mule deer.

Riparian Habitat

- Re-growth of important riparian vegetation that normally will occur from mid-July until late August and frequently into September (depending on elevation) did not occur over most of the Complex due to the overpopulation of wild horses and continuing drought conditions.

5. APPROPRIATE ACTIONS TAKEN CONCERNING LIVESTOCK USE

All grazing allotments within the Callaghan Complex have been evaluated and substantial livestock reductions made through Final Multiple Use Decisions (FMUDs) completed 1995-2005. The following table summarizes the information.

Livestock Decisions and Permit Reductions – Callaghan Complex

HMA	Allotment	Decision Year	% reduction of authorized livestock AUMs	Current permit % of historic preference
Callaghan	Austin	1995 FMUD 2007 Permit Renewal	57% Other*	33%
	Grass Valley	1995 transfer 2002 FMUD	27% Other*	68%
	Simpson Park	2005 FMUD	43%	40%
Bald Mountain	Carico Lake	2005 FMUD	26%	71%
Rocky Hills	Grass Valley	1994 transfer 2002 FMUD	16% 1%	70%
	JD	1997 transfer 2004 FMUD	32% Other*	45%

*Other management changes implemented through these FMUDs included suspension of year round livestock grazing, establishment of objectives, elimination or reduction of hot season use of riparian areas, and grazing systems which reduce critical growth season use.

Additional voluntary reductions in use by the livestock operators as follows:

- Grass Valley Allotment (Callaghan HMA): 17-58% of authorized since 2002.
- Grass Valley Allotment (Rocky Hills HMA): 56-86% of authorized since 2002.
- Austin Allotment 13-35% of authorized since 2003.
- JD Allotment: 69-93% of authorized since 2004.

The current situation reflects substantial reductions of livestock from permitted use due to resource conditions and wild horse population.

- Current permits reflect 33-71% of the historic preference.
- Drought letter sent to MLFO permittees May 2008 encouraging ranchers to take appropriate action in response to continuing drought conditions.
- Estimated 2008 Actual Use (to date) by livestock within the Callaghan Complex HMAs is 12,173 AUMs, or 51% of the amount permitted in these areas (current wild horse AUMs for 2008 within the Callaghan Complex total 21,912 AUMs).
- No livestock remain within the Callaghan or Bald Mountain HMAs (less than 10 head of cattle in Bald Mountain HMA). Permittees ran few animals and removed them early due to poor conditions on the range, and competition with wild horses.
- Permittees in Rocky Hills HMAs are hauling water.

6. ACTIONS TAKEN BY MLFO CONCERNING WILD HORSE MANAGEMENT

- AMLs established for all of the HMAs in the Callaghan Complex 1995-2005.
  The following table displays the history of AML establishment within the Complex.

Callaghan Complex Wild Horse Appropriate Management Levels and Populations*

HMA	Allotment	AML year	AML – Wild Horses	2008 Population
Callaghan	Austin	1995 FMUD	35	585
	Grass Valley	2002 FMUD	98-163	380
	Simpson Park	2005 FMUD	14-39	18
	Total		147-237	983
Bald Mountain	Carico Lake	2005 FMUD	129-215	607
Rocky Hills	Grass Valley	2002 FMUD	18-30	0
	JD	2004 FMUD	86-143	166
Total			349-595	1,756

*This table does not include the gather areas outside of the HMAs such as Simpson Park Mountains or USFS.

- *Shoshone Complex Wild Horse Gather Environmental Assessment NV062-07-104*, issued April 2007 included analysis for Bald Mountain HMA.
  - Due to other emergency gathers and State gather needs, MLFO conceded to post pone Bald Mountain HMA gather to be completed with Callaghan HMA.
- March 2008 -- aerial census completed. Wild horses thin coming out of winter.
- April 2008. Field tour conducted of the Callaghan Complex by Susie Stokke (NSO), Cathy Barcomb (Nevada Wild Horse Commission), and APHIS Veterinarian Al Kane. Observed rangeland and wild horse conditions within the Callaghan Complex.
- Spring-summer-fall 2008 -- close monitoring of animal, forage, water, and resource conditions.
- June 2008 – installed additional water storage at Cadet Spring (Rocky Hills HMA).
- June 2008 – removed Tonkin fire rehabilitation fence to increase amount of forage and water available to wild horses (Rocky Hills HMA).
- *Callaghan Complex Wild Horse Gather Environmental Assessment NV062-08-134*, issued September 2008.
  - No comments received during public review. MLFO ready to issue FONSI/Decision when gather approval is received. EA analyzed Fertility Control, Release of 60% studs, or Gather Only.
- November 2008. Field Tour conducted with Boyd Spratling (WHB Advisory Board), Steve Foree (NDOW), and Rod Davis (UNR Coop. Ext). Winter range and wild horse condition observed within the Callaghan and Bald Mountain HMAs.
- MLFO continued to monitor rangeland condition, water availability, wild horse condition and 2008 vegetation production through November 2008.

7. PROPOSED MANAGEMENT ACTIONS

- **Option 1 (Preferred Option): Implement the Proposed Action as identified in the Callaghan Complex Gather Plan/EA issued September 15, 2008**

  Include the entire Callaghan Complex: Bald Mountain, Callaghan, and Rocky Hills HMA. This would also include the gather of animals from the rest of the Complex outside the HMA boundaries throughout the Simpson Park Mountains and USFS; and removal of approximately 18 wild horses from the Cedar's Pasture managed for 0 wild horses.

  A gather would be completed December through January. Selective removal gather, capture approximately **90-95%** of the population with implementation of fertility control (PZP-22). The desired sex ratio of the animals remaining on the range would be 50% mares and 50% studs. Remove as few older animals as possible while achieving the low AML.

  A preliminary gather plan environmental assessment was prepared in September 2008. The EA was made available to the public for a 30-day review and comment period. The comment period closed on October 15, 2008. The EA has also been submitted to HSUS for review (fertility control). Other alternatives analyzed in detail in the EA include:

  - Alternative 1: Achieve AML, modify sex ratios to 60:40 favoring males.
  - Alternative 2: Achieve AML, Gather Only (No Fertility Control)
  - Alternative 3: No Action Alternative (No Wild Horse Gather)

Option 1: Gather numbers and Costs

HMA	Gather #	Remove #	Fertility Control	Est. Contract Cost
Bald Mountain	577	481	50	$197,462
Callaghan	933	848	50	$297,700
Rocky Hills	158	80	40	$71,914
Cedar's Pasture (South Shoshone HMA)	18	18	NA	See Callaghan
Outside HMA (USFS)	13	13	NA	See Callaghan
Outside HMA(Simpson Park Mountains)	40	40	NA	See Callaghan
Total	**1,739**	**1,480**	**130-150**	**$567,076**

Of the number of wild horses removed from the range and shipped to Palomino Valley Corrals (or other wild horse facility), approximately **254-275** would be 5 years old or older. No horses 3 years or older would need to be removed from the Rocky Hills HMA to achieve the low AML.

The MLFO has also analyzed the release of **60% studs and 40% mares** as an alternative to fertility control. Implementation of Alternative 1 would reduce the gather cost by the cost to treat 130-150 mares with fertility control.

Both sex ratio modification and implementation of fertility control would result in reduced population growth rates, and extend the need for another gather by 2 or more years (though population modeling showed that sex ratio modification would not result in as large growth rate reductions as fertility control).

- **Option 2: Gather of Callaghan Complex through a "Gate Cut" gather.**
  Gather and remove approximately 1,427 wild horses. No animals would be returned to the range. No fertility control or sex ratio modification would occur. Exclude animals outside of the HMA and USFS.

Option 2: Gather numbers and Costs

HMA	Gather #	Remove #	Fertility Control	Contractor Cost
Bald Mountain	481	481	0	$158,249
Callaghan	848	848	0	$241,614
Rocky Hills	80	80	0	$36,320
Cedar's Pasture	18	18	0	See Callaghan
Total	**1427**	**1,427**	**0**	**$436,183**

The Gate Cut option would result in a reduced gather contract cost by approximately **$131,000** from Option 1.

However, long-term costs would offset this savings because additional older wild horses would be removed from the range and shipped to facilities rather than returned to the range as in a selective removal gather. Approximately **475** horses five years old and older would be gathered and removed, which equates to **220-240** more older horses removed than under Option 1. The additional cost to care for these animals in long-term holding would approximate **$102,000-$111,000** per year.

Additional costs of a Gate Cut gather include:

- The lost opportunity to implement fertility control or sex ratio modification, which would cause AML to be achieved 1-3 years sooner (3-4 years rather than 5-6 years). A gather to achieve AML would be needed within 3-4 years, and if not completed, the population would continue to exceed AML, resulting in rangeland degradation and lost opportunities for rangeland recovery.

- Genetics sampling would not be completed for wild horses released back to the range.

- A gate cut gather would not be consistent with Management Objectives developed for these HMAs or with the Northeastern Great Basin RAC Standards and Guidelines for Healthy Wild horses and Burros.

- **Other Potential Options to Reduce Gather Costs**
  - Delay Rocky Hills HMA gather to summer 2009. Initial cost savings $70,000-80,000. Additional cost to gather after another foaling season approximately $14,000.
  - Request the Gather Contractor to gather Rocky Hills HMA at the same unit cost as the Callaghan or Bald Mountain HMAs during winter 2009, rather than incur additional mobilization costs to gather it next summer. Estimated contract cost savings $25,000.

SUMMARY

Emergency conditions are anticipated this winter throughout the Callaghan Complex. The MLFO has tracked this area as an emerging issue for over a year, anticipating approval to gather the overpopulated HMAs to the established AMLs.

A very high overpopulation of wild horses on the range coupled with ongoing drought and degraded winter range conditions risks large scale deterioration of body condition and death due to starvation should excess wild horses not be removed before heavy snowfall is received this winter. The

magnitude of the potential emergency would be commensurate with the coverage of the winter range with snow.

The MLFO is fully prepared to begin these gathers in a moment's notice, with the issuance of a FONSI/Decision and Notice of Intent to Impound. Approval of this gather before the heart of winter arrives will be easier on the horses as the snow will not be as deep and wild horses are currently in fair/good condition.

RECOMMENDATIONS

Request the funding necessary ($567,076) to gather the Callaghan Complex wild horses through a selective removal capture operation, implement fertility control on 130-150 mares released to the range, and remove approximately 1,480 wild horses.

RATIONALE

The Callaghan Complex needs to be gathered to remove excess wild horses in order to prevent large scale wild horse condition deterioration and suffering. Wild horses came through last winter BCS-3 and 4. Some bands of horses within the Bald Mountain HMA are becoming thin already. Continuing drought conditions have resulted in limited perennial forage for wild horses, especially throughout winter range, and many water sources have gone dry, putting added pressure on remaining waters.

The gather is also needed to halt damage to rangelands and riparian areas by wild horses and promote improvement in rangeland heath for future sustainability of these wild horse herds. The current populations are far in excess of the AMLs established through Multiple Use Decisions 1995-2005. It has been 6 or more years since a gather was conducted in these areas. Most livestock use in these areas has been below permitted levels for many years, and less than 10 cattle remain within the Bald Mountain or Callaghan HMAs.

The gather needs to be conducted as a selective removal in order to capture enough of the population to implement fertility control thereby reducing population growth rates for the next 3 years.

A selective removal gather would also reduce the number of older animals that would have to be removed from the range and cared for in long or short-term holding at substantial costs. Under a selective removal gather strategy, 220-240 fewer horses five years old or older would be removed from the range and require care in long term holding. Though a gate cut gather would initially reduce the gather cost by approximately $130,000, it would be offset by additional holding costs of $102,000-111,000 per year.

CALLAGHAN COMPLEX PHOTOS

Callaghan HMA

Photo 1. Callaghan HMA, Austin Allotment. November 4, 2008. Poor forage production and degraded range outside of the HMA boundaries where wild horses wintered and consumed rabbitbrush last winter (Wyoming big sagebrush plant community).

Photo 2. Callaghan HMA, Grass Valley Allotment. November 6, 2008. . Lower elevation winter range nearly devoid of perennial grasses (intermixed shadscale/budsage and Wyoming big sagebrush).

Photo 3. Callaghan HMA, Grass Valley Allotment. November 6, 2008. Key Area GV-11. Lower elevation winter range devoid of perennial grasses, dominated by halogeton (shadscale/budsage range site). This area outside HMA boundaries but being utilized heavily by wild horses in winter.

Photo 4. Callaghan HMA, November 4, 2008. Austin Allotment. Near China Springs. Outside HMA. Pedestalled Sandberg bluegrass, bottlebrush squirreltail caged in shrubs. Low production of grasses and key perennial species missing in the understory (Wyoming big sagebrush range site).

Photo 5. Callaghan HMA, Austin Allotment. November 4, 2008. Outside HMA. A lot of horse sign and trails in the area. Many areas in poor condition, supporting halogeton. Very little grass present and large areas of bare ground. Key perennial grass species absent.

Photo 6. Callaghan HMA helicopter census March 9, 2008.

Photo 7. Callaghan HMA helicopter census March 9, 2008.

Photo 8. Callaghan HMA helicopter census March 9, 2008.

Photo 9. Callaghan HMA helicopter census March 9, 2008.

Bald Mountain HMA

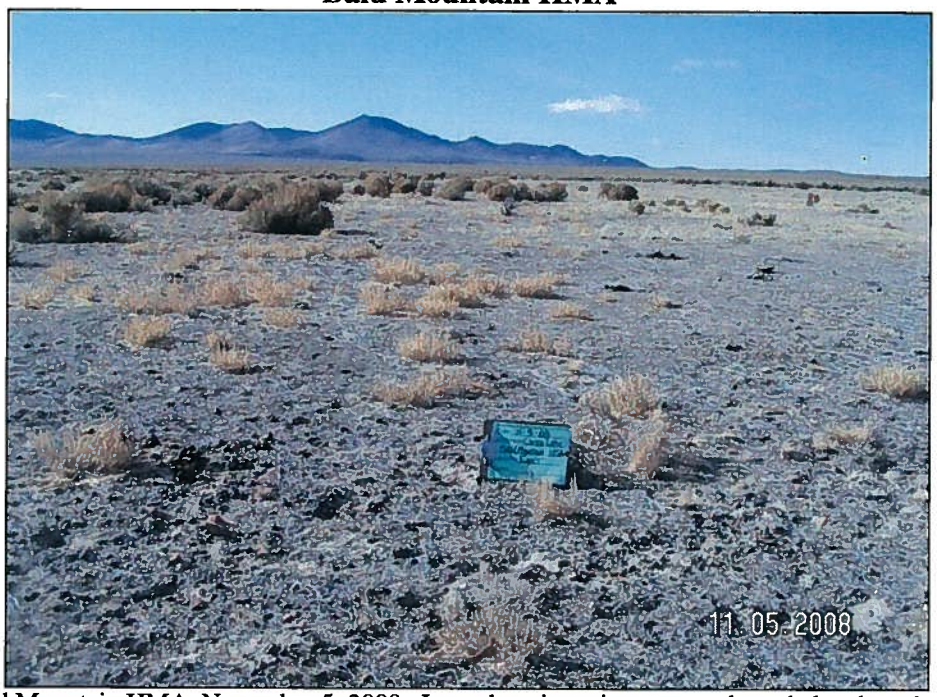


Photo 10. Bald Mountain HMA, November 5, 2008. Low elevation winter range degraded and producing limited or no forage for wild horses (shadscale/budsage and intermixed Wyoming big sagebrush).

Photo 11. Bald Mountain HMA, October 21, 2008. Dry spring. Heavy wild horse use in the area, heavy trailing through mid and upper elevations.

Photo 12. Bald Mountain HMA, October 21, 2008. Heavy wild horse use in the area, heavy trailing through mid and upper elevations. Springs in this area are dry.

Photo 13. Bald Mountain HMA, October 21, 2008. Range condition south of Hot Springs Point. Completely denuded of usable forage in the understory (mixed Wyoming big sagebrush and shadscale/budsage range sites).

Photo 14. Bald Mountain HMA, October 21, 2008. Dry Canyon Springs-2. This area heavily used by wild horses as one of the more reliable springs in the area.

Photo 15 and 16. Bald Mountain HMA, October 21, 2008. Wild horses in this area beginning to show signs of decline through accentuated shoulders, hips, necks etc.

Rocky Hills HMA

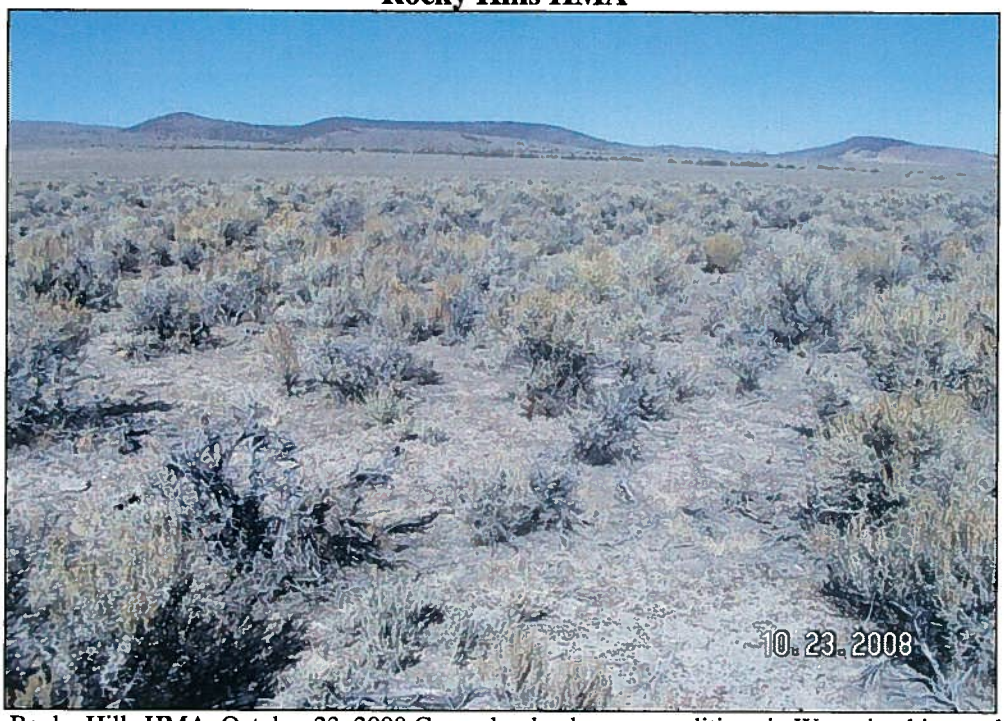


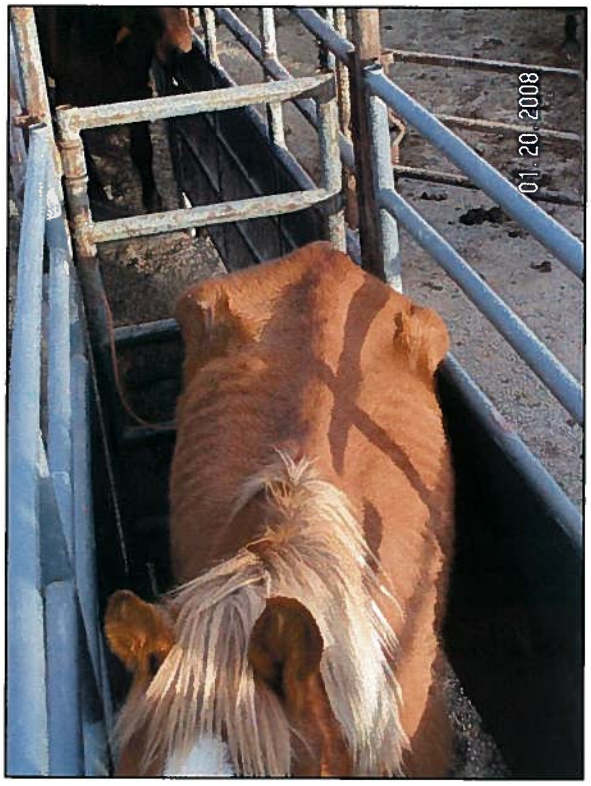
Photo 17. Rocky Hills HMA, October 23, 2008 General upland range conditions in Wyoming big sagebrush site. Low production of vegetation and lack of perennial key grass species.

Photo 18. Rocky Hills HMA, October 23, 2008. Geyser Creek supports very little water – mostly puddles.

Photo 19. Rocky Hills HMA, October 23, 2008. Denay Creek Pond area. Note trailing along the hillside to the left.

Photo 20. Rocky Hills HMA, October 23, 2008. Spring near the Tonkin Fire Rehab that is completely dry.

Roberts Mountain HMA Gather January 2008



Photos 21-23. Deep snow in the winter range areas buried the remaining (limited) forage. Wild horses were consuming shrubs and pawing for forage. 90% of horses gathered were thin, very thin or emaciated.