United States Department of the Interior

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In Reply Refer To:
4700 (NVB0200)

Decision

Wild Horse and Burro Program

Little Fish Lake HMA
Wild Horse Drought Gather

INTRODUCTION

The Bureau of Land Management (BLM) Battle Mountain District (BMD), Tonopah Field Office (TFO), is proposing to conduct a helicopter gather of approximately 150 wild horses, and permanently remove 100 horses from public lands within the Little Fish Lake Herd Management Area (HMA) in accordance with the Little Fish Lake HMA Wild Horse Drought Gather Plan. As proposed, fertility control, Porcine Zona Pellucidae (PZP-22), would be applied to mares selected for release back into the HMA. This gather is a Drought Response Action (DRA) that is needed because the evaluation of monitoring data has indicated that the lack of forage availability has exceeded predetermined Drought Response Triggers (DRTs) as described and analyzed in the Battle Mountain District Drought Management Environmental Assessment DOI-BLM-NV-B000-2012-0005-EA (Drought EA), dated June 22, 2012. A Determination of NEPA Adequacy (DNA) worksheet (DOI-BLM-B020-2015-0015-DNA) was completed for this action and the results indicate that the environmental impacts associated with the proposed gather have been adequately analyzed in the Drought EA. The Drought EA and associated documents can be viewed at https://www.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=42837.

BACKGROUND

The Little Fish Lake HMA is located on the BLM TFO administered lands 65 miles northeast of Tonopah, within Nye County, Nevada. The HMA encompasses an area 7 miles wide and 8 miles long. Elevations within the HMA range from a high of 7,500 feet on the mountain slopes to a low of 6,500 feet in the bottom of Little Fish Lake Valley. The area generally receives about 8 inches of precipitation in the valley bottoms and up to 12 inches on the mountain slopes. The vegetative communities are dominated by the sage brush steppe vegetation type, followed by the alkaline meadows and bottoms vegetation type (which tend to occur in the broad valleys), and in the higher precipitation zone are the pinyon-juniper woodland vegetation types. Multiple perennial streams and water sources are known throughout the HMA, several of which are on private land. The Appropriate Management Level (AML) for the Little Fish Lake HMA is 39 wild horses and the current population estimate is 200 wild horses.

(Little Fish Lake HMA Map: Attachment 1, **Figure 1**).
In June of 2012, the BMD issued the Drought EA and associated Drought Detection and Monitoring Plan (DDMP), which addressed potential environmental impacts associated with livestock and wild horse and burro management actions carried out during drought within the BMD. The Drought EA established clearly defined drought indicators and Drought Response Triggers that when met or exceeded could prompt the implementation of one or a combination of management actions, or Drought Response Actions (DRAs). The Drought EA analyzed a range of management alternatives, or DRAs, that would be implemented to mitigate the effects of drought and to address emergency situations.

Drought conditions in 2013 have resulted in insufficient amounts of forage to support the existing population of wild horses within the Little Fish Lake HMA. Upon review of drought monitoring data, the TFO has decided that wild horse capture and removal is the appropriate DRA for immediate protection of wild horses, rangeland, and wildlife resources. Prior to the conclusion that wild horse removal from the HMA was necessary; other DRAs were examined and deemed infeasible for this particular situation.

The Little Fish Lake HMA borders the Little Fish Lake Wild Horse Territory (WHT) managed by the U.S. Forest Service. Future planning for the HMA and WHT would be comprised of a comprehensive, jointly developed Herd Management Area Plan (HMAP). The HMAP will consist of plans for habitat improvements, management for genetic health and stability, and a thriving natural ecological balance.

PUBLIC INVOLVEMENT

Public outreach on numerous levels has occurred. Nye County Commissioner (Lorinda Wichman), Duckwater Shoshone Tribe (Chairwoman Virginia Sanchez), affected livestock grazing permitees, and several members of the interested public have been notified of the drought gather. Multiple wild horse advocacy groups were contacted. Additionally, public comment was received during review of the BMD Drought EA. The EA was made available to the public for a 30-day comment period which began on April 13, 2012. The EA was also made available to the Nevada State Clearinghouse which made the notification letter and EA available for review by over 50 different local, county, state, and federal agencies from around the state. The EA was posted on the BMD website and NEPA Register. All comments were reviewed and considered in the preparation of the EA.

The TFO would make reasonable attempts to accommodate the public wishing to view the trapping of wild horses, viewing of the captured wild horses at the holding corrals, and observation of loading for transport throughout the gather period.

LITTLE FISH LAKE HMA CAPTURE AND REMOVAL

In accordance with the attached Little Fish Lake Valley HMA Wild Horse Drought Gather Plan (Attachment 1), approximately 150 wild horses would be gathered with approximately 100 removed. Gather operations would begin on or around February 18, and may continue for approximately 3-5 days. Captured wild horses would be transported to the BLM's wild horse and burro facility in Ridgecrest, California. Gather operations would be conducted in accordance with the Wild Horse and Burro Programs Comprehensive Animal Welfare Policy Instruction Memorandum (IM) as well as the July 2014 memorandum from the Nevada State Director concerning public and media access.

DECISION

It is my decision to implement the Little Fish Lake HMA Wild Horse Drought Gather under Bureau of Land Management; Wild Free-Roaming Horse and Burro Management regulations 43 CFR § 4720.1, as described in the attached Little Fish Lake HMA Wild Horse Drought Gather Plan (Attachment 1), and consistent with the BMD Drought EA.

RATIONALE

Renewable resource staff for the TFO has been performing drought monitoring throughout the Little Fish Lake HMA, and the associated Wagon Johnnie grazing allotment. Monitoring has been conducted to verify and document drought-related resource effects beginning in 2012. Monitoring has continued to the present time. Monitoring methodologies and focus is consistent with those described in the BMD DDMP and analyzed in the Drought EA.

Vegetation within the HMA is displaying various signs of drought stress. There is a significant lack of forage, available for wildlife and wild horses. Prompt action is needed to ensure that rangeland resources, including those providing critical habitat for Greater Sage-grouse (Attachment 2, **Figure 6**), are not further impacted and degraded during the drought. Previous drought conditions are resulting in measurable resource damage within the Little Fish Lake HMA. Continued drought and use by wild horses will hamper or prevent the recovery of these areas.

Vegetative growth during the 2014 growing season was considerably reduced within some areas of the HMA. Little to no forage remains within large portions of the HMA. Areas of utilization surpassing drought triggers are identified, and can be found in the Little Fish Lake HMA Drought Monitoring Report (Attachment 2). No domestic livestock grazing has occurred within the allotment associated with the Little Fish Lake HMA for over a year. The previous three years consisted of trailing for up to two weeks per year. Drought Indicators as identified in the Battle Mountain District Drought EA have been verified (Attachment 2, **Figures 2, 3**).

In accordance with 43 CFR § 4720.1 and upon examination of current information, it has been determined that drought conditions exist within the Little Fish Lake HMA. Wild horse body condition within the Little Fish Lake HMA has not declined as of yet, however, the extreme lack of forage availability observed just before the late winter months is likely to result in emergency conditions, thus animals should be removed as soon as practical. Immediate action is necessary to protect wild horse health and reduce further rangeland degradation.

Current range conditions, measured from monitoring data collected from April 2013 through December 2014, show that the triggers for implementing a DRA, in the form of gather and removal of wild horses, have been exceeded. The TFO is issuing this Decision effective upon issuance in accordance with 43 CFR § 4770.3.

AUTHORITY

The authority for this decision is contained in Section 1333(a) of the Wild and Free Roaming Horses and

Burros Act (WFRHBA), Section 302 (a) and (b) of the Federal Land Policy and Management Act (FLPMA) of 1976, the Public Rangelands Improvement Act (PRIA) of 1978 (Pub. L. 95-514, Sec. 4) and at 43 CFR § 4700.

43 CFR § 4700.0-6 Policy.
(a) Wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat;
(b) Wild horses and burros shall be considered comparably with other resource values in the formulation of land use plans;
(c) Management activities affecting wild horses and burros shall be undertaken with the goal of maintaining free-roaming behavior;
(d) In administering these regulations, the authorized officer shall consult with Federal and State wildlife agencies and all other affected interests, to involve them in planning for and management of wild horses and burros on the public lands.

43 CFR § 4710.4 Constraints on Management
Management of wild horses and burros shall be undertaken with the objective of limiting the animals' distribution to herd areas. Management shall be at the minimum level necessary to attain the objectives identified in approved land use plans and herd management area plans.

43 CFR § 4720.1 Removal of excess animals from public lands
Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately in the following order.
(a) Old, sick, or lame animals shall be destroyed in accordance with subpart 4730 of this title;
(b) Additional excess animals for which an adoption demand by qualified individuals exists shall be humanely captured and made available for private maintenance in accordance with 4750 of this title; and
(c)Remaining excess animals for which no adoption demand by qualified individuals exists shall be destroyed in accordance with subpart 4730 of this title.

43 CFR § 4740.1 Use of motor vehicles or aircraft
(a) Motor vehicles and aircraft may be used by the authorized officer in all phases of the administration of the Act, except that no motor vehicle or aircraft, other than helicopters, shall be used for the purpose of herding or chasing wild horses and burros for capture or destruction. All such use shall be conducted in a humane manner.
(b) Before using helicopters or motor vehicles in the management of wild horses and burros, the authorized officer shall conduct a public hearing in the area where such use is to be made.

43 CFR § 4770.3 Administrative Remedies
(a) Any person who is adversely affected by a decision of the authorized officer in the administration of these regulations may file an appeal. Appeals and petitions for stay of a decision of the authorized officer must be filed within 30 days of receipt of the decision in accordance with 43 CFR, part 4.
(c) Notwithstanding the provisions of paragraph (a) of §4.21 of this title, the authorized officer may provide that decisions to remove wild horses or burros from public or private lands in situations where removal is required by applicable law or is necessary to preserve or maintain a thriving natural ecological balance and multiple use relationship shall be effective upon issuance or on a date established

in the decision.

43 USC Sec. 1901(4): Continue the policy of protecting wild free-roaming horses and burros from capture, branding, harassment, or death, while at the same time facilitating the removal and disposal of excess wild free-roaming horses and burros which pose a threat to themselves and their habitat and to other rangeland values.

42 USC Sec. 1732(b): In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.

APPEAL PROVISIONS

Within 30 days of receipt of this wild horse decision, you have the right to appeal to the Interior Board of Land Appeals, Office of the Secretary, in accordance with regulations at 43 CFR Part 4. If an appeal is taken, you must follow the procedures outlined in the enclosed form 1842-1, "Information on Taking Appeals to the Interior Board of Land Appeals." Please also provide this office with a copy of your Statement of Reasons. An appeal should be in writing and specify the reasons, clearly and concisely, as to why you think the decision is in error.

In addition, within 30 days of receipt of this decision you have a right to file a petition for a stay (suspension) of the decision together with your appeal in accordance with the regulations at 43 CFR § 4.21. The petition must be served upon the same parties identified in items 2, 3, and 4 of the enclosed form 1842-1 titled "Information on Taking Appeals to the Interior Board of Land Appeals." The appellant has the burden of proof to demonstrate that a stay should be granted.

A petition for a stay of the decision pending appeal shall show sufficient justification based on the following standards:

1) The relative harm to the parties if the stay is granted or denied;
2) The likelihood of the appellant's success on the merits;
3) The likelihood of immediate and irreparable harm if the stay is not granted; and
4) Whether the public interest favors granting the stay.

At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service (43 CFR § 4.401 (c) (2)).

APPROVAL

The Little Fish Lake HMA Drought Gather is approved for implementation immediately, and is approved to begin on or around February 18, 2015, This decision is effective upon issuance in accordance with 43 CFR § 4720.3 to preserve or maintain a thriving ecological balance and multiple use relationship.

\s\ Timothy J. Coward

Timothy J. Coward
Field Manager

Attachments

Attachment 1: Little Fish Lake HMA Wild Horse Drought Gather Plan
Attachment 2: Little Fish Lake HMA Monitoring Report
Attachment 3: Information on Taking Appeals to the Interior Board of Land Appeals

ATTACHMENT 1

LITTLE FISH LAKE HERD MANAGEMENT AREA
WILD HORSE DROUGHT GATHER PLAN

Battle Mountain District
Tonopah Field Office
1553 South Main St.
PO Box 911
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December 2014

Little Fish Lake
Herd Management Area

Wild Horse Drought Gather Plan

Nye County Nevada

NATIONAL SYSTEM OF PUBLIC LANDS

LITTLE FISH LAKE HMA WILD HORSE DROUGHT GATHER PLAN

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LITTLE FISH LAKE VALLEY HMA WILD HORSE DROUGHT GATHER PLAN

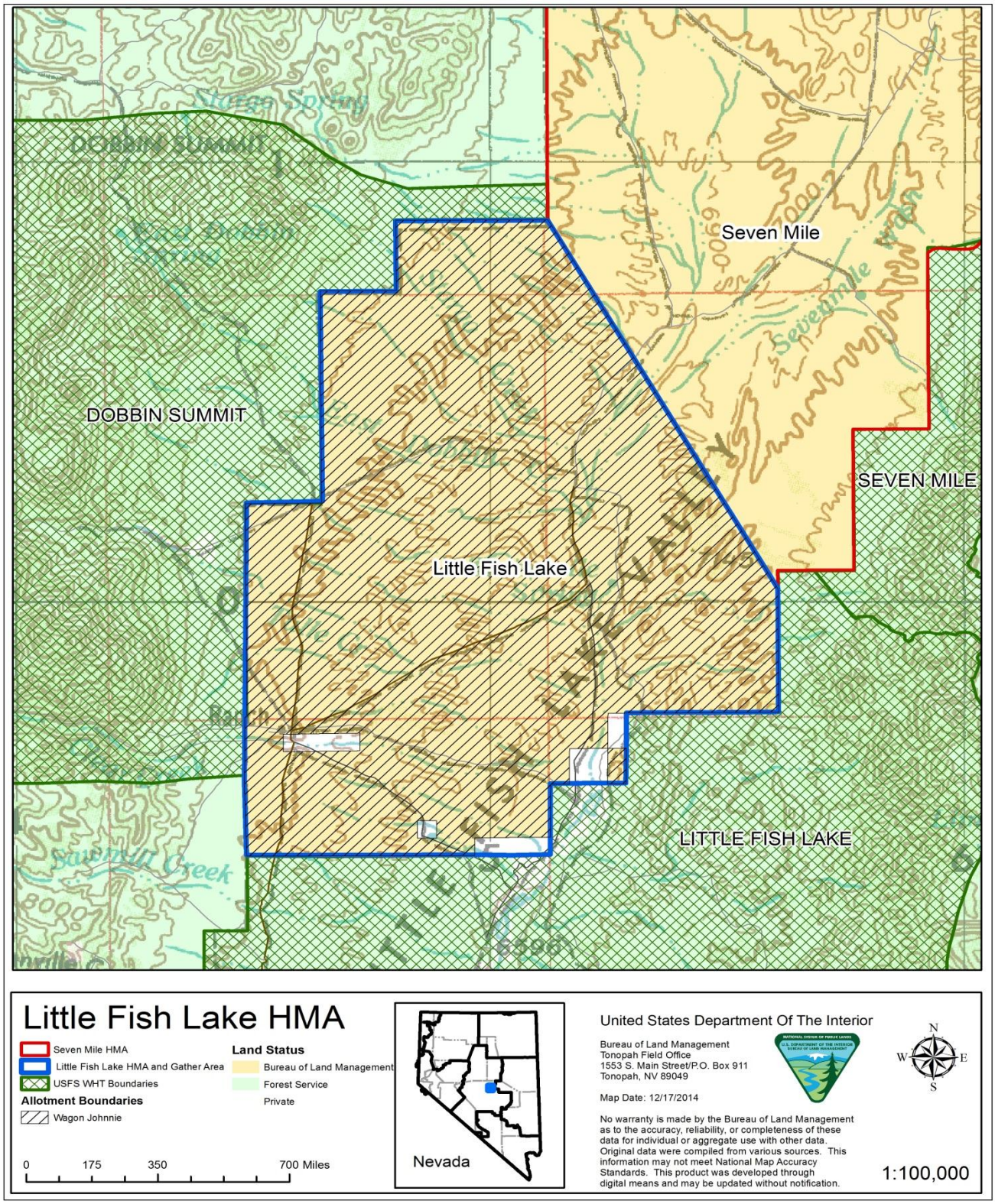
1.0 Introduction

The Bureau of Land Management (BLM) Tonopah Field Office (TFO) is proposing to conduct a drought related wild horse gather to remove wild horses from the Little Fish Lake Herd Management Area (HMA). The proposal includes the capture of approximately 150 wild horses from within the Little Fish Lake HMA. 100 horses will be removed and the additional 50 horses will be treated with fertility control and released back into the HMA. The gather area is exclusively within the Little Fish Lake HMA. The proposed drought gather would occur on or around February 18, 2014. The drought gathers would be conducted in accordance with this Gather Plan and Standard Operating Procedures (SOPs) located in Appendix A. Refer to **Figure 1** which displays the proposed gather area and HMA.

2.0 Background

The Little Fish Lake HMA is located on the BLM TFO administered lands northeast of Tonopah, and 45 miles north of Warm Springs, within Nye County, Nevada. The HMA encompasses an area 7 miles wide and 8 miles long. Elevations within the HMA range from a high of 7,200 feet on the mountain slopes to a low of 6,500 feet in Fish Lake Valley. The area generally receives 8 inches of precipitation in the valley bottoms and up to 12 inches on the mountain slopes. The vegetative communities are dominated by the sagebrush steppe vegetation type, followed by the alkaline meadows and bottoms vegetation type (which tend to occur in the broad valleys), and in the higher precipitation zone are the sagebrush and dispersed pinyon-juniper woodland vegetation types. Important species include Indian ricegrass, bottlebrush squirreltail, winterfat/white sage, and black sage brush. Multiple perennial streams and spring sources are known throughout the HMA, albeit several are on private land. The AML for the Little Fish Lake HMA is 39 wild horses and the current population estimate is 200 wild horses.

Figure 1. The Drought Gather Area - Little Fish Lake HMA.



3.0 Drought Wild Horse Gather Rationale

In June of 2012, the Battle Mountain District issued the Battle Mountain District (BMD) Drought Management Environmental Assessment (EA; DOI-BLM-NV-B000-2012-0005-EA), further referred to as the Drought EA, and the BMD Drought Detection and Monitoring Plan (DDMP). The Drought EA addressed potential environmental consequences associated with livestock and wild horse and burro management actions carried out during drought.

The Drought EA and associated DDMP established clearly defined drought indicators and Drought Response Triggers (Triggers) that when met or exceeded could prompt the implementation of one or a combination of management actions, or Drought Response Actions (DRA). The Drought EA analyzed a range of management alternatives, or DRAs, that would be implemented to mitigate the effects of drought and to address emergency situations.

Triggers were placed into two categories: water and forage. Water would be classified as "available" or "unavailable" with clear definitions of each. The forage category was further broken down into triggers associated with utilization and stubble height, livestock/wild horse and burro distribution, and plant production and/or drought stress.

The Drought EA analyzed wild horse removal as a DRA. Based on a review of drought monitoring data and all other available information, the BMD has decided that removal is necessary for immediate protection of wild horses, rangeland, and wildlife resources. Drought conditions have resulted in insufficient amounts of forage to support the existing population of wild horses within the HMA. Prior to the conclusion that wild horse removal from the Little Fish Lake HMA was necessary; other DRAs were examined and deemed not feasible for these particular situations.

This assessment is based on factors including, but not limited to, the following rationale:

3.1 Climate

As described in the Drought EA, the U.S. Drought Monitor (http://droughtmonitor.unl.edu/) was consulted to determine if weather conditions indicate drought and to identify affected areas. The Vegetation Drought Response Index (VegDRI) (http://vegdri.unl.edu/) was utilized to determine areas where vegetation conditions indicated drought afflicted areas and drought stress.

As of the most recent update (December 23, 2014) the U.S. Drought monitor indicates that the proposed drought gather areas are in a "severe" drought (Figure 3). According to the VegDRI, last updated on December 15, 2014, the Gather Area is identified as ranging from "Very moist" to Pre-drought" (Figure 4), in addition to "out of season". Multiple field visits have confirmed past drought conditions in the gather areas (Appendix C). Water sources in the HMA have been continuously monitored for availability, quality and quantity, and use. Site visits were conducted to validate areas of severe and extreme drought based on the VegDRI.

3.2 Drought Response Triggers and Monitoring Results

A summary of monitoring results can be found in Attachment 2.

3.2.1 Water

Water availability is not considered a major limiting factor in the Little Fish Lake HMA. A number of

perennial streams and creeks flow through the HMA coming out of the Monitor Mountain range to the west. Additionally, there are also water sources located in the valley bottom, known as the Seven Mile Spring complex which also provides a reliable, year-round water source.

3.2.2 Utilization

Numerous site visits indicated a significant lack of key forage species in Little Fish Lake HMA, due to years of severe overutilization. Furthermore, the documented overutilization has occurred during the year of drought, compromising the long-term existence of said key forage species and those wildlife species and wild horses that depend upon them for survival.

The Little Fish Lake HMA is comprised of sagebrush grassland, dispersed pinyon-juniper woodland, and riparian vegetation communities. In the Drought EA, utilization trigger levels for sagebrush grasslands and pinyon-juniper woodland were established at 30% use of key species. Utilization trigger levels for riparian habitats were established at 4 inch stubble height for key riparian species. Utilization of key upland species throughout the Little Fish Lake HMA are upwards of 40% utilization, even where key grass species are sheltered by shrubs, some areas have reached nearly 100% utilization. Utilization levels in riparian habitats average less than 4 inches of stubble height.

3.2.3 Plant Production and/or Drought Stress

Drought triggers set forth in the Drought EA and that apply to the Little Fish Lake HMA are: 1) drought induced senescence or reduced production of key upland species which results in an insufficient quantity and of forage for wildlife, wild horses, and livestock, and 2) noticeable signs of drought stress which impede the ability of key species to complete their life cycle (e.g. drought induced senescence, reduced seed head development, etc.)

Figure 2. U.S. Drought Monitor for Nevada on December 23, 2014.

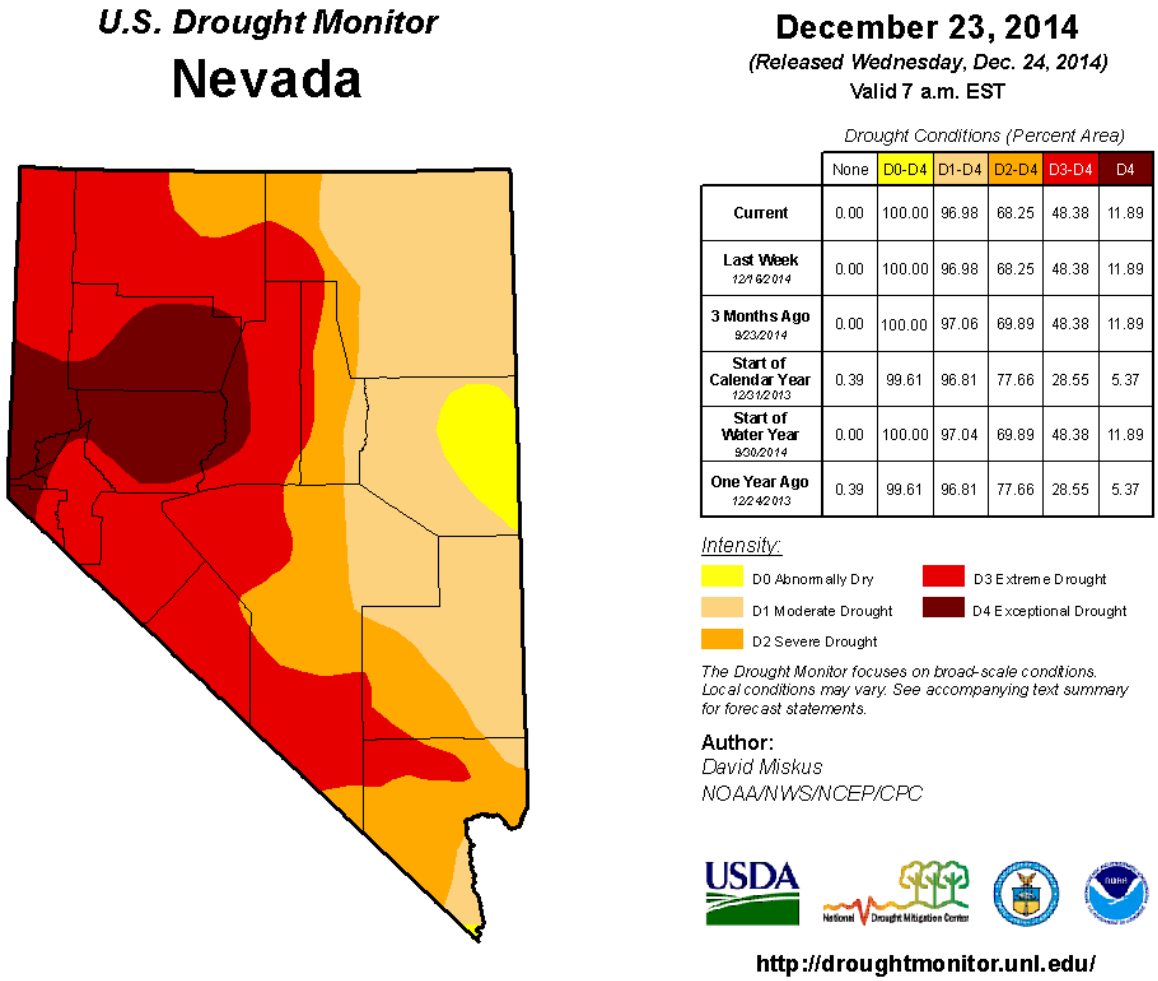
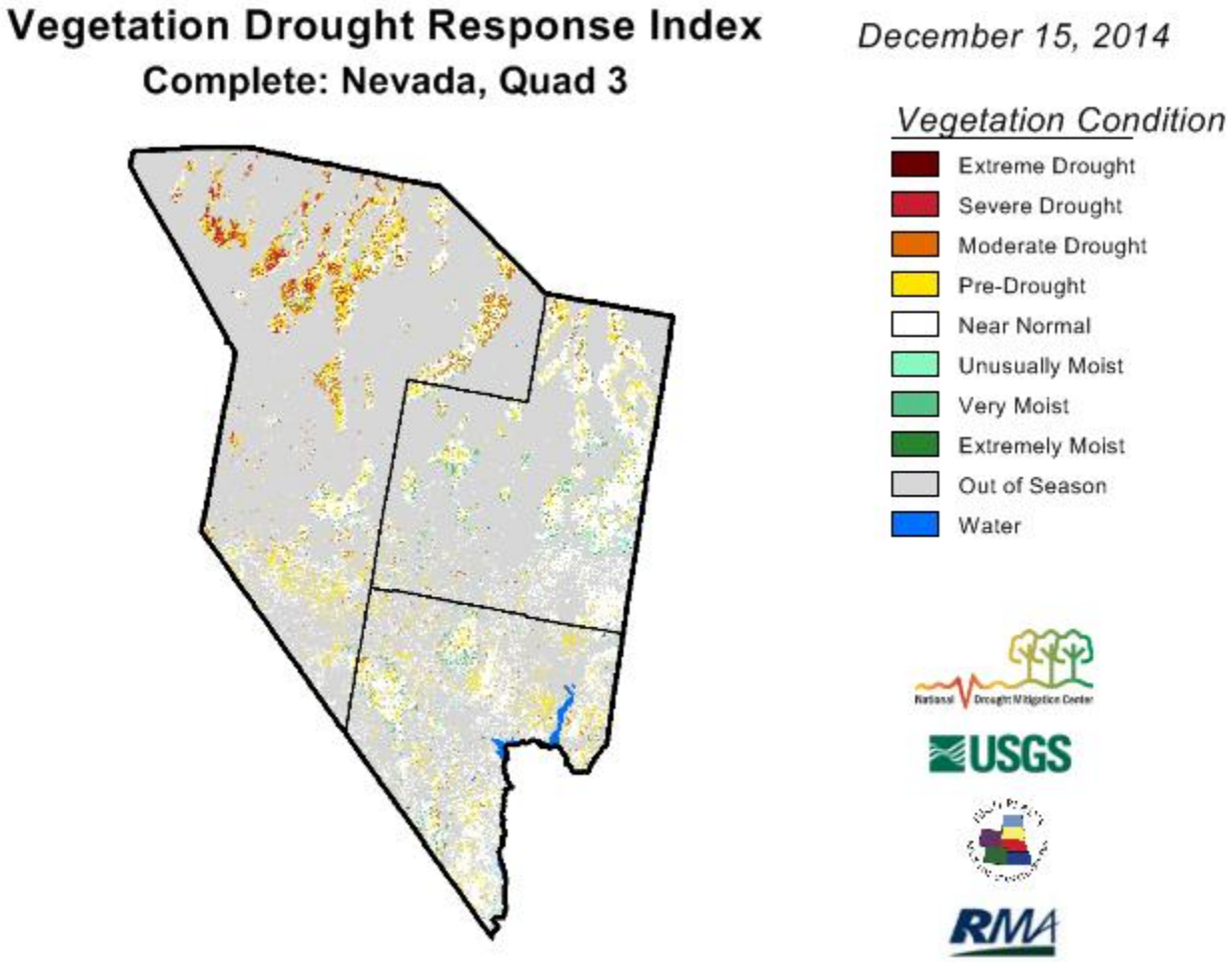


Figure 3. VegDRI map for western Nevada counties, including Nye County.



3.3 Animal Health

Wild horses are a long-lived species with documented survival rates exceeding 92% for all age classes and do not have the ability to self-regulate their population size. Wild horses in general are very resilient and adaptable animals with a metabolism that has evolved to allow them to survive and thrive in poor quality habitat (compared to their domestic counterparts). Wild horses typically do not begin to show signs of body condition decline until the habitat components are severely deficient. Once the decline begins, their health deteriorates rapidly.

Repeated site visits to the Little Fish Lake HMA have enabled TFO staff to document a range and trend of BCS of the wild horses in the area. Some bands of wild horses exhibit Henneke BCS scores of 3.5 – 4.0. However, the majority of the wild horses are in a BCS category of 5. With conditions in the HMA, body conditions may rapidly decrease.

If drought conditions persist or worsen and no action is taken to remove wild horses from the Little Fish Lake HMA, high rates of mortality in all age classes can be expected. The lack, or even delay of a gather would result in further degradation of rangeland resources.

3.4 Status of Livestock

Currently, no livestock graze in the Little Fish Lake HMA. Permittees in the area have voluntarily not grazed Little Fish Lake Valley for several years (since fall 2013) due to the lack of forage. Previous use has been drastically reduced due to lack of forage. Pursuant to 43 CFR §4710.5, the allotment would be temporarily closed to livestock grazing if necessary to protect the health of wild horses or their habitat. The livestock grazing closure would be in effect for the duration of the drought plus one growing season following the cessation of the drought.

3.5 Greater Sage Grouse

The Little Fish Lake HMA is almost entirely composed of Greater Sage-grouse habitat (over 99% Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH), cumulatively), with two active leks occurring within its boundary. Two extensive riparian habitats occur within the HMA, the Seven Mile spring complex and Clear Creek. These riparian areas are especially important habitats for sage-grouse that utilize the Little Fish Lake Valley. The Sage-grouse is currently a candidate species for listing under the Threatened and Endangered Species Act. Continued use of the area during drought conditions could lead to further degradation of Sage-grouse habitat. Deterioration of this species' habitat would further warrant its listing.

4.0 Drought Gather Plan

The proposed gather would take place on or about February 18, 2015. The gather would be completed in accordance with this Drought Gather Plan and Standard Operating Procedures (SOPs; Appendix A). The BLM would be responsible for contractor compliance to national contract specifications including SOPs.

The primary gather technique would be the helicopter-drive trapping method. The use of roping from horseback could also be used when necessary. Multiple gather sites (traps) would be used to gather wild horses both from within and outside the HMAs. The BLM would make every effort to place gather sites in previously disturbed areas, but if a new site needs to be used, a cultural resource inventory would be completed prior to using the new gather site. No gather sites would be set up near greater sage-grouse leks, known populations of Sensitive Species; or in riparian areas, cultural resource sites, Wilderness Study Areas (WSAs) or congressionally designated Wilderness Areas. All gather sites, holding facilities, and camping areas on public lands would be recorded with Global Positioning System equipment, given to the Battle Mountain District Invasive, Non-native Weed Coordinators, and then assigned for monitoring during the next several years following gather for invasive, non-native weeds. All gather and handling activities (including gather site selections) would be conducted in accordance with SOPs in Appendix A.

Some animals gathered from inside the Little Fish Lake HMA boundary could be subject to selective removal to the extent possible, while ensuring that the post-gather populations or individuals are not threatened by continued drought conditions. The primary goal for the gathers is to remove wild horses in poor body condition and to protect rangeland and wildlife resources. It is anticipated that any animals selected for release back to the Little Fish Lake HMA would be the individuals in the best body condition. Additionally, horses returned to the HMA would be treated with an Immunocontraception vaccine (PZP-22). Weak, unhealthy, and unthrifty animals would not be released. A helicopter inventory flight may be conducted following the gather to collect information about numbers,

distribution and health of remaining wild horses within the HMA.

An Animal and Plant Inspection Service (APHIS) or other veterinarian may be on-site during the gather, as needed, to examine animals and make recommendations to the BLM for care and treatment of wild horses.

Any old, sick or lame horses unable to maintain an acceptable body condition (greater than or equal to a Henneke body condition score (BCS) of 3 or with serious physical defects such as club feet, severe limb deformities, or sway back would be humanely euthanized as an act of mercy. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy (Washington Office Instruction Memorandum 2009-041).Refer to: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2009/IM_2009-041.html

Temporary Holding Facilities During Gathers
Wild horses gathered would be transported from the gather corrals (trap sites) to a temporary holding corral within or nearby the HMA primarily in goose-neck trailers however straight deck semi-trailers may be used. At the temporary holding corrals wild horses would be aged and sorted into different pens based on age and sex. The horses would be fed quality hay and water while in the holding facility. Mares and their un-weaned foals (if encountered) would be kept in pens together.

At the temporary holding facility, recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses would be provided by a veterinarian. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Short Term Holding, and Adoption (or Sale) Preparation

Up to 100 total wild horses would be removed. Wild horses identified for removal would be transported from the capture/temporary holding corrals to the designated BLM short-term holding corral facility(s) in straight deck semi-trailers or goose-neck stock trailers.

Vehicles would be inspected by the BLM Contracting Officer's Representative (COR) or Project Inspector (PI) prior to use to ensure wild horse safety. Wild horses would be segregated by age and sex and loaded into separate compartments. A small number of mares may be shipped with foals. Transportation of recently captured wild horses is limited to a maximum of 8 hours.

Upon arrival at the short term holding facility, recently captured wild horses would be off-loaded by compartment and placed in holding pens where they are fed quality hay and given water. Most wild horses begin to eat and drink immediately and adjust rapidly to their new situation. At the short-term holding facility, a veterinarian examines each load of horses and provides recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Wild horses in very thin condition or animals with injuries would be sorted and placed in hospital pens, fed separately and/or treated for their injuries as indicated. Recently captured wild horses, generally mares, in very thin condition may have difficulty transitioning to feed. Some of these animals may be in such

poor condition that it is unlikely they would have survived if left on the range. Every effort would be taken to help the mare make a quiet, low stress transition to captivity and domestic feed to minimize the risk of death.

At short-term corral facilities, once the horses have adjusted to their new environment, they are prepared for adoption or sale. Preparation involves freeze-marking the animals with a unique identification number, drawing a blood sample to test for equine infectious anemia (Coggins test), vaccination against common equine diseases, castration, and de-worming.

At short-term corral facilities, a minimum of 700 square feet is provided per animal. Mortality at short-term holding facilities averages approximately 5% per year (GAO-09-77, Page 51), and includes animals euthanized due to a pre-existing condition; animals in extremely poor condition; animals that are injured and would not recover; animals which are unable to transition to feed; and animals which are seriously injured or accidentally die during sorting, handling, or preparation.

The long-term grassland pastures are designed to provide excess wild horses with humane, and in some cases life-long care in a natural setting off the public rangelands. There, wild horses are maintained in grassland pastures large enough to allow free-roaming behavior and with the forage, water, and shelter necessary to sustain them in good condition. Establishment of LTPs was subject to a separate NEPA and decision-making process. Located in mid or tall grass prairie regions of the United States, these LTP are highly productive grasslands compared to more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 10-11 acres per animal). Of the animals currently located in LTP, less than one percent is age 0-4 years, 49 percent are age 5-10 years, and about 51 percent are age 11+ years.

Mares and castrated stallions (geldings) are segregated into separate pastures except one facility where geldings and mares coexist. No reproduction occurs in the long-term grassland pastures, but some foals are born to mares that were pregnant when they were removed from the range and placed onto the LTP. These foals are gathered and weaned when they reach about 8-10 months of age and are then shipped to short-term facilities where they are made available for adoption. Handling of wild horses at the LTPs is minimized to the extent possible although regular on-the-ground observation and weekly counts of the wild horses to ascertain their numbers, well-being, and safety are conducted. A very small percentage of the animals may be humanely euthanized if they are in very thin condition and are not expected to improve to a Henneke BCS of 3 or greater due to age or other factors. Natural mortality of wild horses in LTP averages approximately 8% per year, but can be higher or lower depending on the average age of the horses pastured there (GAO-09-77, Page 52). The savings to the American taxpayer which results from contracting for LTP averages about $4.45 per horse per day as compared with maintaining the animals in short-term holding facilities.

Euthanasia and Sale without Limitation

While humane euthanasia and sale without limitation of healthy horses for which there is no adoption demand is required under the Wild Free Roaming Horses and Burros Act (WFRHBA), Congress prohibited the use of appropriated funds for this purpose between 1987 and 2004 and again in 2011 and is presently in effect. It is unknown if a similar limitation will be placed on the use of Fiscal Year 2016 appropriated funds.

The Authorized Office (or designee) will make decisions regarding euthanasia, in accordance with BLM policy as expressed in Washington Office Instructional Memorandum No. 2009-041. A veterinarian may be called to make a diagnosis and final determination. Current BLM SOP is to have a Veterinarian from APHIS on site throughout the gather to observe animal health and condition and provide input to BLM staff regarding the potential need to euthanize wild horses on gathers. 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 Horses and Burros 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. The following are excerpted from IM 2009-41:

A Bureau of Land Management (BLM) authorized officer may authorize the euthanasia of a wild horse or Burro in field situations (includes free-roaming horses and burros encountered during gather operations) as well as short- and long-term wild horse and Burro holding facilities with any of the following conditions:

(1) Displays a hopeless prognosis for life;
(2) 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)
(3) would require continuous treatment for the relief of pain and suffering in a domestic setting;
(4) is incapable of maintaining a Henneke body condition score greater than two, in its present environment;
(5) has an acute or chronic injury, physical defect or lameness that would not allow the animal to live and interact with other horses or burros , 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;
(6) suffers 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.

There are three circumstances where the authority for euthanasia would be applied in a field situation:

(A) If an animal suffers from a condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal. If the animal is euthanized during a gather operation, the authorized officer will describe the animal's condition and report the action using the gather report in the comment section that summarizes gather operations (See attachment 1). If the euthanasia is performed during routine monitoring, the Field Manager will be notified of the incident as soon as

practical after returning from the field.

(B) Older wild horses and burros encountered during gather operations should be released if, in the opinion of the authorized officer, the criteria described in 1-6 above for euthanasia do not apply, but the animals would not tolerate the stress of transportation, adoption preparation, or holding and may survive if returned to the range. This may include older animals with significant tooth wear or tooth loss that have a Henneke body condition score greater than two. However, if the authorized officer has inspected the animal's teeth and feels the animal's quality of life will suffer and include health problems due to dental abnormalities, significant tooth wear or tooth loss; the animal should be euthanized as an act of mercy.

(C) If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority to euthanize the animal in a humane manner. The authorized officer will prepare a written statement documenting the action taken, and notify the Field Manager and State Office WH&B (WH&B) Program Lead. If available, consultation and advice from a veterinarian is recommended, especially where significant numbers of wild horses or burros are involved.

5.0 Special Stipulations

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

2) Gather corrals 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) 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.

4) Standard operating procedures in the site establishment and construction of gather corrals will avoid adverse impacts from gather corrals, construction, or operation to wildlife species, including threatened, endangered, or sensitive species.

5) Archeological clearance by a BLM archaeologist or District Archeology Technician of gather corrals, holding corrals, and areas of potential effects would occur prior to construction of gather corrals 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, gather corrals and holding corrals would be identified just prior to use in the field. As a result, Cultural Resource staff would coordinate with WH&B personnel to inventory proposed locations as they are identified, and complete required documentation.

6) Wilderness Study Areas: 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.

7) Wildlife stipulations

The following stipulations would be applied as appropriate.

a. Sage Grouse
   i. Avoid active leks (strutting grounds) by 2 miles. March 1- May 15
   ii. Avoid nesting and brood rearing areas (especially riparian areas where broods concentrate beginning usually in June) by 2 miles. April 1 – August 15
   iii. Avoid sage grouse wintering areas by 2 miles while occupied. Most known wintering grounds in the Tonopah Resource Area occur at high elevations and are not likely to be affected. Dates vary with severity of winter
   iv. Minimize and mitigate disturbance to the vegetation in all known sage grouse habitat.

b. Ferruginous Hawk: Avoid active nests by 2 miles. March 15- July 1.

6.0 Continued Monitoring

The BLM would continue to conduct the necessary monitoring to periodically evaluate the effects of drought in the Little Fish Lake HMA. While drought conditions persist, TFO staff will continue to collect climate, water, forage, animal distribution, plant production and drought stress and the body condition of wild horses and burros as defined by the Drought EA and Drought Detection and Monitoring Plan.

Appendix A: Standard Operating Procedures and Comprehensive Animal Welfare Program for Wild Horse and Horse Gathers

Gathers would be conducted by utilizing contractors from the Wild Horse Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses would apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations will be conducted in conformance with the *Wild Horse Aviation Management Handbook* (January 2009).

Prior to any gathering operation, the BLM will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness 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 operations. If it is determined that a large number of animals may need to be euthanized or capture operations could be facilitated by a veterinarian, these services would be arranged before the 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.

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

The primary capture methods used in the performance of gather operations include:

1. Helicopter Assisted Trapping. This capture method involves utilizing a helicopter to direct wild horses or burros into a temporary corral.
2. Helicopter Assisted Roping. This capture method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This capture method involves utilizing bait (e.g., water or feed) to lure wild horses or burros into a temporary corral.

The following procedures and stipulations will be followed to ensure the welfare, safety, and humane treatment of wild horses in accordance with the provisions of 43 CFR 4700.

A. Capture Methods used in the Performance of Gather Contract Operations

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

   All gather corral and holding facilities locations must be approved by the Contracting Officer's Representative (COR) and/or the Project Inspector (PI) prior to construction. The Contractor may also be required to change or move corral locations as determined by the COR/PI. All gather corrals and holding facilities not located on public land must have prior written approval of the landowner.

2. The rate of movement and distance the animals travel shall not exceed limitations set by the COR who will consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the contractor the distance the animals travel will account for the different factors listed above and concerns with each HMA.

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

    a. Gather corrals and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All gather corrals 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, plywood, metal without holes larger than 2"x 4".

    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 above ground level for horses and 1 foot to 6 feet for burros. The location of the government furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the COR/PI.

    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, plastic snow fence, etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for horses and 2 feet to 6 feet for burros.

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

4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor shall be responsible for restoration of any fence modification which he has made.

5. 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.

6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or mares with small foals, sick and injured animals, strays, or other animals the COR determines need to be housed in a separate pen 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 may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the capture area(s). In areas requiring one or more satellite gather corrals, and where 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 and later segregation will be at the discretion of the COR.

7. The Contractor shall provide animals held in the gather corrals and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Animals held for 10 hours or more in the gather corrals or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. An animal that is held at a temporary holding facility through the night is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.

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

9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if animals must be euthanized and provide for the destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.

10. Animals shall be transported to final their destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR/PI 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 COR/PI. Animals shall not be held in gather corrals and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR/PI. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours in any 24 hour period. Animals that are to be released back into the capture area may need to be transported back to the original gather site. This determination will be at the discretion of the COR.

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

1. Capture attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary gather corral. If the contractor selects this method the following applies:

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

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

c. Gather corrals shall be checked a minimum of once every 10 hours.

2. Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method the following applies:

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 COR/PI. Under no circumstances shall animals be tied down for more than one half hour.

b. The contractor shall assure that foals shall not be left behind, and orphaned.

3. Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor with the approval of the COR/PI selects this method the following applies:

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

b. The contractor shall assure that foals shall not be left behind, or orphaned.

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

C. Use of 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 the COR/PI 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 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 the 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 a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall 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 or 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 all trailers must be strong enough so 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 COR/PI.

5. Floors of tractor-trailers, stock trailers and loading chutes 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 COR/PI 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:

   12.6 square feet per adult horse (1.6 linear foot in an 8 foot wide trailer);
   8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
   6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
   4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).

7. The COR/PI 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 COR/PI shall provide for any brand and/or inspection services required for the captured animals.

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

D. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the capture of wild horses 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.

   a. 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 contracting officer or COR/PI 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 Contracting Officer or his/her representative.

   b. The Contractor shall obtain the necessary FCC licenses for the radio system

   c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.

2. Should the contractor choose to utilize a helicopter the following will apply:

    a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.

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

E. Site Clearances

Personnel working at gather sites will be advised of the illegality of collecting artifacts. Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc). All proposed site(s) must be inspected by a government archaeologist (or designee). Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.

Gather sites and temporary holding facilities would not be constructed on wetlands, riparian zones or weed infested areas.

F. Public Participation

BLM will maximize and seek to provide meaningful opportunities for public and media viewing of gather operations while taking into consideration BLM's primary mandate to conduct a successful and efficient gather that minimizes the risk of injury and stresses to gathered horses and takes into consideration human safety. The public must adhere to guidance from the on-site BLM representatives. It is BLM policy that the public will not be allowed to come into direct contact with wild horses being held in BLM facilities. Only authorized BLM personnel or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at anytime or for any reason during BLM operations.

G. Responsibility and Lines of Communication

The Contracting Officer's Representatives (CORs) and the project inspectors (PIs) have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. David Price, Wildlife Biologist would serve as the primary COR. Alternate COR and PI(s) would be selected prior to the start of the gather. Deborah Brown, Assistant Field Manager and Timothy Coward, Field Manager, TFO will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and BLM Holding Facility offices. All employees involved in the gather operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Nevada State Office and Battle Mountain District Office Public Affairs Officer. These individuals will be the primary contact and will coordinate with the COR on any inquiries.

The COR will coordinate with the contractor and the BLM Corrals to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

The contract specifications require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after capture of the animals. The specifications will be vigorously enforced.

Should the contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

Appendix B: Standard Operating Procedures for Population-level Fertility Control Treatments

<u>One Year liquid vaccine:</u>

The following implementation and monitoring requirements are Part of the Proposed Action:

1. PZP vaccine would be administered through darting by trained BLM personnel or collaborating research partners only. For any daring operation, the designated personnel must have successfully completed a Nationally recognized wildlife darting course and who have documented and successful experience darting wildlife under field conditions.
2. Mares that have never been treated would receive 0.5 cc of PZP vaccine emulsified with 0-.5 cc of Freund's Modified Adjuvant (FMA) and loaded into darts at the time a decision has been made to dart a specific mare. Mares identified for re-treatment receive 0.5 cc of the PZP vaccine emulsified with 0.5 cc of Freund's Incomplete Adjuvant (FIA).
3. The Liquid dose of PZP vaccine is administered using 1.0cc Pneu-Darts with 1.5" barbless needles fired from either Dan Inject ® or Pneu-Dart ® capture gun.
4. Only designated darters would mix the vaccine/adjuvant and prepare the emulsion. Vaccine- adjuvant emulsion would be loaded into darts at the darting sire and delivered by means of a capture gun.
5. Delivery of the vaccine would be by intramuscular injection into the left or right hip/gluteal muscles while the mare is standing still.
6. Safety for both humans and the horse is the foremost consideration in deciding to dart a mare. The Can Inject® gun would not be used at ranges in excess of 30 m while the Pneu-Dart® capture gun would not be used over 50 m, and no attempt would be taken when other persons are within a 30-m radius of the target animal.
7. No attempts would be taken in high wind or when the horse is standing at an angle where the dart could miss the hip/gluteal region and hit the rib cage. The ideal is when the dart would strike the skin of the horse at a perfect 90° angle.
8. If a loaded dart is not used within two hours of the time of loading, the contents would be transferred to a new dart before attempting another horse. If the dart is not used before the end of the day, it would be stored under refrigeration and the contents transferred to another dart the next day. Refrigerated darts would not be used in the field.
9. No more than two should be present at the time of a darting. The second person is responsible for locating fired darts. The second person should also be responsible for identifying the horse an keeping onlookers at a safe distance.
10. To the extent possible, all darting would be carried out in a discrete manner. However, if darting is to be done within view of non-participants or members of the public, an explanation of the nature of the project would be carried our either immediately before or after the darting.
11. Attempts will be made to recover all darts. To the extent possible, all darts which are discharged and drop from the horse at the darting site would be recovered

before another darting occurs. In exceptional situation, the sire of a lost dart may be noted and marked, and recovery efforts made at a later time. All discharged darts would be examined after recovery in order to determine if the charge fired and the plunger fully expelled the vaccine.

12. All mares targeted for treatment will be clearly identifiable through photographs to enable researchers and HMA managers to positively identify the animal during the research project and at the time of removal during subsequent gathers.
13. Personnel conducting darting operations should be equipped with a two-way radio or cell phone to provide a communications link with the Project Veterinarian for advice and/or assistance. In the event of a veterinary emergency, darting personnel would immediately contact the Project Veterinarian, providing all available information concerning the nature and location of the incident.
14. In the event that a dart strikes a bone or imbeds in soft tissue and does not dislodge, the darter would follow the affected horse until the dart falls out or the horse can no longer be found. The darter would be responsible for daily observation of the horse until the situation is resolved.

22-month time-release pelleted vaccine:

The following implementation and monitoring requirements are part of the Proposed Action:

1. PZP vaccine would be administered only by trained BLM personnel or collaborating research partners.
2. Mares that have never been treated would receive 0.5 cc of PZP vaccine emulsified with 0.5 cc of Freund's Modified Adjuvant (FMA). Mares identified for re-treatment receive 0.5 cc of the PZP vaccine emulsified with 0.5 cc of Freund's Incomplete Adjuvant (FIA).
3. The fertility control drug is administered with two separate injections: (1) a liquid dose of PZP is administered using an 18-gauge needle primarily by hand injection; (2) the pellets are preloaded into a 14-gauge needle. These are delivered using a modified syringe and jabstick to inject the pellets into the gluteal muscles of the mares being returned to the range. The pellets are designed to release PZP over time similar to a time-release cold capsule.
4. Delivery of the vaccine would be by intramuscular injection into the gluteal muscles while the mare is restrained in a working chute. The primer would consist of 0.5 cc of liquid PZP emulsified with 0.5 cc of Freunds Modified Adjuvant (FMA). The pellets would be loaded into the jabstick for the second injection. With each injection, the liquid or pellets would be injected into the left hind quarters of the mare, above the imaginary line that connects the point of the hip (hook bone) and the point of the buttocks (pin bone).
5. In the future, the vaccine may be administered remotely using an approved long range darting protocol and delivery system if or when that technology is developed.
6. All treated mares will be freeze-marked on the hip or neck HMA managers to positively identify the animals during the research project and at the time of removal during subsequent gathers.

Monitoring and Tracking of Treatments:

1. At a minimum, estimation of population growth rates using helicopter or fixed-wing surveys will be conducted before any subsequent gather. During these surveys it is not necessary to identify which foals were born to which mares; only an estimate of population growth is needed (i.e. # of foals to # of adults).
2. Population growth rates of herds selected for intensive monitoring will be estimated every year post-treatment using helicopter or fixed-wing surveys. During these surveys it is not necessary to identify which foals were born to which mares, only an estimate of population growth is needed (i.e. # of foals to # of adults). If, during routine HMA field monitoring (on-the-ground), data describing mare to foal ratios can be collected, these data should also be shared with the NPO for possible analysis by the USGS.
3. A PZP Application Data sheet will be used by field applicators to record all pertinent data relating to identification of the mare (including photographs if mares are not freeze-marked) and date of treatment. Each applicator will submit a PZP Application Report and accompanying narrative and data sheets will be forwarded to the NPO (Reno, Nevada). A copy of the form and data sheets and any photos taken will be maintained at the field office.
4. A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, disposition of any unused PZP, the number of treated mares by HMA, field office, and State along with the freeze-mark(s) applied by HMA and date.

Appendix C: Federal Aviation Administration General Operating and Flight Rules Sec. 91.119

Part 91 GENERAL OPERATING AND FLIGHT RULES
Subpart B--Flight Rules General

Sec. 91.119

Minimum safe altitudes: General.

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) Anywhere. An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

[(d) Helicopters, powered parachutes, and weight-shift-control aircraft. If the operation is conducted without hazard to persons or property on the surface—

(1) A helicopter may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section, provided each person operating the helicopter complies with any routes or altitudes specifically prescribed for helicopters by the FAA; and

(2) A powered parachute or weight-shift-control aircraft may be operated at less than the minimums prescribed in paragraph (c) of this section.]

Amdt. 91-311, Eff. 4/2/1

ATTACHMENT 2
LITTLE FISH LAKE HERD MANAGEMENT AREA
MONITORING REPORT

LITTLE FISH LAKE HERD MANAGEMENT AREA MONITORING REPORT

Renewable staff for the Tonopah Field Office (TFO) has been performing drought monitoring throughout the Little Fish Lake Herd Management Area (LFL HMA), and associated grazing allotment. Monitoring has been conducted to verify and document drought-related resources. Since 2012 Monitoring methodologies and focus is consistent with those described in the Battle Mountain District Drought Detection and Monitoring Plan and analyzed in the Battle Mountain District Drought Management EA (DOI-BLM-NV-B000-2012-0005-EA) dated June 14, 2012. This monitoring report shows the progression of drought in the Little Fish Lake HMA from 2011 to the present.

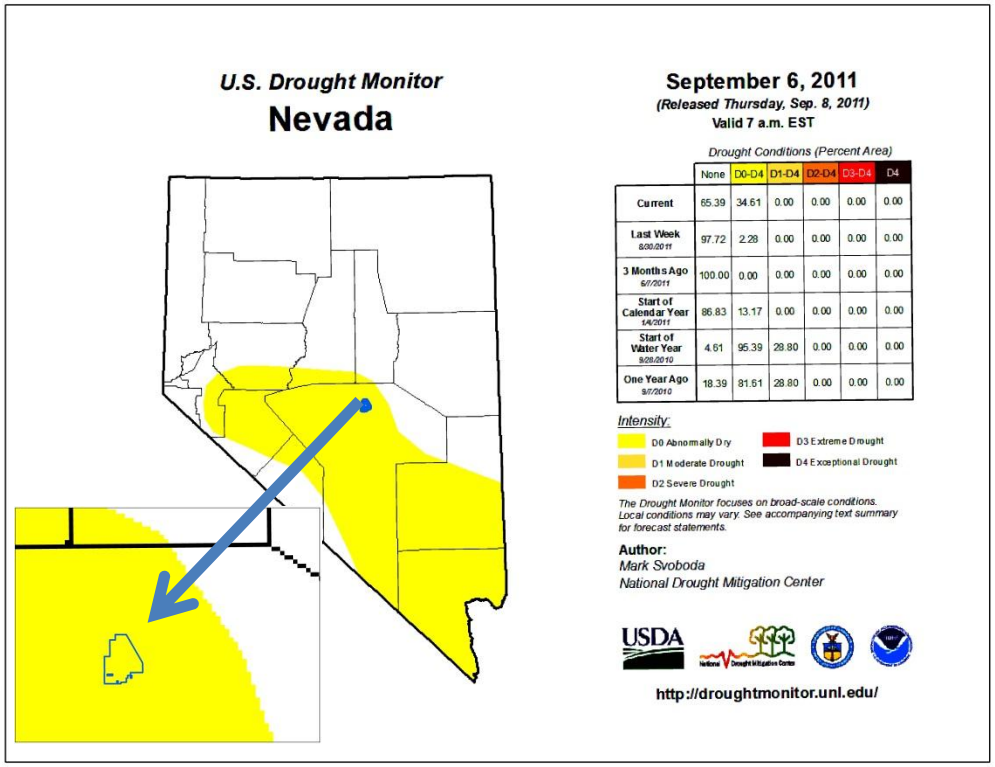
The U.S. Drought Monitor is a weekly map of drought conditions that is produced jointly by the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture, and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln. The map is based on measurements of climatic, hydrologic and soil conditions as well as reported impacts and observations from more than 350 contributors around the country. Eleven climatologists from the partner organizations take turns serving as the lead author each week. The authors examine all the data and use their best judgment to reconcile any differences in what different sources are saying.

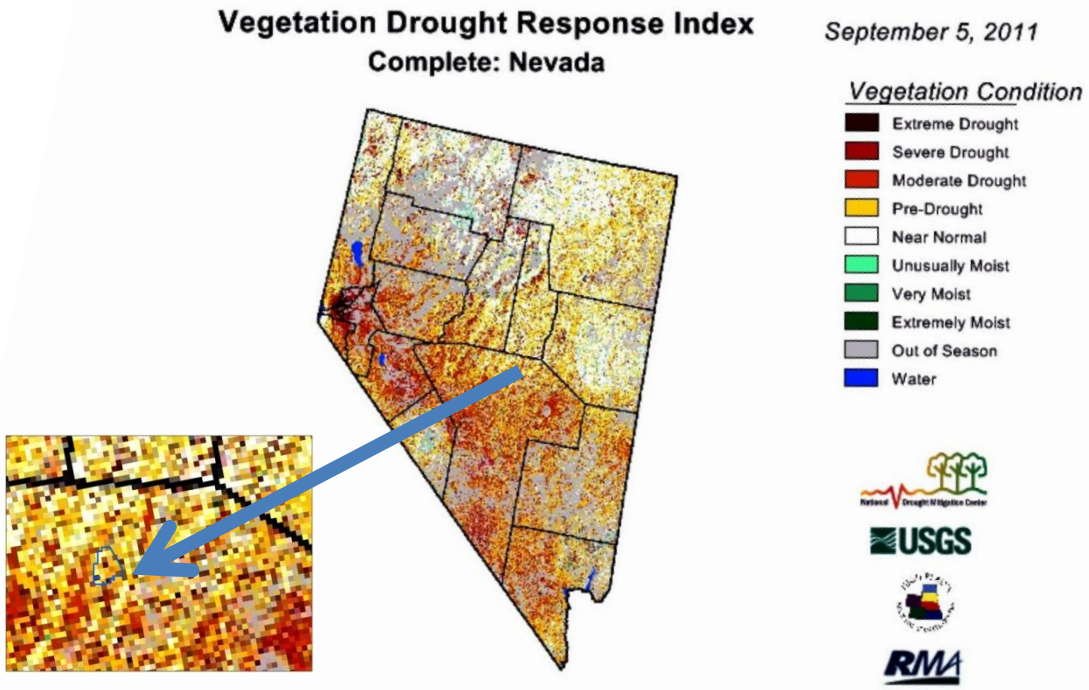
VegDRI is a bi-weekly depiction of vegetation stress across the contiguous United States. VegDRI is a fine resolution (1-km^2) index based on remote sensing data, but unlike other satellite-based measurements, VegDRI also incorporates climate and biophysical data to determine the cause of vegetation stress. This integrated approach provides benefits over satellite-derived data alone. Multiple factors such as climate, pests, land use change, fire, and extreme weather events can influence vegetation conditions, so including climate and biophysical data help distinguish stress due to drought.

2011

Monitoring in 2011primarily consisted of visits to critical water sources within the HMA. Monitoring reports from 2011 show that horse Henneke Body Condition Score (BCS) was at 6. Plant vigor was good due to the amount of precipitation that year. There was evidence of over use by horse on all grasses and winterfat.

Figure 1. The U.S. Drought Monitor Map and VegDRI- Little Fish Lake HMA is displayed as being as Abnormally Dry from September 6 through September 26. All other periods for the year, the LFL HMA was mapped as None, or no drought. VegDRI shows the area in pre-drought to Moderate Drought.



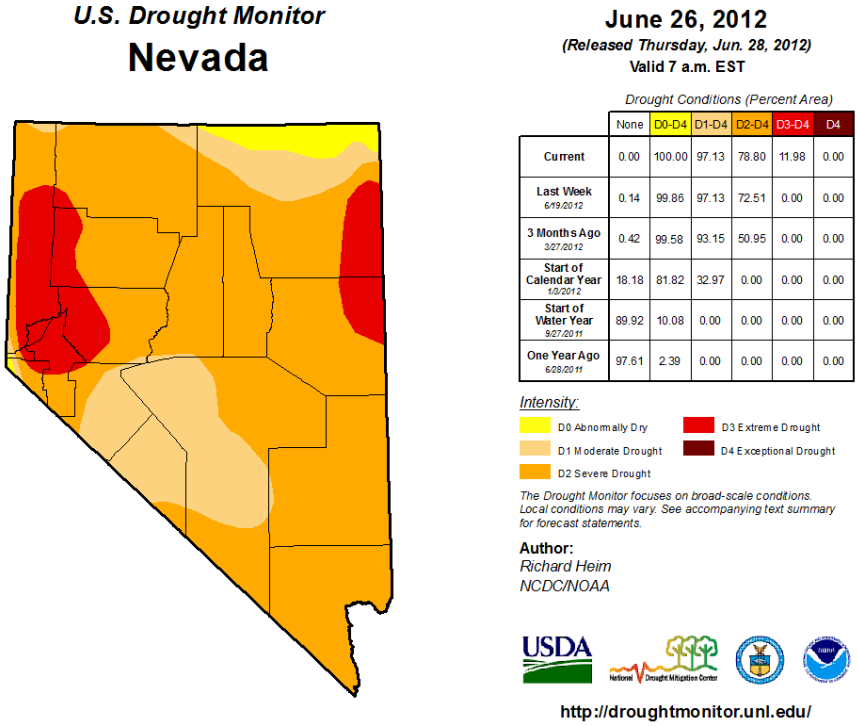


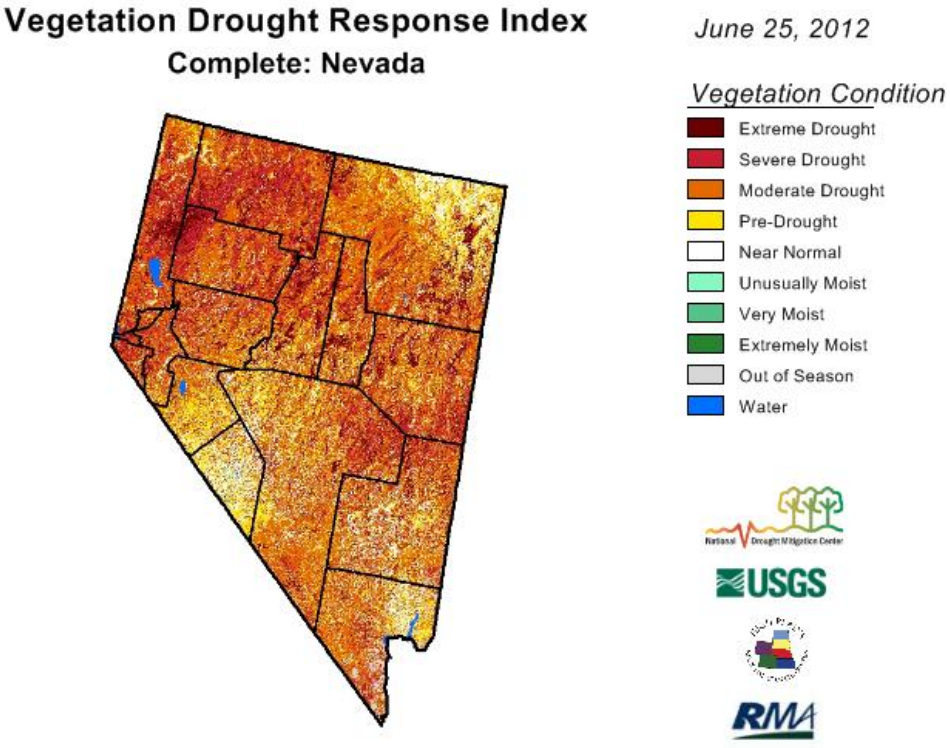
Picture 1-2. Photographs for comparison of average vegetation growth in September 2011 pre-drought, recorded as slight use. 2011 received 9.56 in. of precipitation. The 3 previous years received at least 90% of average, 2 of those years were above average and in the area the US Drought Monitor Map did not show any drought in 2011 except for September 6 and September 20.

2012

Monitoring in 2012 mainly consisted of visits to critical water sources within the HMA. The majority of grasses in the allotment showed heavy use (61-80%) There appears to be little soil moisture, however, the overall plant vigor is good at this time. Horse BCS was 5.

Figure 2. The U.S. Drought Monitor Map and VegDRI - Little Fish Lake HMA is displayed as being as in Severe Drought. VegDRI shows the area as Moderate to Severe Drought.





Picture 3. Photograph shows average vegetation growth in June 2012 with 6-20% use. 2012 received 5.13 in. of precipitation. The US Drought Monitor Map showed the area Severe Drought.

2013

Monitoring in 2013 consisted of visits to key areas and critical water sources as well as other water sources.

KA-1

Signs of drought were present including reduced shoot and leaf growth and reduced seed head development. Utilization on Key species was between 40-45%. Winterfat showed very little growth.

KA-19

Signs of drought were present including reduced shoot and leaf growth and reduced seed head development. Induced Senescence was noted on Indian ricegrass. Seeded grasses were small but had good vigor. Utilization was 15-27% on key species.

KA-22

Signs of drought were present including reduced shoot and leaf growth and reduced seed head development, 1" of growth on winterfat. This area is heavily used in the winter by horses.

KA-23

Signs of drought were present including reduced shoot and leaf growth and induced senescence. Native grasses were producing seed heads but with limited leaf growth. Most grasses were grazed at 41-60%.

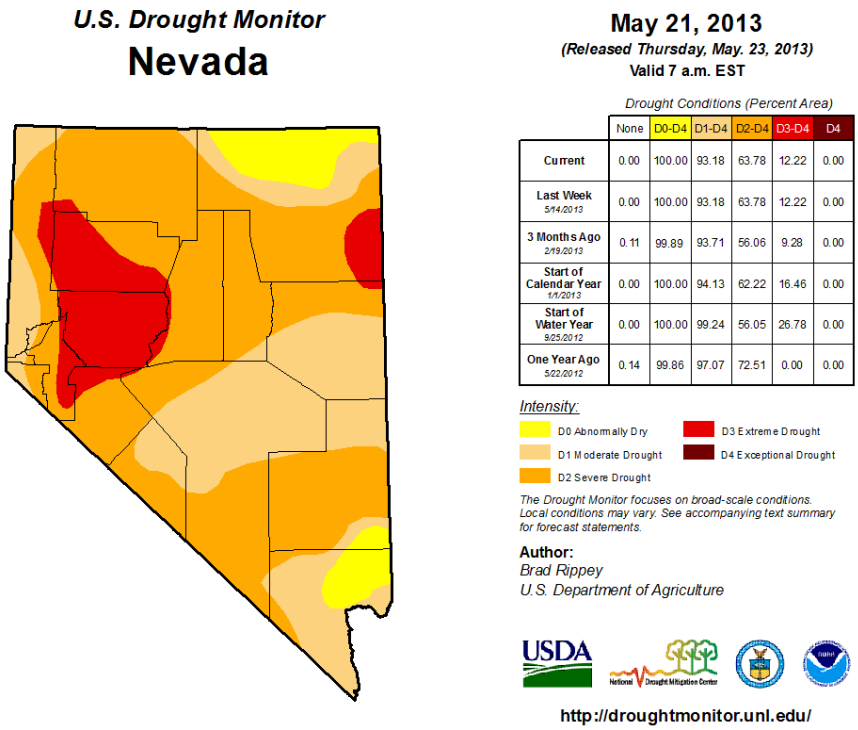
KA-25

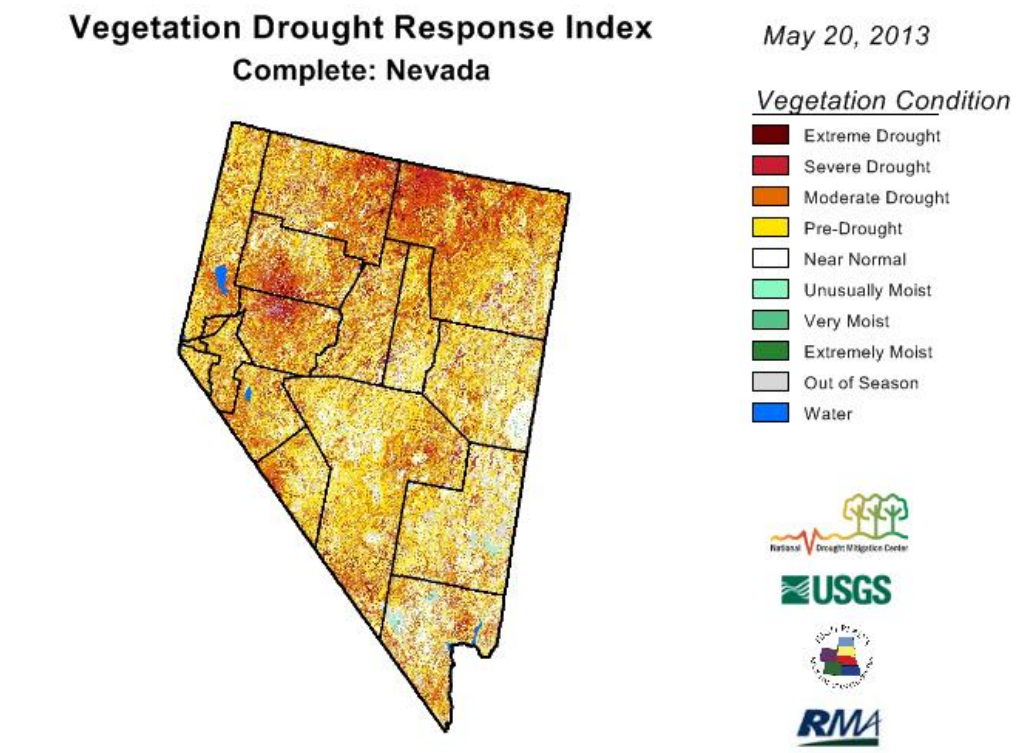
Signs of drought were present including reduced shoot and leaf growth, reduced seed head development and induced senescence. Utilization on Key species was less than 5%.

Overall drought monitoring showed signs of drought with reduced shoot and leaf growth, reduced seed head development and induced senescence in some areas. At the time of monitoring utilization ranged from less than 5% to over 60%. All horses seen had a BCS of at least 5.

All Riparian areas within LFL HMA showed overutilization by horses. Heavy trampling is abundant in and around available water sources.

Figure 3. The U.S. Drought Monitor Map and VegDRI - Little Fish Lake HMA is displayed as being in Moderate Drought. VegDRI show the area in Pre-Drought.





Picture 4. Photographs of average vegetation growth in May 2013. 2013 received 9.05 in. of precipitation. The US Drought Monitor Map shows the area in Moderate Drought.

2014

Monitoring in 2014 consisted of visits to Key Areas as well as critical water sources within the HMA. Riparian resources were also monitored for proper functioning condition. An inventory flight was conducted in March. Horse body condition and informal inventories were conducted to monitor health and numbers of horses in the area.

The 2014 March inventory resulted in a direct count of 168 horses within the HMA. The inventory was conducted as a simultaneous double count but the results have not been analyzed prior to the writing of this document.

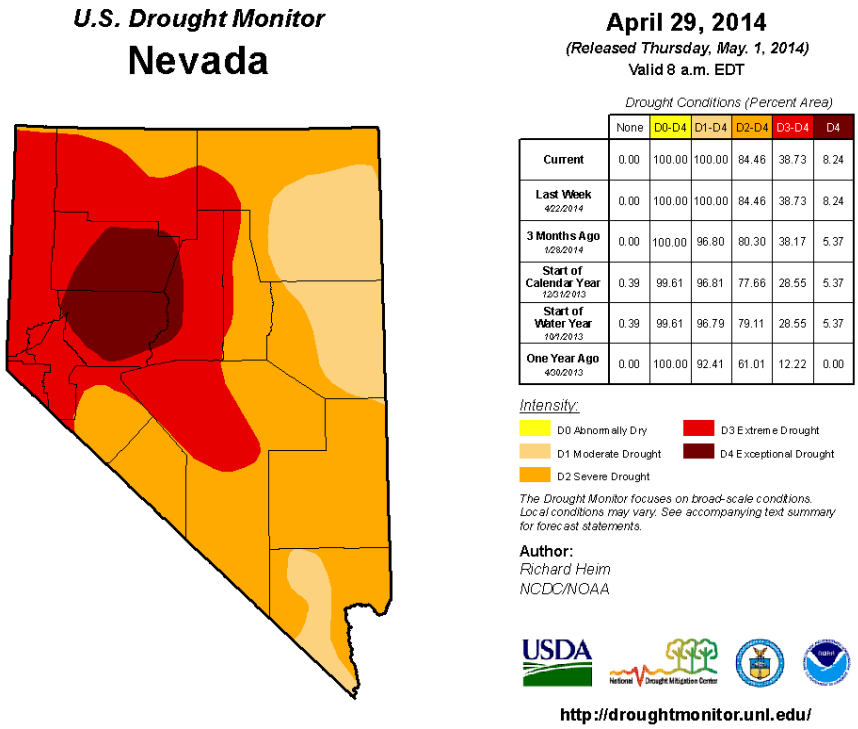
April 2014

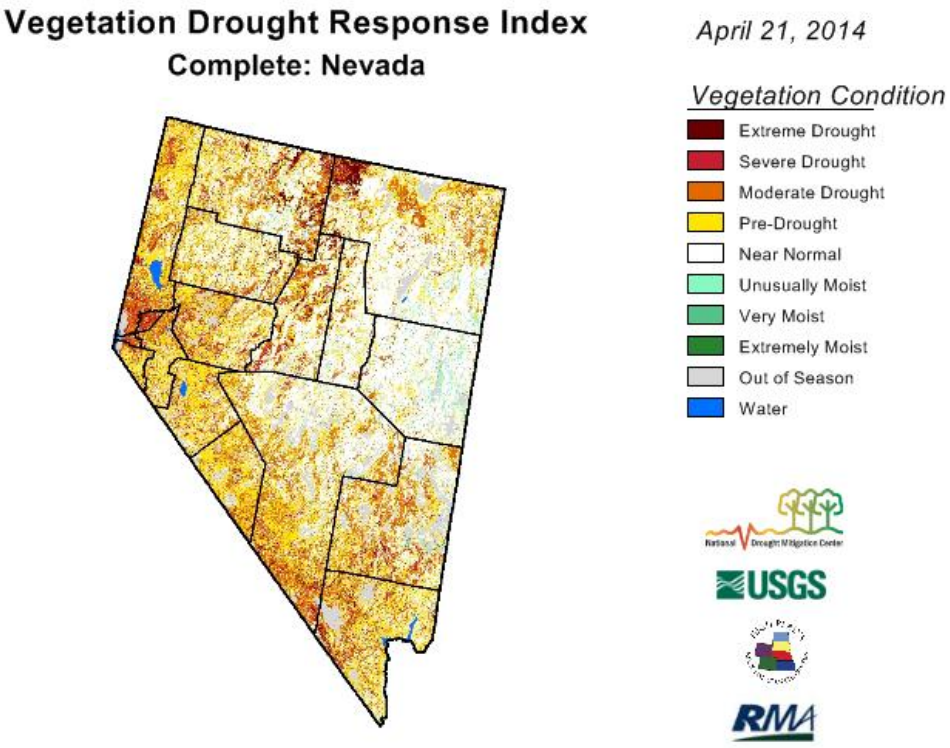
KA 23

Signs of drought were not present, soil moisture was very shallow (2 in), however utilization of key species was recorded at 50-60%

Other areas showed about 40% utilization on key species. Lots of Globemallow was present.

Figure 4. The U.S. Drought Monitor Map and VegDRI - Little Fish Lake HMA is displayed as being as in Severe Drought. VegDRI show the area in Near Normal to Pre-Drought.





Picture 5. Photographs of average growth in April 2014. 2014 received 8.2 in. of precipitation. The US Drought Monitor Map shows the area in Severe Drought.

June 2014

KA 23

Signs of drought were not observed, production was recorded as slightly below normal with 25% utilization on key species. Riparian areas were recorded as functional at risk.

KA 22

Signs of drought were not observed, production was recorded as slightly below normal with 55% utilization on key species.

Other locations within the HMA did not show any signs of drought and 30% utilization on key species.

The following are conclusions from the hydrologist from riparian monitoring on critical waters within the HMA.

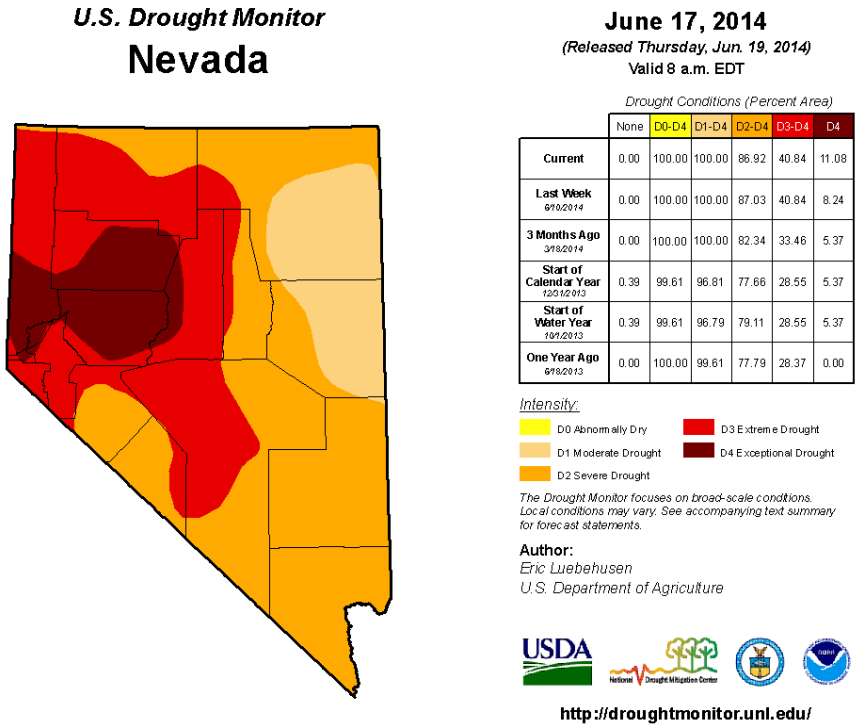
Clear Creek

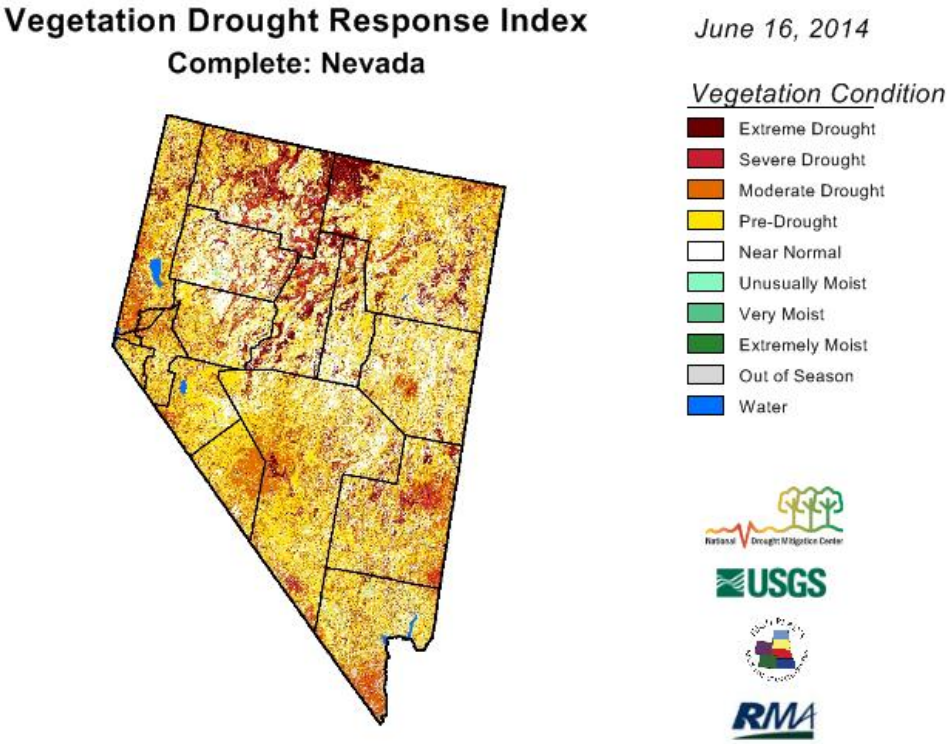
This stream segment is highly sensitive to disturbance and on a downward trend. Observations suggest that year-round over-utilization by horses is the causal factor. Under current management, the C4 (stable in the landscape position) channel will continue to transition to a much less productive G4, unstable gully. Horse reductions and/or fencing of the riparian area may be required to allow for recovery. If action is taken soon, the majority of the segment is very likely to recover and may even attain its natural potential. If livestock/horse use is allowed to continue (no fencing), it is recommended that a Multiple Indicator Monitoring site be installed to ensure an upward trend.

Sevenmile Spring

The hydrology and plant composition of the wetland has been adversely impacted by heavy and frequent use. Although scattered, desiccated livestock waste was noted, recent horse sign (stud piles, hoof prints) was extreme… The meadow is rated as non-functional...Trampling needs to be reduced, especially when soils are saturated. Recovery will take time and may be most pronounced when new sediment is delivered to the site during runoff events. It will be important for vegetation to have colonized the void spaces so that it can capture and retain the sediment; thereby filling in the spaces and restoring lateral flow through the uppermost soil horizon. Fencing this large area will be very costly, but uncontrolled and excessive horse use will make it very difficult to manage this meadow for PFC.

Figure 5. The U.S. Drought Monitor Map and VegDRI - Little Fish Lake HMA is displayed as being as in Severe Drought. VegDRI show the area in Near Normal to Pre-Drought.





Picture 6. Photographs of average growth in June 2014. 2014 received 8.2 in. of precipitation. The US Drought Monitor Map shows the area in Severe Drought.

Dec. 2014

An informal inventory was conducted in early December 2014. 190 horses were counted within the HMA boundaries. Upland vegetation was assessed and determined to be extremely over utilized, 70% or more percent utilization.

Picture 7: KA 23, All grass eaten to the dirt. Forage around Key Areas 19 and 22 were similar showing extreme utilization throughout the entire HMA. The extreme utilization is a direct result of the extreme overpopulation of horses within the HMA.

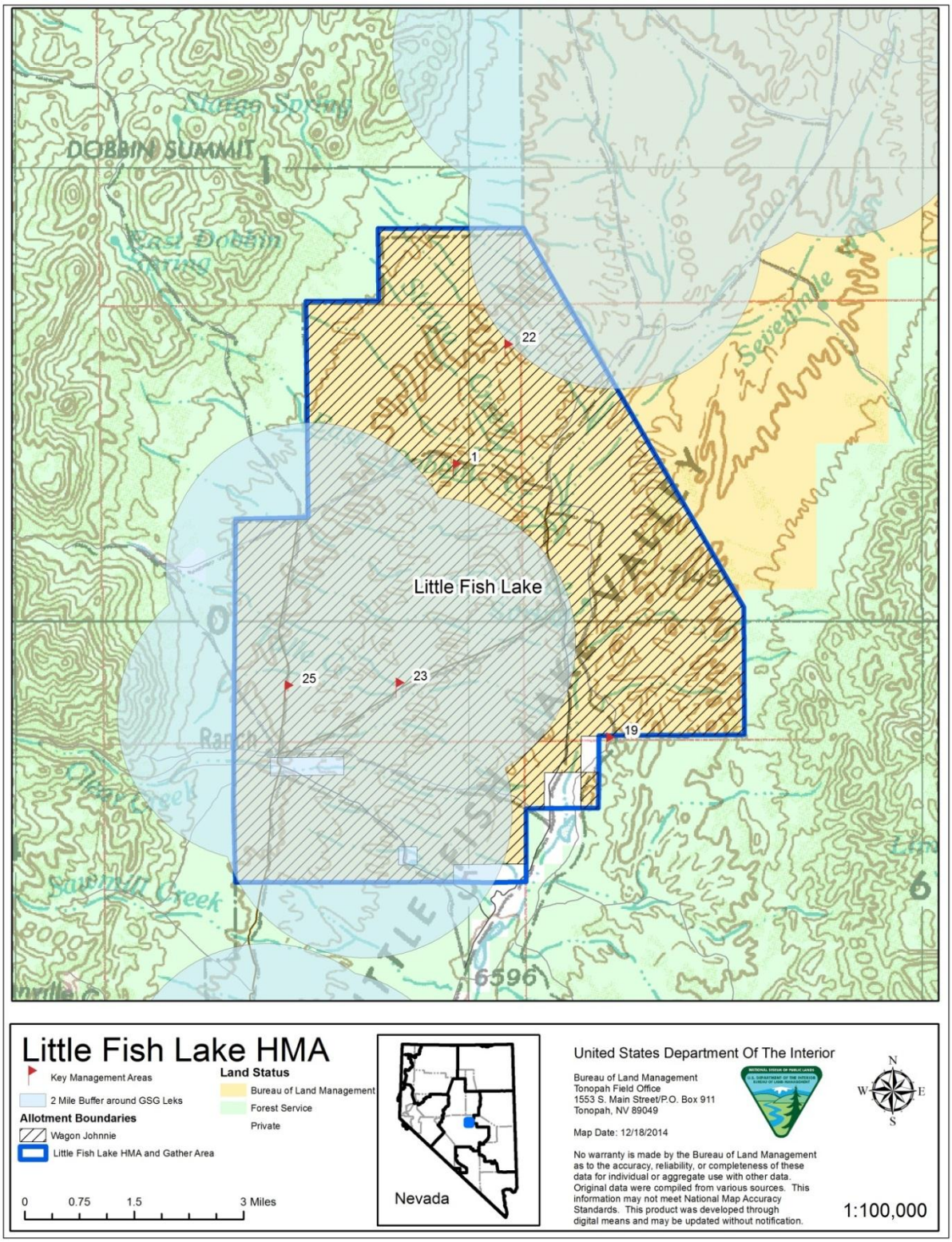


Figure 6. The map displays the HMA and allotment boundaries, the locations of the Key Management Areas for upland monitoring, and a 2-mile buffer around known Greater Sage-grouse leks, a BLM sensitive species, and candidate for listing under the Threatened and Endangered Species Act.

Limited forage due to overgrazing from horses, critical Sage-grouse habitat, and drought are issues affecting the management of Little Fish Lake HMA. The estimated wild horse population within the HMA is 200, with an AML set at 39.

Vegetation utilization and wild horse concentration surpass Drought Response Triggers as described in the Battle Mountain District (BMD) Drought Detection and Monitoring Plan (DDMP) within the HMA. In the past, Indian ricegrass, Crested Wheatgrass and Winterfat have all showed signs of drought stress. Signs of drought stress included reduced shoot/leaf growth or seed head development and some induced senescence has occurred. Native perennial species have been affected by drought in the past as well as extreme over utilization by horses. Additionally, horses have resorted to shrub use once growth from perennial grasses has been completely utilized.

Access to water is not a limiting factor within the Little Fish Lake HMA. Spring sources and associated creeks are numerous in the southern portion of the HMA, but signs of overuse, primarily bank erosion due to reduced riparian vegetation growth, are observed semi-regularly (see attached monitoring forms). Water in the northern portion of the HMA is limited to range improvements used to water cattle. Because cattle have not been grazing in the allotment or have only been there for short periods of time the troughs are not currently being used by horses. This increases the concentration of horses around the riparian areas in the southern portion of the HMA.

Due to overutilization the lack of grasses are a concern for the nesting success of sage-grouse, as Sveum et al. (1998) observed higher nesting success for nests placed in sagebrush steppe habitat with grasses taller than 18 cm (7.1 in), as the taller grasses resulted in decreased nest predation. Also, an abundance of forbs (greater or equal to 15%) and insects characterize ideal early brood-rearing habitat (Connelly et al. 2000). Action is recommended to prevent further impacts to critical wildlife habitat. The Nevada Department of Wildlife has been, and continues to be, consulted on the status of the Little Fish Lake HMA.

No livestock grazing is occurring within the allotment associated with Little Fish Lake HMA. Permittees have elected voluntary non-use of the Wagon Johnnie Allotment since the Fall of 2013.

Currently, Henneke Body Condition Scores (BCS) average 5.

Literature Cited:

Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28:967-985.

Sveum, C.M., J.A. Crawford, and W.D. Edge. 1998. Nesting Habitat Selection by Sage Grouse in South-Central Washington. Journal of Range Management 51:265-269.

Appendix 1- June 2014 Riparian Monitoring report

Riparian Report, June 2014

The District Riparian Crew (Alden Shallcross, Michelle Fast, Cheyenne Kelley) visited Wagon Johnnie and Reveille Allotments, as well as 6 potential water development projects located outside of Beatty from 6/2 to 6/6/2014. PFC assessments were performed in locations requested by the TFO and general observations were collected at the proposed water development sites outside of Beatty.

Wagon Johnnie

In response to Tonopah's concerns over the condition of riparian resources in the Wagon Johnnie Allotment, PFC assessments were performed on Clear Creek and Seven Mile Spring. Although additional riparian/wetland areas are present, Clear Creek was selected because it was reported to contain LCT and Seven Mile Spring was surveyed because it supports the largest wetland in the allotment.

Clear Creek

BLM manages the habitat for approximately ¾ miles of Clear Creek's perennial segment. This segment is sandwiched between Forest Service Land above and private land below the BLM portion. There is a fence dividing the Forest Service and BLM Lands. Water originates on the Eastern flank of the Monitor range and infiltrates into the alluvial deposits of the basin approximately ¼ mile past the private land. Although dimensions were not measured, observations indicate that the channel transitions between Rosgen E4 and C4, depending mostly on slope and magnitude of historical disturbance. As such, the BLM managed channel segment is classified as having 1) very high sensitivity to disturbance, 2) good recovery potential, 3) high sediment supply, 4) very high streambank erosion potential, and 5) very high vegetation controlling influence. As such, it is vital that ungulates are managed appropriately.
In accordance with the Sequence of Stream Type Occurrence Due to Morphological Change (Rosgen 1999), the channel will transition to a G4 (gully) if the disturbance continues. This process was observed at the lower reaches, where a stability threshold has been exceeded. If unabated, the associated channel incision will disconnect the channel from the floodplain, reduce base flows and bank storage, and minimize the riparian extent over time. This will have a profoundly adverse impact on the fish and wildlife habitat. This reach was classified as Functional at Risk with a Downward Trend (see form below).

Standard Checklist

Name of Riparian-Wetland Area: Clear Creek

Date: 6/4/2014 Segment/Reach ID: Wagon Johnny Allotment

Miles: 0.6 Acres:

ID Team Observers: Alden, Michelle, Cheyenne

Yes	No	N/A	HYDROLOGY
✓			1) Floodplain above bankfull is inundated in "relatively frequent" events
		✓	2) Where beaver dams are present they are active and stable
	✓		3) Sinuosity, width/depth ratio, and gradient are in balance with the landscape setting (i.e., landform, geology, and bioclimatic region)
	✓		4) Riparian-wetland area is widening or has achieved potential extent
✓			5) Upland watershed is not contributing to riparian-wetland degradation

Yes	No	N/A	VEGETATION
	✓		6) There is diverse age-class distribution of riparian-wetland vegetation (recruitment for maintenance/recovery)
✓			7) There is diverse composition of riparian-wetland vegetation (for maintenance/recovery)
✓			8) Species present indicate maintenance of riparian-wetland soil moisture characteristics
✓			9) Streambank vegetation is comprised of those plants or plant communities that have root masses capable of withstanding high streamflow events
✓			10) Riparian-wetland plants exhibit high vigor
	✓		11) Adequate riparian-wetland vegetative cover is present to protect banks and dissipate energy during high flows
	✓		12) Plant communities are an adequate source of coarse and/or large woody material (for maintenance/recovery)

Yes	No	N/A	EROSION/DEPOSITION
	✓		13) Floodplain and channel characteristics (i.e., rocks, overflow channels, coarse and/or large woody material) are adequate to dissipate energy
✓			14) Point bars are revegetating with riparian-wetland vegetation
	✓		15) Lateral stream movement is associated with natural sinuosity
	✓		16) System is vertically stable
✓			17) Stream is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)

(Revised 1998)

Remarks

Stream Segment is low gradient with potential to support Riparian woody & herbaceous vegetation. ~10 LCT were observed. Horse use is excessive & is the primary cause of degraded conditions. Streambanks are severely trampled. Woody vegetation is heavily utilized & unable to provide the cover needed for optimal LCT habitat. Animal trailing is so severe that in some locations, trails have captured part of Stream & diverted it to upland areas. Water quality is likely suffering, especially temperature. Trampling has widened stream channel & reduced desirable vegetation & replaced w/ colonizers

Summary Determination

Functional Rating:

Proper Functioning Condition	
Functional—At Risk	✓
Nonfunctional	
Unknown	

Trend for Functional—At Risk:

Upward	
Downward	✓
Not Apparent	

Are factors contributing to unacceptable conditions outside the control of the manager?

Yes		
No	✓	Excessive horse use

If yes, what are those factors?

____ Flow regulations	____ Mining activities	____ Upstream channel conditions
____ Channelization	____ Road encroachment	____ Oil field water discharge
____ Augmented flows	____ Other (specify) _____	

Figure 1: Lotic PFC form for Clear Creek.

Allotment: Wagon Johnny
Site: Clear Creek
Date: 6-4-14
2014/06/04
N38°49.321'
W116°28.699'

Allotment: Wagon Johnny
Site: Clear Creek
Date: 6-4-14

Photos 1a-c: Severe streambank alteration, woody utilization, and increased width/depth ratios

Photos 2a & b: Excessive utilization and trampling. Altered channel shape and dimension. Deposition of fine sediment. Increased water temperature and nutrient loading expected as woody species are reduced and surface area of channel is increased.

Photo 3: Horse trailing diverting flow away from main channel at several locations.

Photo 4: Excessive trampling and reduced channel competence.

Photo 5: Change in entrenchment ratio. Channel has begun to incise below this photo point and instability threatens the natural channel/floodplain connection above. A series of small headcuts have begun to incise the lower ~25% of the reach and are symptomatic of vertical instability caused by the over-utilization of riparian vegetation and mechanical hoof action. This is the beginning of a downward trend in channel morphology to a gully (C4 to G4). Upland vegetation is encroaching and shallow groundwater appears to have dropped.

Photos 6a & 6b: The series of small headcuts observed in photo 6 moved through this segment and incised it. Historically saturated soils have drained, enabling upland vegetation (poor stabilizers) to encroach on the riparian habitat. This reinforces the downward trend and increases the rate of erosion/incision, putting the entire system at risk.

Photo 7: Channel is well connected to the floodplain, just above the headcuts mentioned in photos 5 & 6. Maintaining this natural shape, dimension, and profile is paramount to preserving this habitat.

Photo 8: Loafing area.

Conclusion:

This stream segment is highly sensitive to disturbance and on a downward trend. Observations suggest that year-round over-utilization by horses is the causal factor. Under current management, the C4 (stable in the landscape position) channel will continue to transition to a much less productive G4, unstable gully. BLM needs confirmation on whether LCT are present in this reach, as it will have an impact on the way it should be managed. Horse reductions and/or fencing of the riparian area may be required to allow for recovery. If action is taken soon, the majority of the segment is very likely to recover and may even attain its natural potential. If livestock/horse use is allowed to continue (no fencing), it is recommended that a Multiple Indicator Monitoring site be installed to ensure an upward trend.

Seven Mile Spring

Seven Mile Spring (series of subsurface discharge points) is a Lacustrine Wetland. It appears to receive most of its water through groundwater seepage, but likely receives runoff after snowmelt and/or major precipitation events that will pond in the meadow complex. The hydrology and plant composition of the wetland has been adversely impacted by heavy and frequent use. Although scattered, desiccated livestock waste was noted, recent horse sign (stud piles, hoof prints) was extreme.

Via aerial imagery, the meadow is estimated to be ~ 100 acres. However, the portion which exhibits all wetland indicators (hydrology, soils, vegetation) is much smaller. Hummocks several inches to over 1 foot deep dominate the area and accelerate the rate at which water travels out of the system. This process is exacerbated by a number of horse trails that function as artificial stream channels when water levels are high, which drain the meadow. As a result, the spatial extent of the wet meadow is minimized and appears limited to small pools around groundwater discharge points. The meadow is rated as non-functional.

Photo 1: Severe trampling and ungulate trails through meadow. These deep void spaces have created surface water connections in locations that subsurface water movement once dominated. The result is rapid transfer of water out of the system and a conversion from hydric to mesic soils.

Photo 2: Trampling.

Photo 3: Trampling and trailing.

Photo 4: Scattered horse droppings.

Photo 5: Transition from mesic to hydric soils.

Photo 6: Close-up of hydric soils. Lateral water transfer through soil replaced by surface water flow between mounds.

Photo 7: One of the springs that supports this meadow complex.

Photos 8a & 8b: Drained and compacted soils. Loss of habitat on the meadow fringe.

Photo 9: Water moving directly towards outlet instead of spreading out and moving through soil.

Photo 10: Outlet where wetland drains to channel.

Lentic Standard Checklist

Name of Riparian-Wetland Area: Seven Mile Spring
Date: 6/4/2014 Area/Segment ID: Wagon Johnie Allotment Acres: ~100 Acres
ID Team Observers: Alden Shallcross, Michelle Fast, Cheyenne Kelly

Yes	No	N/A	HYDROLOGY
✓			1) Riparian-wetland area is saturated at or near the surface or inundated in "relatively frequent" events
	✓		2) Fluctuation of water levels is not excessive
	✓		3) Riparian-wetland area is enlarging or has achieved potential extent
✓			4) Upland watershed is not contributing to riparian-wetland degradation
✓			5) Water quality is sufficient to support riparian-wetland plants
	✓		6) Natural surface or subsurface flow patterns are not altered by disturbance (i.e., hoof action, dams, dikes, trails, roads, rills, gullies, drilling activities)
✓			7) Structure accommodates safe passage of flows (e.g., no headcut affecting dam or spillway)

Yes	No	N/A	VEGETATION
✓			8) There is diverse age-class distribution of riparian-wetland vegetation (recruitment for maintenance/recovery)
✓			9) There is diverse composition of riparian-wetland vegetation (for maintenance/recovery)
✓			10) Species present indicate maintenance of riparian-wetland soil moisture characteristics
✓			11) Vegetation is comprised of those plants or plant communities that have root masses capable of withstanding wind events, wave flow events, or overland flows (e.g., storm events, snowmelt)
	✓		12) Riparian-wetland plants exhibit high vigor
	✓		13) Adequate riparian-wetland vegetative cover is present to protect shoreline/soil surface and dissipate energy during high wind and wave events or overland flows
	✓		14) Frost or abnormal hydrologic heaving is not present
	✓		15) Favorable microsite condition (i.e., woody material, water temperature, etc.) is maintained by adjacent site characteristics

Yes	No	N/A	EROSION/DEPOSITION
✓			16) Accumulation of chemicals affecting plant productivity/composition is not apparent
	✓		17) Saturation of soils (i.e., ponding, flooding frequency, and duration) is sufficient to compose and maintain hydric soils
✓			18) Underlying geologic structure/soil material/permafrost is capable of restricting water percolation
	✓		19) Riparian-wetland is in balance with the water and sediment being supplied by the watershed (i.e., no excessive erosion or deposition)
		✓	20) Islands and shoreline characteristics (i.e., rocks, coarse and/or large woody material) are adequate to dissipate wind and wave event energies

Remarks

Horse poop & hoof marks were abundant. Minimal old cattle sign was present. Trampling & trailing was extreme and is allowing the soils to rapidly drain. Trailing is creating channels that accelerate the transfer of water from the lacustrine meadow and into the channel downgradient. Voids caused by deep hoof prints is significantly increasing the hydrologic connections across the meadow. The extent of hydric soils has been reduced to a fraction of the site potential.

Summary Determination

Functional Rating:

Proper Functioning Condition	_____
Functional—At Risk	_____
Nonfunctional	✓
Unknown	_____

Trend for Functional—At Risk:

Upward	_____
Downward	_____
Not Apparent	_____

Are factors contributing to unacceptable conditions outside the control of the manager?

Yes	___
No	✓

If yes, what are those factors?

___ Dewatering ___ Mining activities ___ Watershed condition
___ Dredging activities ___ Road encroachment ___ Land ownership
___ Other (specify)_____

Conclusions:
Trampling needs to be reduced, especially when soils are saturated. Recovery will take time and may be most pronounced when new sediment is delivered to the site during runoff events. It will be important for vegetation to have colonized the void spaces so that it can capture and retain the sediment; thereby filling in the spaces and restoring lateral flow through the uppermost soil horizon. Fencing this large area will be very costly, but uncontrolled and excessive horse use will make it very difficult to manage this meadow for PFC. An ID team should discuss options with management.

Data collection forms/reports 2011 to Present.

2011

2011

Bureau of Land Management

jdiez

[LITTLE FISH LAKE HMA]

Field Work Report:Little Fish Lake HMA

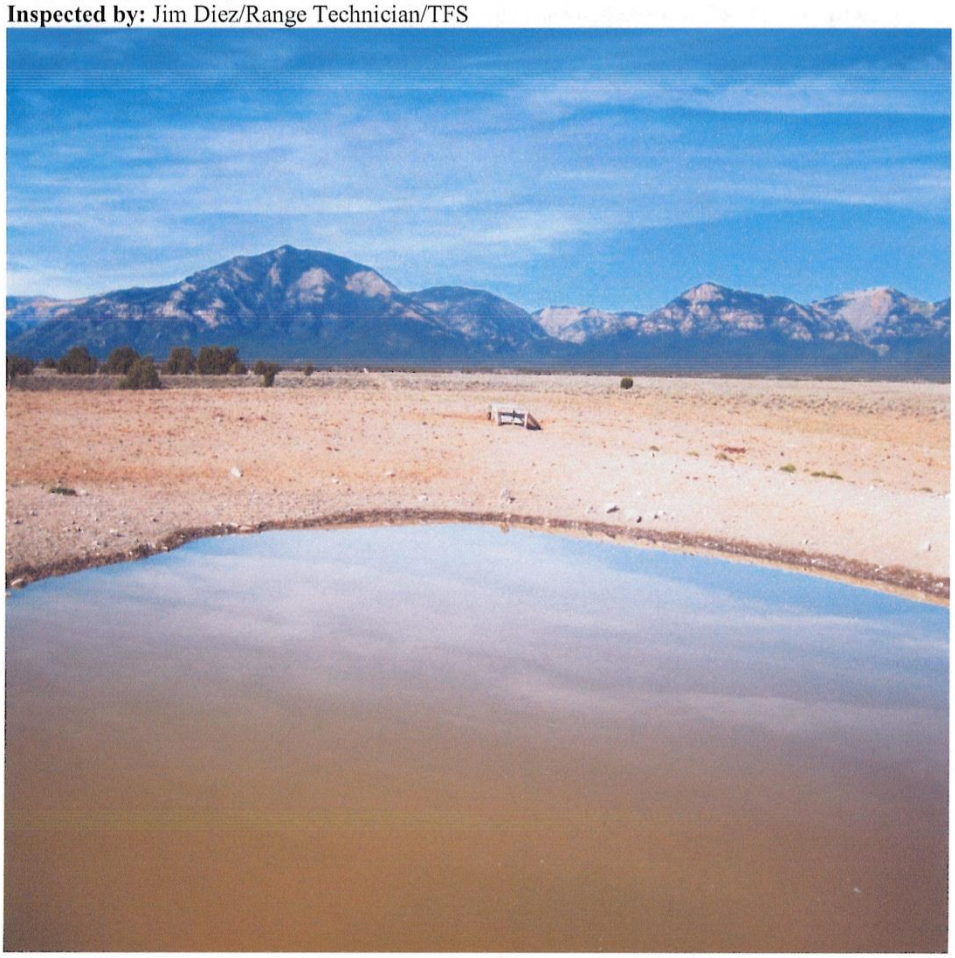
Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

The following was found:

Location T.12N.,R49E.,Sec.25. The majority of the horses in the Little Fish Lake HMA were extremely flighty. Unless you surprised them, the closest you could get is about one mile before they would get scared and run. These four head of horses, and the other horses that could be accurately scored, had body scores of #6.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS



Tule Pipeline terminal trough (T.12N.,R49E.,Sec.14) One of two locations for animals to get water. This reservoir had a lot of antelope drinking at it when I pulled up. Photo looking west.

Photo UTM= 549654E x 4300029N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Tule Pipeline Ext. terminal trough (T.12N.,R.49E.,Sec.26) One of two locations for animals to get water. There were about seventy head of horses lounging approximately two miles north of this reservoir. Photo looking west.

Photo UTM= 549310E x 4303851N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Crested wheat seeding amid black sage. (T.12N.,R.49E.,Sec.26) Note straw hat in photo for comparison. There are some rice grass seedings in this area. Photo looking south.

Photo UTM= 549149E x 4300220N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Crested wheat seeding (slight use). Photo UTM= 549149E x 4300220N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

This is about as close as I was able to get from the majority of the horses. These horses were located at approximately T.12N.,R49E.,Sec.24. Photo looking east.

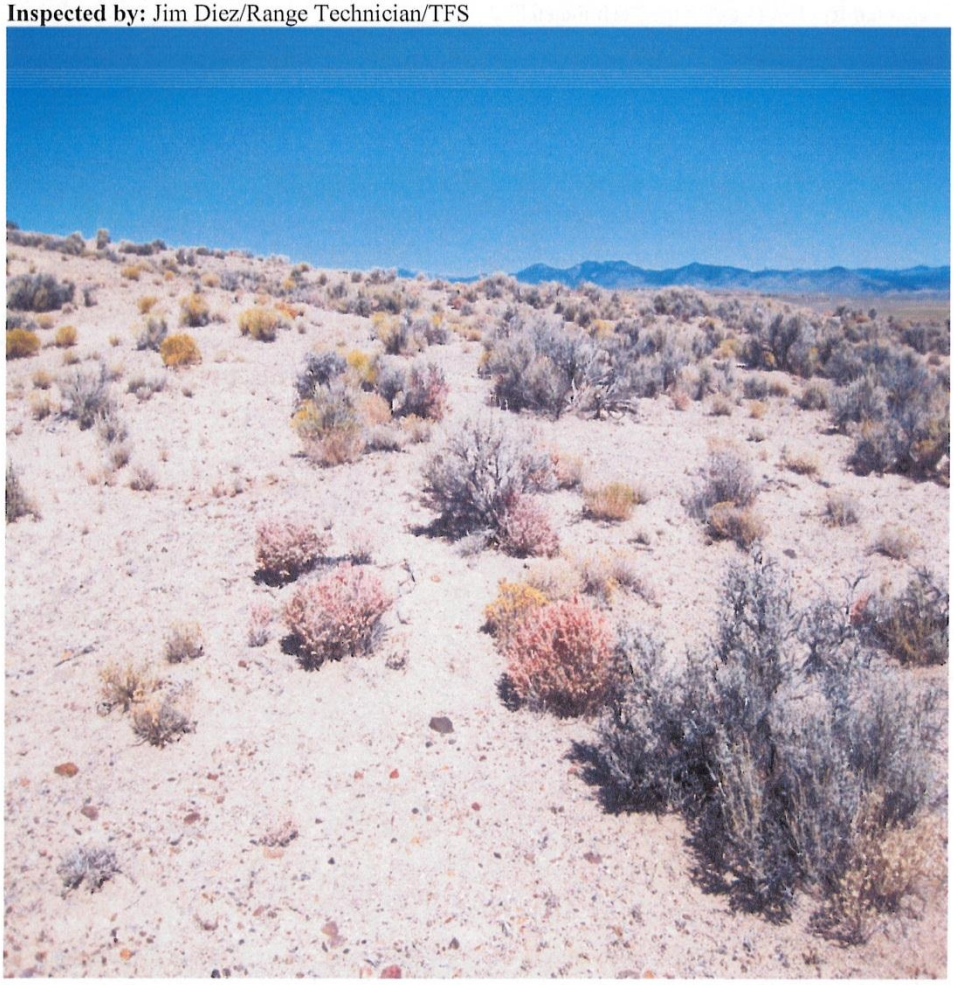
Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Crested wheat seeding (slight use). Photo UTM= 550913E x 4303493N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

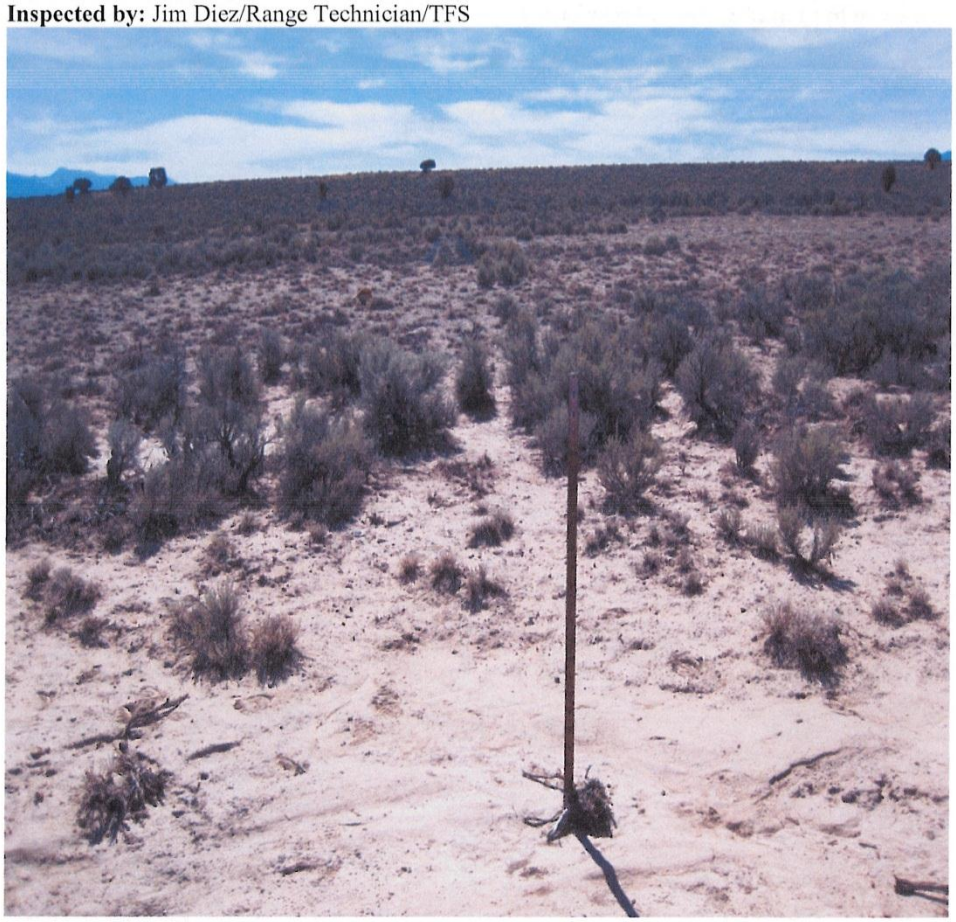


Shad scale in the area had negligible use.

Photo UTM= 551586E x 4303234N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

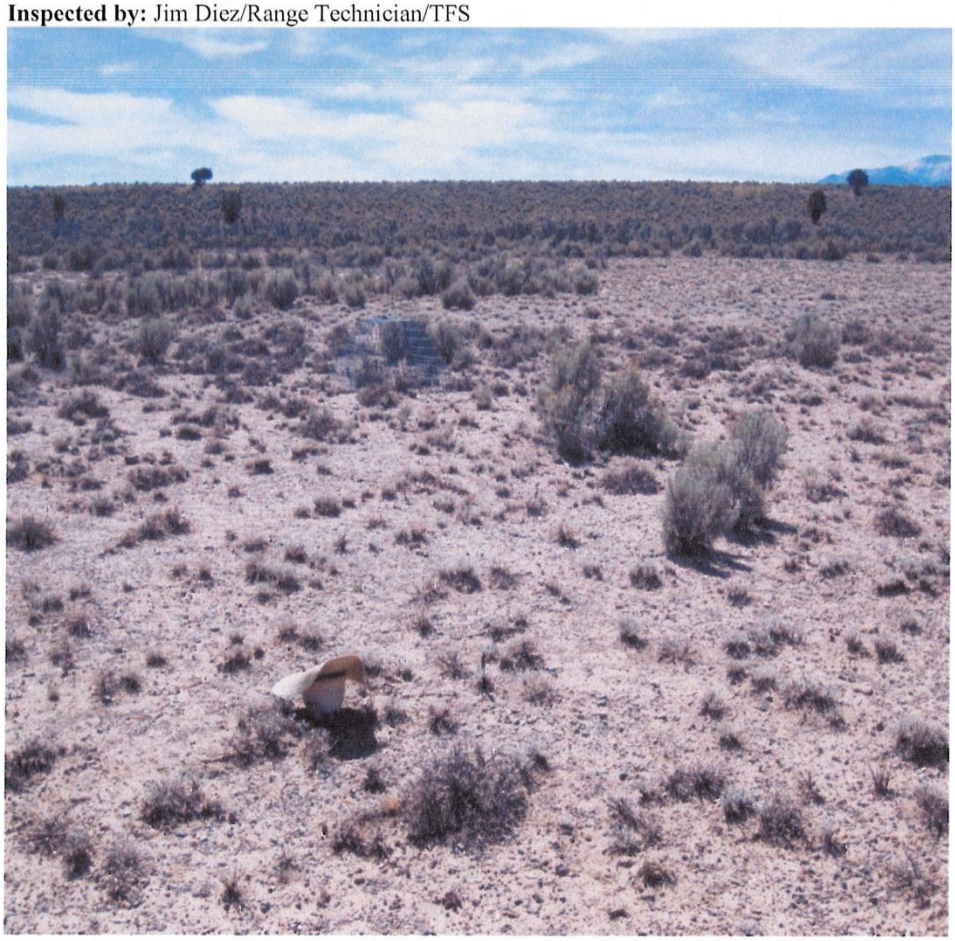


(T.12E.,R49E.,Sec.13). White sage valley bottoms all show over use. It has been my observation that, wild horses tend not to prefer or eat white sage when given the choice. But, instead will eat the grasses in the area, along with bud sage, and in some cases spiny menodora. Note the straw hat for comparison, and the utilization cage, possibly from U.S. Forest Service, in the back ground. Photo looking south.

Photo UTM= 549741E x 4303457N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS



White sage valley bottom. Note the black writing pen to the right of the straw hat, with the utilization cage in the back ground. Photo looking southwest. (T.12E.,R49E.,Sec.13)

Photo UTM= 549741E x 4303457N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

White sage valley bottom over use. (T.12E.,R49E.,Sec.13)

Photo UTM= 549741E x 4303457N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Utilization cage with bud sage, one small winter fat, and two indian rice grass plants (in seed).

Photo UTM= 549741E x 4303457N.

Field Work Report: Little Fish Lake HMA

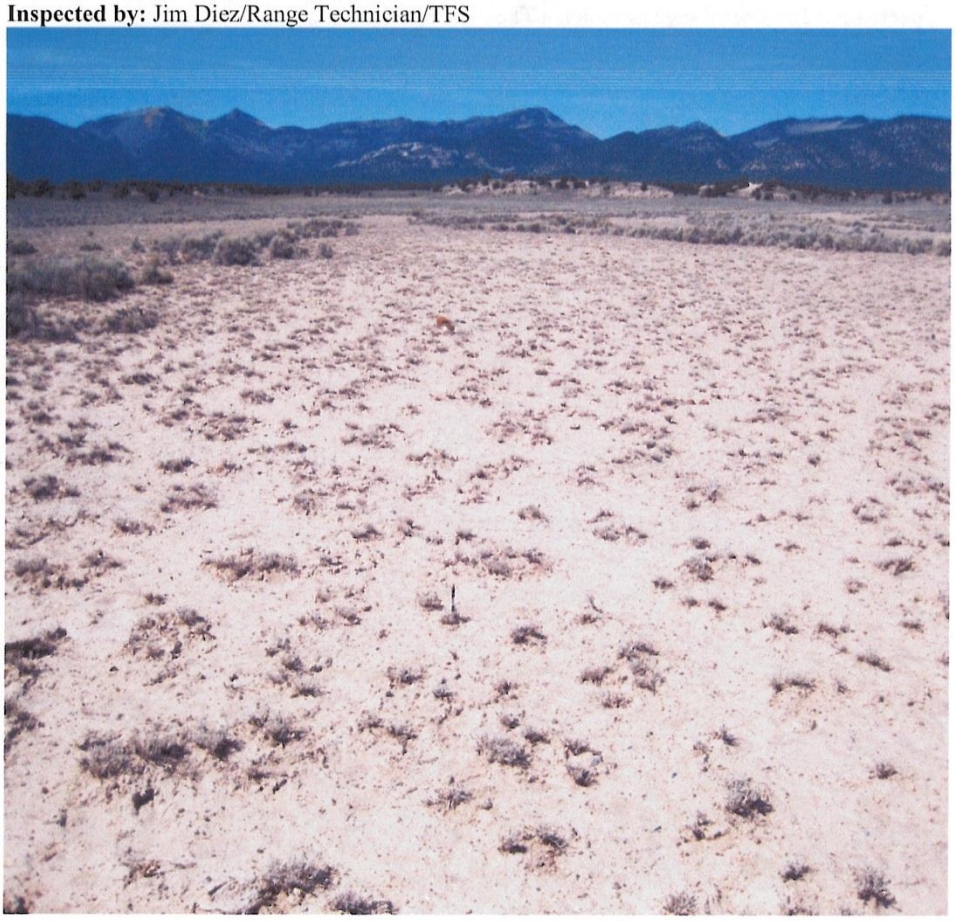
Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Utilization cage with bud sage, one small white sage, and two indian rice grass plants (in seed). Note the black writing pen in the photo for comparison.

Photo UTM= 549741E x 4303457N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS



White sage valley bottom with over use. Note the black writing pen in the foreground, and the straw hat in the back ground. Photo looking west. (T.12E.,R49E.,Sec.11)

Photo UTM= 549233E x 4304468N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Over used white sage in a valley bottom side drainage. Note the straw hat in the back ground for comparison. There were horse tracks with sign and old cow sign at this site. Photo looking west.

(T.12E.,R49E.,Sec.11)

Photo UTM= 548154E x 4305820N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Over used white sage in a valley bottom side drainage. Note the black writing pen to the right of the straw hat for comparison. There were horse tracks with sign and old cow sign at this site. . (T.12E.,R49E.,Sec.11)

Photo UTM= 548154E x 4305820N.

Field Work Report: Little Fish Lake HMA

Date: 9/28/2011
Location: Little Fish Lake HMA.
Work performed: Inspection of water and feed sources.
Inspected by: Jim Diez/Range Technician/TFS

Over used white sage in a valley bottom side drainage. Note the black writing pen to the right of the straw hat for comparison. There were horse tracks with sign and old cow sign at this site. . (T.12E.,R49E.,Sec.11)

Photo UTM= 548154E x 4305820N.

WILD HORSE HEALTH STATUS:

The majority of the horses in the Little Fish Lake HMA were extremely flighty. Unless you surprised them, the closest you could get is about one mile before they would get scared and run. Horses that could be accurately scored had body scores of #6. No sick or injured horses were seen on this inspection.

FORAGE CONDITION:

Due to a favorable precipitation year the vigor of the plant life is very good. However, due to over use on some plant species, other species, mainly grasses have been effected. The Little Fish Lake HMA is in the Wagon Johnny Grazing Allotment. So, this means the land is grazed by domestic cattle, wild horses, as we as antelope and possibly deer and elk. I was told, elk had been braking fence lines in this allotment recently.

There were two water locations available for horses on this inspection (see photos).

2012

2012

Bureau of Land Management

HMA Drought Monitoring

FIELD REPORT FOR MAY 23, 2012

Visit to Little Fish Lake Valley HMA

Date: 5/23/2012
Location: Little Fish Lake Valley HMA
Work performed: Inspection Sevenmile Spring and vegetation resources.
Inspected by: *Andersen*, Reilly

LITTLE FISH LAKE VALLEY HMA

Sevenmile Spring Site UTM= 552545E x 4300647N

This is a nice riparian area - approximately 100+ ft. wide by 800 ft. long and an avg. of 6" deep - which is being utilized by horses and cattle. Very fresh horse droppings and tracks were seen. Scattered, less fresh (months old) cattle droppings and tracks were visible. There were muddy areas of water where horses had recently been in the riparian area although no horses were visible at the time of visit.

Wild Horse Body Condition

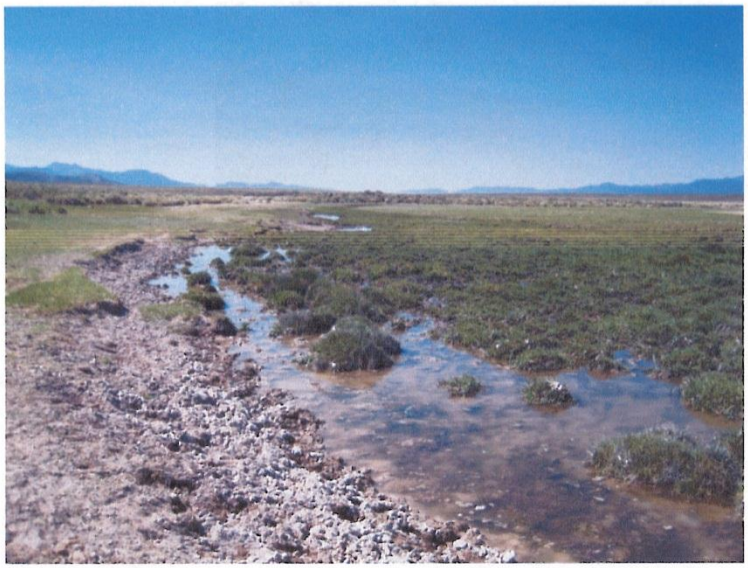
No wild horses were observed near spring. Horses (5 adults, 2 yearlings, 2 foals) were seen while driving to the spring – approx. 3 miles north of Upper Fish Lake on the main road, FS139. These horses were quite a distance from the road but viewed through binoculars, looked to be in good condition.

Vegetation Condition

Riparian area was extensive: sedges, Basin Wild Rye, dandelions, shooting stars, and other unknown riparian vegetation. Basin Wild Rye is being utilized by horses.

Drought Related Concerns

At this point, there seem to be no related concerns to wild horses or wildlife in the Little Fish Lake Valley HMA.



Sevenmile Spring riparian area - standing on eastern edge, looking south down the valley

Looking southwest across extensive riparian area of Sevenmile Spring

Sevenmile Spring riparian area showing hummocking and fresh horse tracks

Looking northwest along eastern edge of Sevenmile Spring riparian area

2013

Bureau of Land Management

HMA Drought Monitoring

FIELD REPORT FOR MAY 23, 2013

Visit to Little Fish Lake HMA

Date: 5/23/2013
Location: Dobbin Trough and trough SE of Dobbin Trough, Twin Circle Springs and Warm Springs (Private)
Work performed: Drought Monitoring

Inspected by: *Andersen*

Little Fish Lake HMA

Dobbin Trough **Site UTMs = 546602E x 4301732N**

This set of two troughs is dry and looks to have been dry for some time. There is a large area surrounding the troughs that is devoid of the black sagebrush which makes up the majority of the vegetation in north Little Fish Lake Valley. Growing in this largely bare ground area is crested wheat grass. There is quite a bit of horse sign in and around this area and the wheat grass shows sign of utilization.

Horse sign near Dobbin Trough showing stud pile and globemallow

Dry troughs

Close up of grazed and ungrazed crested wheat grass

Troughs in large bare area approx. 2 miles SE of Dobbin Trough

UTMs = 549674E x 4300002N

On Google earth, there appeared to be a lot of trailing leading into another bare area approximately 2 miles southeast of Dobbin Trough. Driving down to this area, I noticed that there were horses in the middle of the "bare" area. They ran off to the north as I approached. This area is very similar to the Dobbin Trough area, having two dry troughs, lots of horse sign, and the "bare" area is actually occupied by grazed and ungrazed crested wheat grass.

Horses in the large "bare" area SE of Dobbin Trough

Fresh horse sign near the troughs

Dry troughs

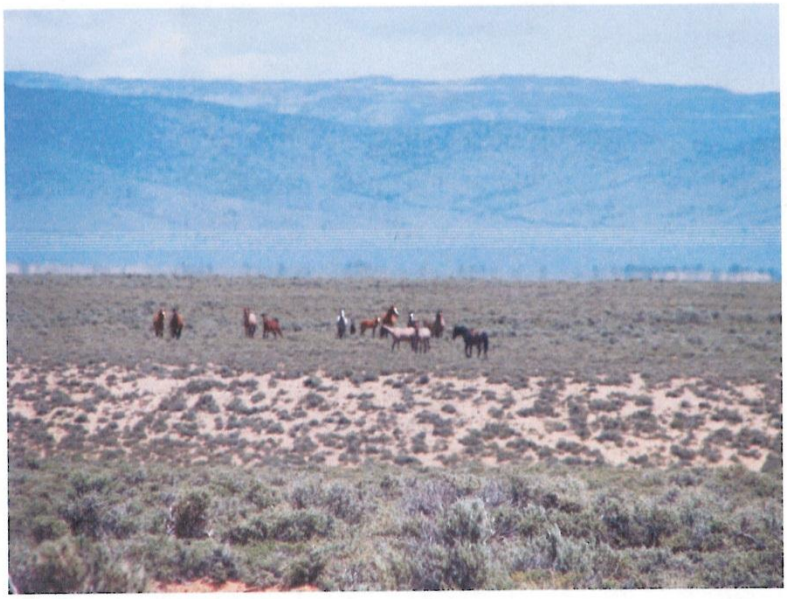
Grazed and ungrazed crested wheat grass growing in the area around the troughs

Close up of healthy crested wheat grass showing lots of gravel and bare ground surrounding the plant

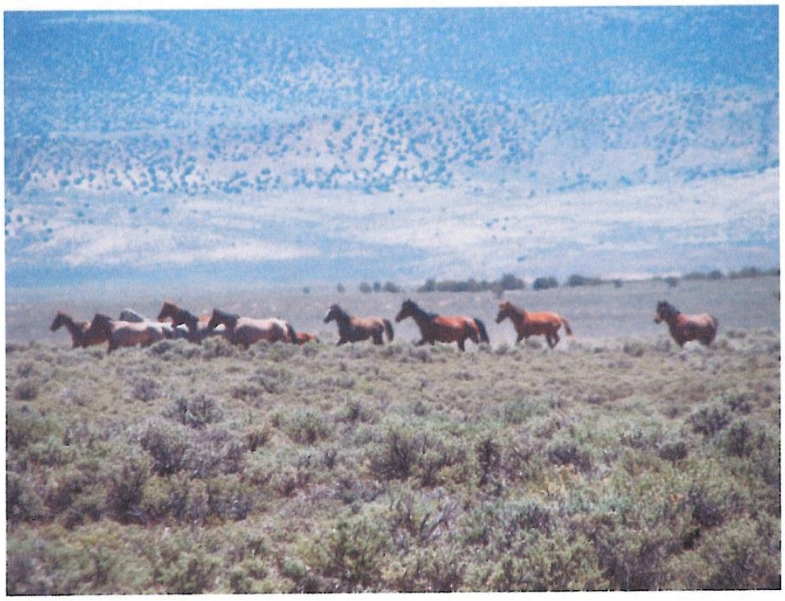
A thick area of ungrazed crested wheat grass

Wild Horse Body Condition

I did see 5 horses on the southwest edge of Little Fish Lake as I drove up into the valley. They were too far away and moved off quickly to the west so I was not able to get a good view of body condition on these horses. I saw 3 bands of horses totaling 30+ in the Dobbin Trough area. The first band of 11+3 horses was seen approx. 2 miles north of Clear Creek but they started to run and eventually joined another band to the north which then in turn joined up with the band that ran off of the bare area surrounding the dry troughs shown above. There was some scuffling, probably between stallions, as the three groups converged. They then strung out along the ridge top to the north and kept an eye on me while I was photographing the area. There were five horses that were closer than the others and watched me intently. I had the feeling that they were waiting for me to drive away so that they could come back into the crested wheat grass area. All of these horses looked to be in good condition with high spirits and all moving well. I did not get close enough to get a real good look at body condition but with binoculars, all looked to be in good shape.



First set of horses encountered in northern Little Fish Lake Valley: 11 adults, 3 foals



Same set of horses on the run

Some of the 30+ horses after the 3 groups converged

Vegetation Condition

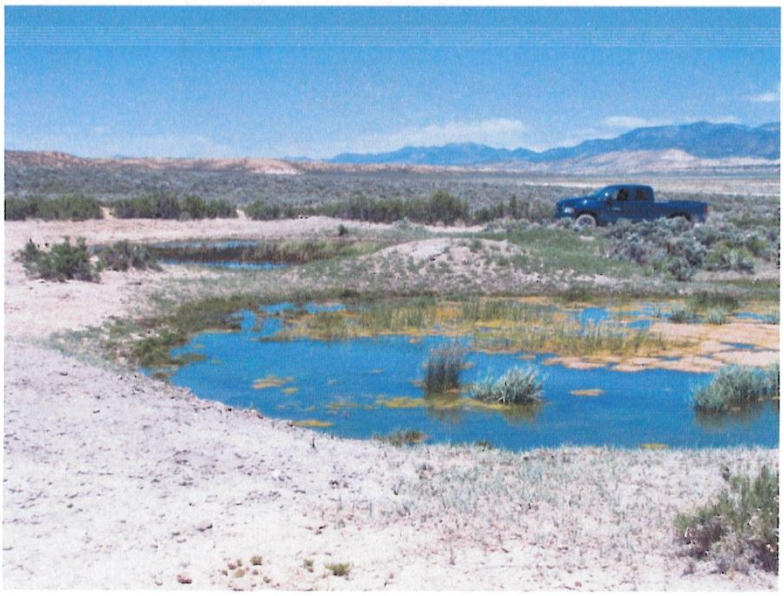
The horses seem to be drawn to the areas around the dry troughs where the crested wheat grass is growing. The vast majority of the surrounding area is predominantly black sagebrush. Walking around through this area, what little Indian ricegrass I could find showed signs of repeated grazing; I only found one ricegrass plant with a single seed stalk.

Typical vegetation cover in north Little Fish Lake Valley consisting mostly of black sagebrush

Cropped Indian ricegrass plant typical of all found in the area

Twin Circle Springs **UTMs = 548235E x 4290147N**

These small ponds are approx. 3 ½ miles north of Little Fish Lake Valley Ranch. They are *right* on the northern edge of private property for the ranch, which is surrounded by Forest Service property. On Google earth they look like two small circles, hence the name given to them for reference.



The two excavated "ponds" showing bare ground surrounding them

Photo looking south showing mounds of excavated dirt, bare ground showing hoof action, heavy vegetation growth in the ponds

Runoff from one of the ponds showing riparian grass

Hoof prints in the runoff area

Three horses that were grazing south of the ponds. These horses were some distance away so even with binoculars, I could not get a good read on their body condition.

Warm Spring & Upper Warm Spring (Private) **UTMs = 548793E x 4283150N**

These springs are located on private property. It was not posted so I went through the gate and followed recent ATV tracks up a 2-track road to Warm Spring. Warm Spring has an abundance of fresh water bubbling up into a pond and then running downstream into a large inundated area below the main pond. There is a lot of structure - wood and metal and piping - lying around. There was horse sign in the denuded area to the east of the spring and along the road coming in – both inside and outside the gate. The road fades away near the area of Warm Spring and I did not have time to walk from Warm Spring to Upper Warm Spring to check it out. However, on Google earth, Upper Warm Spring looks to cover in more area with water and riparian vegetation. Since these two springs are on private property, and seem to be a constant, reliable source of fresh water, I do not see any need for follow-up visits to this area. I did not see any horses in the area today and what sign I did see shows some horse visitation but not excessive horse use.

Pool area where piped spring bubbles up

Looking west from pool area. Water is "running" downhill

Stud pile and other horse droppings and hoof prints in the denuded area where I parked

Large wet area below the pond showing hummocking from hoof action

Vegetation Condition

Stopping along the road after leaving the private property, which then is on Forest Service, I surveyed the vegetation and found a shrub community of greasewood, rabbitbrush and sagebrush. There was quite a bit of an unknown short-growing grass, possibly saltgrass, that is not being utilized. And also Indian ricegrass with probably around 50% of the plants utilized. However, I did not seed stalks on any of the ricegrass plants, even those that had not been grazed.

Drought Related Concerns

The troughs up north are dry and the Warm Spring and Upper Warm Spring area are on private property and have an abundance of water. I do not see a need to revisit these areas. Of the areas monitored on today's visit, the only one that I recommend revisiting would be the Twin Circle ponds, maybe once mid-summer and again in the fall, to assess water levels and vegetation condition surrounding this area.

2013

R

DOUGHT MONITORING SUMMARY

Allotment/HMA: Wagon Johnnie | Use Area: KA 23 | UTMS N: 054877 E: 4298620

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site KA 23

Examiner(s): CDH, OKP, ASB Date: 6/11/13

Drought Indicators: U.S. Drought Monitor Report: ☒ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☒ Pre-Drought ☒ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☒ Yes ☐ No Rationale: Drought induced stress

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
			2	

Water ☒ Available ☐ Unavailable Rationale: 1 mile away

Signs of Drought Stress ☒ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☒ Reduced shoot & leaf growth ☐ Reduced seed head developement ☒ Induced senescence ☐ Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

ELJU- ACHY- seedheads / ELEL- minimal growth
* most moderately grazed 40-60% (HORSES)

Drought Response Action Recommendations: _____

[1]**Average stubble height**. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization**. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site**. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score**. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Russian Wildrye-

Key Species

Study Number	Date	Examiner
WG-KA-23	6/11/13	CDH, ASB, DKP

Allotment Name & Number	Pasture
Wagon Johnnie	

Kind and/or Class of Animal	Period of Use
Horse / Cattle / Wildlife	Horse - year-round

Class Interval	Int Mid (M)	Key Species: ELSU/AGCR Dot Count	ELSU/AGCR No. By Class (C)	ELSU/AGCR No. X Midmt. (C)(M)	Key Species: ACHY Dot Count	ACHY No. By Class (C)	ACHY No. X Midpt. (C)(M)
0-5%	2.5	•	1	2.5	••	3	7.5
6-20%	13	•	1	13	••	3	39
21-40%	30	•	1	30	••	3	90
41-60%	50	•	1	50	•	1	50
61-80%	70						
81-94%	88	:.	6	528			
95-100%	97.5						
		Totals	10	623.5	Totals	10	186.5
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$		623.5/10 = 62.3%			186.5/10 = 18.6%		

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary) ACHY - not much use/but limited growth/reduced seed head growth

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

OBSERVER: DKP, ASB, CDH
ALLOTMENT: Wagon Johnnie
PASTURE/USE AREA (IF NAMED):
UPM TRANSECT NAME:

DATE: 6/11/2013
HMA: Little Fish Lake
KMA: KA23 (Wagon Johnnie
UTM: 11S
N 0548472
E 4298620
ASPECT: Flat/NE
ELEVATION: 6824

If Long-Term Study represents answers to certain questions, please refer to study in the answer on this sheet.

1. Animal sign present?
   - Wild horse
   - Cattle
   - Sheep
   - Sage grouse
   - Antelope
   - Rabbit
   - Other

2. How much sign?
   - Infrequent
   - Scattered
   - Frequent

3. How Old?
   - Very old – white, several years
   - Old – months to years
   - Fresh – several months
   - Very fresh – several weeks

Cattle
Horse

Large amount of horse sign – travel corridor
→ Area is largely a Russian Wildrye reseeding.

4. Animals observed, approximate location/distance from utilization transect or key management area.
   Horses 1/2 S of KMA 23 @ 30+ head
   3/4 mile N of KMA 15+ head

5. Can you determine what kind of animals utilized the forage? What is utilization? Was transect done?
   Primarily Horse use - On this years growth
   utilization Russian Wildrye 62.7%
   Indian Ricegrass 18.6%

6. Soil texture (See Soil texture chart):
   Gravely Loam →

7. Signs of soil movement or erosion?
   Slight pedalstaling / Not more than expected in drainage

8. Any microbiotic crusts (i.e. crypotgamic, vesicular, other_____) and where?
   No, just Moss.

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

9. Species List (circle dominant shrubs and grasses)

Grasses	Shrubs	Forbs
Russian Wildrye	Wyoming Sage	
Indian Ricegrass		
Squirrell Tail		

10. What is the vigor of the shrubs, grasses and forbs? Phenological stage?
Moderate to low vigor to all. Associated w/ lack of moisture. Russian Wildrye is producing seed head w/ limited lower growth

11. Is P/J appearing to be encroaching or have the possibility to encroach?
No

12. Interspaces are primarily: bare, rock, gravel, litter, etc. Characterize amounts, size and source.
Bare/rock

13. Invasive and/or noxious weed species present?
NO

14. What studies were done during this visit? Check all that apply.

[ ]	Establish Key Area (key area location form)	[ ]	Nested Frequency
[X]	Utilization – Key forage plant method	[ ]	Line Intercept
[X]	Use Pattern Map	[ ]	Line Point
[ ]	Gap Intercept	[ ]	Apparent Trend
[ ]	Soil Structure/Stability	[ ]	Wildlife _____
[ ]	Riparian_____	[ ]	Other_____

14. What was the purpose for the monitoring (if not obvious from #14 above)?
Drought Monitoring utilization

15. What follow-up actions are needed?
Potential livestock reduction due to overpopulation of horses. See other Monitoring Notes for wagon Salinic

16. Other points worth noting?

DOUGHT MONITORING SUMMARY

11S

Allotment/HMA: Wagon Johnnie | Use Area: KA22 | UTMS N: 0550864 E: 4306109

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☒ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site: 1

Examiner(s): CH, ASB, DKP Date: 6/11/13

Drought Indicators: U.S. Drought Monitor Report: ☒ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☒ Pre-Drought ☒ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☒ Yes ☐ No Rationale: Winterfat growth minimal

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
				Juniper Encroachment (needs treated)

Water ☐ Available ☒ Unavailable Rationale: _____

Signs of Drought Stress ☒ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☒ Reduced shoot & leaf growth ☒ Reduced seed head developement ☒ Induced senescence ☐ Plant death

Rationale: Winterfat very small, less than 1" growth on leaders.

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

Heavy winter use area. Horses stay in winterfat wash areas heavy

Drought Response Action Recommendations: Remove horses to allow recovery, assess in Spring 2014

[1]**Average stubble height**. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization**. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site**. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score**. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Key Species

Study Number	Date	Examiner
KA-22	6/11/13	CJH, ASB, DKP

Allotment Name & Number	Pasture
Vaya Johnnie	

Kind and/or Class of Animal	Period of Use
Horse / Cattle	Winter / Early Spring

Class Interval	Int Mid (M)	Key Species EULA Dot Count	EULA No. By Class (C)	EULA No. X Midmt. (C)(M)	Key Species ACHY Dot Count	ACHY No. By Class (C)	ACHY No. X Midpt. (C)(M)
0-5%	2.5				••	4	10
6-20%	13	•	1	13	••	4	52
21-40%	30				••	2	60
41-60%	50	⊠	8	400			
61-80%	70	•	1	70			
81-94%	88						
95-100%	97.5						
		Totals	10	483	Totals	10	122
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$		483/10 = 48.3%			122/10 = 12.2%		

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

OBSERVER: DP, AB, CH
DATE: 6/11/2013
ALLOTMENT: Wagon Johnnie
HMA: Little Fish Lake
PASTURE/USE AREA (IF NAMED):
KMA: KMA22
UPM TRANSECT NAME:
UTM: 11S
N 0550350
E 4306105
ASPECT: level
ELEVATION: 6872

If Long-Term Study represents answers to certain questions, please refer to study in the answer on this sheet.

1. Animal sign present?
   - Wild horse
   - Cattle
   - Sheep
   - Sage grouse
   - Antelope
   - Rabbit
   - Other

2. How much sign?
   - Infrequent
   - Scattered
   - Frequent

3. How Old?
   - Very old – white, several years
   - Old – months to years
   - Fresh – several months
   - Very fresh – several weeks

Cow
Horse

4. Animals observed, approximate location/distance from utilization transect or key management area.
   Horse 2 miles South of KMA 30+ head.
   Antelope 1/2 mile East of KMA 4 head.

5. Can you determine what kind of animals utilized the forage? What is utilization? Was transect done?
   Cattle + Horse. Utilization → Indian Ricegrass 12.2%
   pronghorn
   Winterfat 46.3%

6. Soil texture (See Soil texture chart):
   Gravely Loam

7. Signs of soil movement or erosion?
   Not more than expected

8. Any microbiotic crusts (i.e. crypotgamic, vesicular, other_____) and where?
   ND

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

9. Species List (circle dominant shrubs and grasses)

Grasses	Shrubs	Forbs
(D) Indian Ricegrass	Wyoming Sage	Globe Mallow
Squirrel Tail	(D) Winter Fat	Annual Mustard sp
Needle + Thread	Rabbit Brush	Unk forb

10. What is the vigor of the shrubs, grasses and forbs? Phenological stage?

All have decreased vigor due to lack of precip.
-overgrazing during winter
↳ long term.

11. Is P/J appearing to be encroaching or have the possibility to encroach?

Area is a transition zone from Sage grassland → P/J forest

12. Interspaces are primarily: bare, rock, gravel, litter, etc. Characterize amounts, size and source.

Rock + Bare.

13. Invasive and/or noxious weed species present?

NO

14. What studies were done during this visit? Check all that apply.

☐	Establish Key Area (key area location form)	☐	Nested Frequency
☒	Utilization – Key forage plant method	☐	Line Intercept
☒	Use Pattern Map	☐	Line Point
☐	Gap Intercept	☐	Apparent Trend
☐	Soil Structure/Stability	☐	Wildlife _____
☐	Riparian_____	☒	Other Drought Monitoring

14. What was the purpose for the monitoring (if not obvious from #14 above)?

15. What follow-up actions are needed?

Late Summer Monitoring

16. Other points worth noting?

DOUGHT MONITORING SUMMARY

Allotment/HMA: Wagon Johnnie / Little Valley Use Area: _____ UTMS N: 115 0553100 E: 4297456

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site: KA-19

Examiner(s): CAH, ASB, DKP (next to riparian) 1/4 mile west. Date: 6/11/13

Drought Indicators: U.S. Drought Monitor Report: ☒ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☒ Pre-Drought ☒ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☒ Yes ☐ No Rationale: Stunted Growth

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)

Water ☒ Available ☐ Unavailable Rationale: 1/4 mile west

Signs of Drought Stress ☒ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☒ Reduced shoot & leaf growth ☒ Reduced seed head developement ☒ Induced senescence (ACHY) ☐ Plant death

Rationale: AGCR - doing well, but small
ACHY - very small, not much growth, 1 seed head found.

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

Drought Response Action Recommendations: _____

[1]**Average stubble height**. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization**. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site**. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score**. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Page ___ of ___

Key Species

Study Number	Date	Examiner
15A-19	6/11/13	CDH, ASB, DKP

Allotment Name & Number	Pasture
Wagon Johnnie	

Kind and/or Class of Animal	Period of Use
Horse / Cattle	

Class Interval	Int Mid (M)	Key Species ACHY Dot Count	ACHY No. By Class (C)	ACHY No. X Midmt. (C)(M)	Key Species AGCR Dot Count	AGCR No. By Class (C)	AGCR No. X Midpt. (C)(M)
0-5%	2.5		5	12.5		3	7.5
6-20%	13		3	39		3	39
21-40%	30		1	30		1	30
41-60%	50					1	50
61-80%	70		1	70		2	140
81-94%	88						
95-100%	97.5						
		Totals	10		Totals	10	
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$			151.5/10 = 15.1			266.5/10 = 26.6	

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)
Horse Trailer prevelant in this area. Key sp. outside of shrub canopy are small + reduced growth/seed head development. Proximity to H20 (7.10 mile) may account for low utilization.

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

OBSERVER: DKP, | DATE: 6/11/2013
ALLOTMENT: Wagon Johnnie | HMA: Little Fish Lake
PASTURE/USE AREA (IF NAMED): | KMA: KA19
UPM TRANSECT NAME: | UTM: 11S N 0553100 E 4297456 | ASPECT: West | ELEVATION: 6668O

If Long-Term Study represents answers to certain questions, please refer to study in the answer on this sheet.

1. Animal sign present?
   - Wild horse
   - Cattle
   - Sheep
   - Sage grouse
   - Antelope
   - Rabbit
   - Other

2. How much sign?
   - Infrequent
   - Scattered
   - Frequent

3. How Old?
   - Very old – white, several years
   - Old – months to years
   - Fresh – several months
   - Very fresh – several weeks

4. Animals observed, approximate location/distance from utilization transect or key management area.
   Cow 1/4 miles West w/in private fenced area

5. Can you determine what kind of animals utilized the forage? What is utilization? Was transect done?
   Primarily horse use. Utilization Indian Ricegrass - 15%
   Crested Wheat - 26%

6. Soil texture (See Soil texture chart):
   Gravely Sand

7. Signs of soil movement or erosion?
   Expected for site

8. Any microbiotic crusts (i.e. crypotgamic, vesicular, other_____) and where?
   None

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

9. Species List (circle dominant shrubs and grasses)

Grasses	Shrubs	Forbs
Indian Ricegrass	Wyoming Sage	Annual Mustard
Crested Wheatgrass	Greasewood	Globe Mallow sp.
	Rabbit Brush	
	Opuntia sp.	

10. What is the vigor of the shrubs, grasses and forbs? Phenological stage?

Shrubs - high/moderate

Grasses/forbs - low → Reduced growth/little reproduction (seed head)

11. Is P/J appearing to be encroaching or have the possibility to encroach?

NO

12. Interspaces are primarily: bare, rock, gravel, litter, etc. Characterize amounts, size and source.

Bare/Rock

13. Invasive and/or noxious weed species present?

NO

14. What studies were done during this visit? Check all that apply.

[ ]	Establish Key Area (key area location form)	[ ]	Nested Frequency
[X]	Utilization – Key forage plant method	[ ]	Line Intercept
[X]	Use Pattern Map	[ ]	Line Point
[ ]	Gap Intercept	[ ]	Apparent Trend
[ ]	Soil Structure/Stability	[ ]	Wildlife _____
[ ]	Riparian_____	[ ]	Other_____

14. What was the purpose for the monitoring (if not obvious from #14 above)?

Drought Monitoring

15. What follow-up actions are needed?

See other KMA for Wagon Johnnie

16. Other points worth noting?

DOUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Valley Wagon Schnaie | Use Area: KMA 1 | UTMS N: _____ E: _____

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site _____

Examiner(s): D P CDH AS13 Date: 6/11/13

Drought Indicators: U.S. Drought Monitor Report: ☒ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☒ Pre-Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☒ Yes ☐ No Rationale: stunted growth

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)

Water ☐ Available ☒ Unavailable Rationale: water far away

Signs of Drought Stress ☒ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☒ Reduced shoot & leaf growth ☒ Reduced seed head developement ☐ Induced senescence ☐ Plant death

Rationale: very little growth on HALA

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

Drought Response Action Recommendations: _____

[1]**Average stubble height**. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization**. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site**. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score**. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Key Species

Study Number	Date	Examiner
KMA 1	6/11/13	ASB COH

Allotment Name & Number	Pasture
Wagon Johnnie	

Kind and/or Class of Animal	Period of Use
livestock/Horse	late winter/early spring - Year round

Class Interval	Int Mid (M)	Key Species: KRLH — Dot Count	No. By Class (C)	No. X Midmt. (C)(M)	Key Species: ACHY — Dot Count	No. By Class (C)	No. X Midpt. (C)(M)
0-5%	2.5					2	5
6-20%	13						
21-40%	30		5	150		2	60
41-60%	50		6	300		3	150
61-80%	70					3	210
81-94%	88						
95-100%	97.5						
		Totals	11	450	Totals	10	425
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$			= 40.9			= 42.5%	

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)

Majority horse use, haven't had rain this summer yet.

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

OBSERVER: DP, AB, CH
DATE: 6/11/2013
ALLOTMENT: Wagon Johnnie
HMA: Little Fish Lake
PASTURE/USE AREA (IF NAMED):
KMA: 1
UPM TRANSECT NAME:
UTM: 11 S
N 0549727
E 4303506
ASPECT: Level
ELEVATION: 6840

If Long-Term Study represents answers to certain questions, please refer to study in the answer on this sheet.

1. Animal sign present?
   - Wild horse
   - Cattle
   - Sheep
   - Sage grouse
   - Antelope
   - Rabbit
   - Other

2. How much sign?
   - Infrequent
   - Scattered
   - Frequent

3. How Old?
   - Very old – white, several years
   - Old – months to years
   - Fresh – several months
   - Very fresh – several weeks

Cow
Horse

4. Animals observed, approximate location/distance from utilization transect or key management area.
   Horse - 1/4 S of KMA 15+ head

5. Can you determine what kind of animals utilized the forage? What is utilization? Was transect done? NO
   Primarily horse + Some seasonal cow
   Winterfat - 40.9%
   Indian Ricegrass - 42.5%

6. Soil texture (See Soil texture chart):
   Gravely loam

7. Signs of soil movement or erosion?

8. Any microbiotic crusts (i.e. crypotgamic, vesicular, other_____) and where?
   NO

GENERAL NOTES -- TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

9. Species List (circle dominant shrubs and grasses)

Grasses	Shrubs	Forbs
Squirrel Tail	Bud Sage	Globemallow
Indian Ricegrass	Winterfat	Annual Mustard
	Wyoming Sage	

10. What is the vigor of the shrubs, grasses and forbs? Phenological stage?

All plant types w/ poor vigor + limited growth/reproduction
- Especially Budsage

11. Is P/J appearing to be encroaching or have the possibility to encroach?

NO

12. Interspaces are primarily: bare, rock, gravel, litter, etc. Characterize amounts, size and source.

Gravel 1/2 - 1 inch

13. Invasive and/or noxious weed species present?

NO

14. What studies were done during this visit? Check all that apply.

- [ ] Establish Key Area (key area location form)
- [X] Utilization – Key forage plant method
- [X] Use Pattern Map
- [ ] Gap Intercept
- [ ] Soil Structure/Stability
- [ ] Riparian_____
- [ ] Nested Frequency
- [ ] Line Intercept
- [ ] Line Point
- [ ] Apparent Trend
- [ ] Wildlife_____
- [X] Other Drought Monitoring

14. What was the purpose for the monitoring (if not obvious from #14 above)?

15. What follow-up actions are needed?

16. Other points worth noting?

Winterfat inside cage = Outside] ▷ extended drought

DOUGHT MONITORING SUMMARY

Allotment/HMA: Wagon Johnnie | Use Area: KA-25 | UTMS N: _____ E: _____

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site _____

Examiner(s): COH, ASB, DKP Date: 6/11/13

Drought Indicators: U.S. Drought Monitor Report: ☒ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☒ Pre-Drought ☒ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☒ Yes ☐ No Rationale: _____

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)

Water ☐ Available ☒ Unavailable Rationale: More than 3 miles

Signs of Drought Stress ☒ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☒ Reduced shoot & leaf growth ☒ Reduced seed head developement ☒ Induced senescence ☐ Plant death

Rationale: Ricegrass - no seed head

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

Drought Response Action Recommendations: _____

[1]**Average stubble height**. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization**. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site**. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score**. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Page ___ of ___

Key Species

Study Number	Date	Examiner
KA-25	6/11/13	COH, ASB, DKP

Allotment Name & Number	Pasture
Wagon Johnnie	

Kind and/or Class of Animal	Period of Use
Horse / Cattle	

Class Interval	Int Mid (M)	Key Species ACHY: Dot Count	No. By Class (C)	No. X Midmt. (C)(M)	Key Species ELEL: Dot Count	No. By Class (C)	No. X Midpt. (C)(M)
0-5%	2.5	▫	8	20	▪	2.5	25
6-20%	13	••	2	26			
21-40%	30						
41-60%	50						
61-80%	70						
81-94%	88						
95-100%	97.5						
		Totals	10	46	Totals	10	25
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$			46/10	= 46%		25/10	= 25%

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fifteen to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)
HECO26 same condition
Lack of Utilization

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

2013

Bureau of Land Management

HMA Drought Monitoring

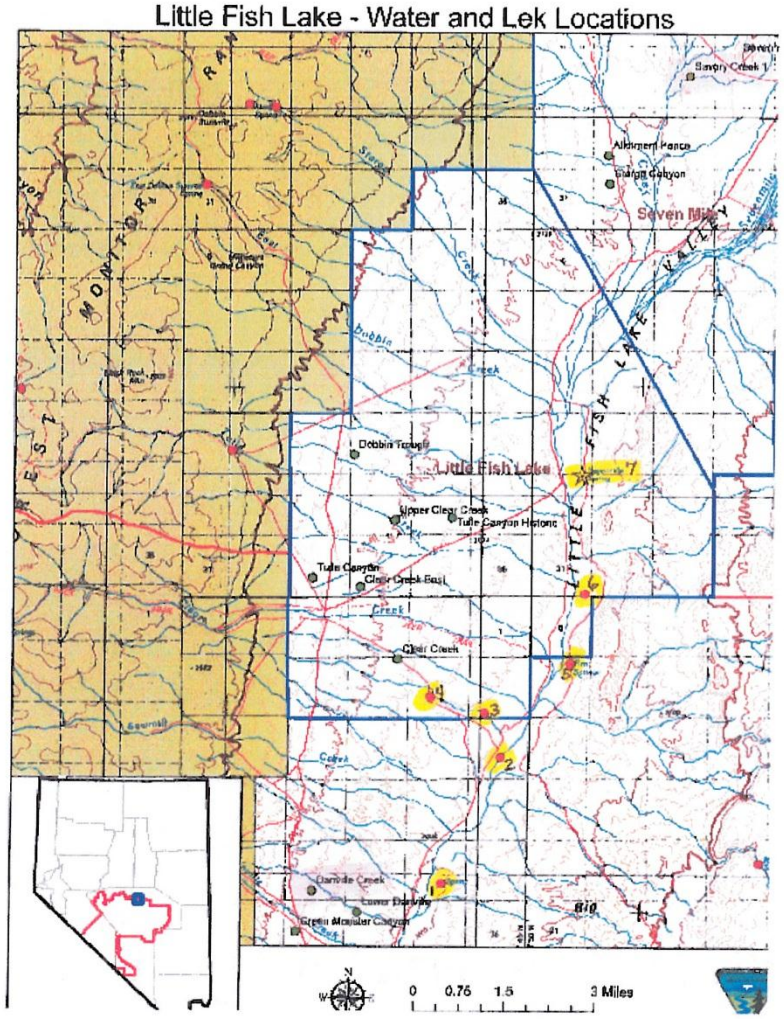
FIELD REPORT FOR APRIL 25, 2013

Visit to Little Fish Lake HMA

Date: 4/25/2013
Location: 7 Springs in Little Fish Lake Valley (see map for numbering) as requested by David Price (including Fish Springs and Sevenmile Spring)
Work performed: Drought Monitoring

Inspected by: *Andersen*

Little Fish Lake HMA



Wild Horse Body Condition

No wild horses were observed near any of the springs. Early in the morning, driving to Savory Creek sagegrouse lek, I observed 2 different bands of horses. Both bands of horses were seen after making the right turn after Clear Creek. The first band consisted of 3 mares, a very young foal, a yearling and a stallion. One of the mares was walking slowly behind the rest – suspect she may have been close to foaling? Stallion was between the group of four that had run on ahead and nervously keeping a close eye on her trailing behind. All horses looked to have a 4 or 5 Henneke body condition score.

The second group of horses were a band of 8 adults seen farther up the valley, on the west side of the road near the Dobbin Creek area. These horses were running fast and although quite a ways from the vehicle, through binoculars looked to have a score of 4 or 5 body condition.

The photo of the single stallion (no other horses seen in his vicinity) was taken after coming back down through Box Canyon and still in the USFS at upper end of North Stone Cabin. He appeared to have a body score of 5.

2 mares, foal, and yearling from first band of horses encountered

Stallion keeping close watch between mares and foal and yearling in front and the lagging mare shown below

Mare lagging behind the main group (walking while all the other were running)

Stallion in North Stone Cabin

Vegetation Condition

Riparian areas consisted of salt grass, sedges and other riparian, salt-tolerant grasses. Upland areas transitioned to mostly sagebrush, rabbitbrush and greasewood. Springs #3 and #4 are in pinyon/juniper transition zone. Indian Ricegrass near Spring #3 and #4 did not appear to have much use on it this spring. Indian Ricegrass near Spring #6 had been heavily grazed.

Drought Related Concerns

At this point in time, there seems to be a lot of water in Little Fish Lake Valley accessible to wild horses. I do believe that we should continue to monitor the west side of Spring #6 as the summer progresses and if we do not get spring and summer rains. Most of the water is on the east side of the fence and I don't believe it to be accessible to the horses out in the valley.

Spring #1

Recommend - NOT critical - see below * (fenced)

DOUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Lake | Use Area: LFLV #1 | UTMS: 548852 E x 4289874 N

Vegetation Community: [X] Salt Desert Shrub [ ] Mountain Shrub [X] Riparian Zone [ ] Monotypic Invasive Animal [ ] Sagebrush Grassland [ ] Pinyon-Juniper Woodland [ ] Mojave Desert

Ecological Site: _____

Examiner(s): Terri Anderson

Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report: [ ] Moderate [ ] Severe [ ] Extreme [ ] Exceptional Release Date: _____

Veg DRI Report [ ] Normal [ ] Pre-Drought [ ] Moderate [ ] Severe [ ] Extreme Release Date: _____

Drought Indicators verified: [ ] Yes [ ] No Rationale: _____

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as erosion, animal stress, hazardous fuels etc.)
				Riparian area ~ 1/2 mi. from rd. I was on. I was running out of time so surveyed with spotting scope. Saw half a dozen white-faced ibis, so expect there to be standing H_2O where dark green stripe appears in photo.

Water [X] Available [ ] Unavailable Rationale: _____

Signs of Drought Stress [ ] Present * [ ] Not Present * If present, check what signs of drought stress were observed

[ ] Reduced shoot & leaf growth [ ] Reduced seed head development [ ] Induced senescence [ ] Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

* Riparian area appears to be fenced on both east & west sides. There was scattered horse sign along the road (outside western fenceline) but did not see any sign inside the fence

Drought Response Action Recommendations: _____

[1]Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements, BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements, BLM Technical Reference (1996).

[3]Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local committees, and referencing the Ecological Site Description correlated to the location.

[4]Production score. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production is at maximum potential)

Spring #1 – photo taken from road showing riparian area

Spring #1 – Photo shows fence foreground and background

Spring #2

Recommend NOT critical - private (fenced)

DOUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Lake Use Area: LFLV #2 UTMS #: 550502 E 4293338 N

Vegetation Community: ☒ Salt Desert Shrub ☐ Mountain Shrub ☒ Riparian Zone ☐ Monotypic Invasive Annual
☐ Sagebrush Grassland ☐ Pinyon Juniper Woodland ☐ Mojave Desert

Examiner(s): Terri L Anderson Ecological Site: _____ Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____
VegDRI Report: ☐ Normal ☐ Pre-Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☐ Yes ☐ No Rationale: _____

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)

Water ☒ Available ☐ Unavailable Rationale: _____

Signs of Drought Stress ☐ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head development ☐ Advanced senescence ☐ Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

no sign of wild horses (I believe they are fenced out)
old cattle sign - near H2O source
some fresh sign along the road (outside of fence)

Drought Response Action Recommendations: _____

[1] Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference [1996]. stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2] Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3] Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4] Production score. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production is at maximum potential)

Spring #2 – Road outside of fence has some horse sign – No horse sign on east side of fence near the riparian area seen below:

Spring #3

Recommend: NOT critical – did not appear to have standing H2O found this area is ~ 3/4 mi. below #4 and farther from road. Would just add #4 to critical H2O source list

DROUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Lake Use Area: LFLV #3 UTMs: E 549471 N 4294485

Vegetation Community: [X] Salt Desert Shrub [ ] Mountain Shrub [X] Riparian/Mesic [ ] Montypic Invasive Annual [ ] Sagebrush Grassland [X] Pinyon-Juniper Woodland [ ] Mojave Desert Ecological Site:

Examiner(s): Date:

Drought Indicators: U.S. Drought Monitor Report: [ ] Moderate [ ] Severe [ ] Extreme [ ] Exceptional Release Date:

VegDRI Report: [ ] Normal [ ] Pre-Drought [ ] Moderate [ ] Severe [ ] Extreme Release Date:

Drought Indicators verified: [ ] Yes [ ] No Rationale:

Drought Response Triggers:

Forage:

Average Stubble Height[1] (Inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
				riparian in the area did not appear to have been grazed avg ht. ~ 4"

Water [ ] Available [X] Unavailable Rationale: does not appear to have standing H2O (photographed from rd.)

Signs of Drought Stress [ ] Present* [ ] Not Present *If present, check what signs of drought stress were observed

[ ] Reduced shoot & leaf growth [ ] Reduced seed head development [ ] Indicator senescence [ ] Plant death

Rationale:

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations.

surveyed riparian area from rd. (had just been to #4 ~ 3/4 mi. above this area & was running out of time) some horse sign in area (zoomed in pic from the road)

Drought Response Action Recommendations:

[1]Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local users, and referencing the Ecological Site Description correlated to the location.

[4]Production score. 1. Extreme Drought (no growth this year); 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production at maximum potential)

Spring #3 - Photo taken from road – did not appear to be standing water

Spring #3 – Photo of horse sign near upper end of riparian area

Spring #4

Recommend adding to Critical H2O Source list

DOUGHT MONITORING SUMMARY

Allotment/HMA: Battle Fish Lake Use Area: LFLV #4 UTMS: 548614 E x 4294893 N

Vegetation Community: X Salt Desert Shrub ☐ Mountain Shrub X Riparian Zone (Salt) ☐ Mountypic Invasive Annual
☐ Sagebrush Grassland X Pinyon-Juniper Woodland (Salt grass + another halt tolerant grass) ☐ Mojave Desert

Ecological Site:

Examiner(s): JAnderson Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date:

VegDRI Report: ☐ Normal ☐ Pre-Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date:

Drought Indicators verified: ☐ Yes ☐ No Rationale:

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (include any other observations such as erosion, animal stress, hazardous fuels etc.)

Water X Available ☐ Unavailable Rationale: lg. pool + riparian area - old wood structure with missing pipe - underwater when pool

Signs of Drought Stress ☐ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head development ☐ Early/red senescence ☐ Plant death

Rationale:

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

scattered - old - horse sign - no fresh tracks
old cow sign
does not appear that horses are currently using the spring

Drought Response Action Recommendations:

[1]Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements, BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements, BLM Technical Reference (1996).

[3]Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]Production scores. 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above Average Production 5. Extremely Wet Year (production is at maximum potential)

Spring #4 Riparian area with piped water source (close-up below) shown in lower right quadrant of above photo.

Spring #5 – Fish Springs

Recommend: NO! adding to Critical – believe horses are fenced out –

DOUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Lake Use Area: LFLV#5 Fish Springs UTM S#: 552146 E x 4295636 N

Vegetation Community: [X] Salt Desert Shrub [ ] Mountain Shrub upland crabbed/sagebrush [X] Riparian Zone [ ] Monotypic Invasive Annual [ ] Sagebrush Grassland [ ] Pinyon Juniper Woodland [ ] Mojave Desert

Ecological Site:

Examiner(s): Terri Anderson Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report: [ ] Moderate [ ] Severe [ ] Extreme [ ] Exceptional Release Date:

VegDRI Report: [ ] Normal [ ] Pre Drought [ ] Moderate [ ] Severe [ ] Extreme Release Date:

Drought Indicators verified: [ ] Yes [ ] No Rationale

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)

Water [X] Available [ ] Unavailable Rationale: a lot of H_2O along this stretch of riparian area – a lot of waterfowl

Signs of Drought Stress [ ] Present * [ ] Not Present * If present, check what signs of drought stress were observed

[ ] Reduced shoot & leaf growth [ ] Reduced seed head development [ ] Reduced senescence [ ] Plant death

Rationale:

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

historic cow sign – NO horse sign at all on the road after going thru gate just So. of Spring #6. No sign of horses around the H_2O

Drought Response Action Recommendations:

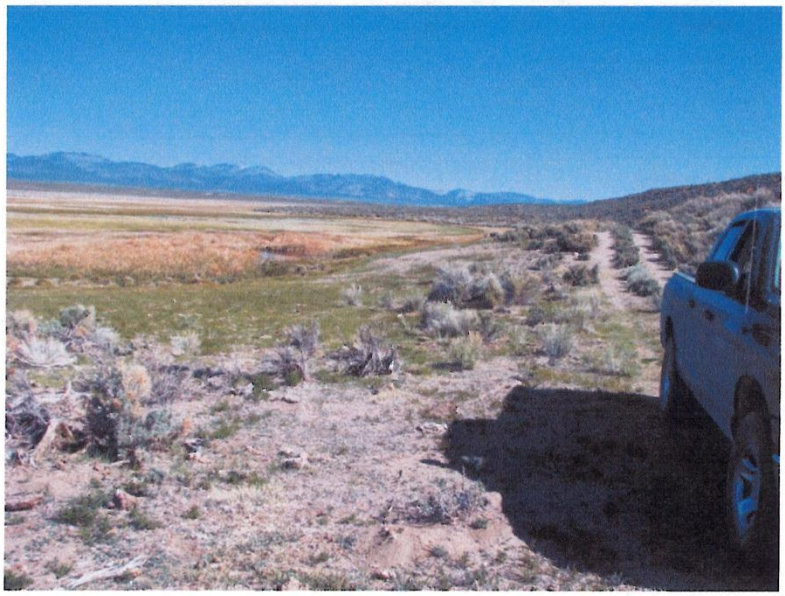
[1] Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2] Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3] Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4] Production score: 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production is at maximum potential)

Photos of Fish Springs: A lot of water. No sign of horses. Fenced out?



Spring #6

Recommend. Add to Critical H_2O area for horses *

DOUGHT MONITORING SUMMARY

Allotment/HMA: Little Fish Lake Use Area: LFLV #6 UTMS #532843 E x 4297571 N

Vegetation Community: ☒ Salt Desert Shrub (hillside) ☐ Mountain Shrub ☒ Riparian Zone (salt grass / sedge) ☐ Monotypic Invasive Annual ☐ Sagebrush Grassland ☐ Pinyon Juniper Woodland ☐ Mojave Desert

Ecological Site: _____

Examiner(s): _____ Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☐ Pre Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☐ Yes ☐ No Rationale: _____

Drought Response Triggers: → heavy salt deposits sagebrush rabbitbrush sedgrass greasewood

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels, etc.)
1"				ricegrass (what little there was in the area) had been grazed

Water ☒ Available ☐ Unavailable Rationale: _____

Signs of Drought Stress ☐ Present* ☐ Not Present *If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head development ☐ Induced senescence ☐ Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

a lot of fresh horse sign - trailing abundant off of hill to the East some cow sign (older)

drove to East side of this H_2O - large pool

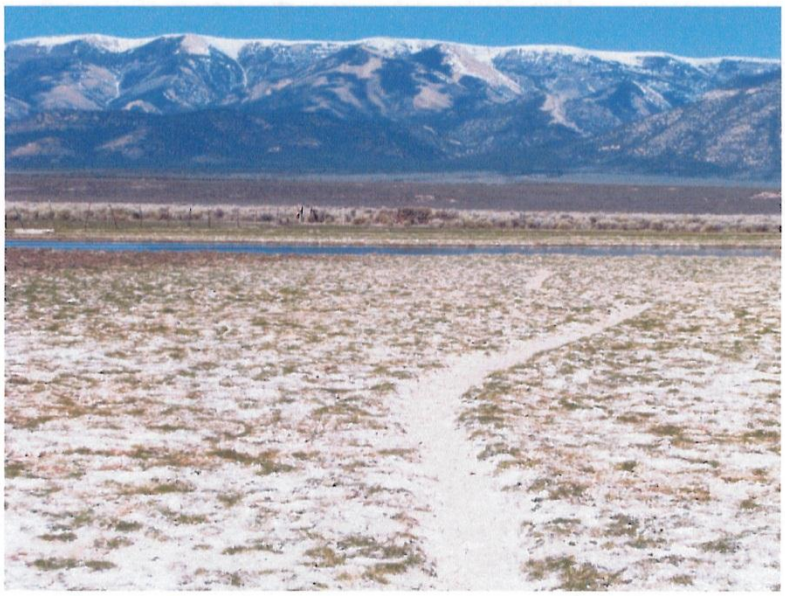
Drought Response Action Recommendations: * also pics from West side where riparian area extends under fence. Horses visiting this H_2O source from both the east & the west (divided by fence)

[1]Average Stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]Production score: 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production is at maximum potential)



Photos showing heavy trailing to water source and hoof prints

Photo showing heavy trailing from valley into Spring #6 from the west and large stud pile

Photo shows fence that divides water source at Spring #6 – LOTS of water on East side of fence.

DROUGHT MONITORING SUMMARY

Allotment/HMA: Battle Mtn Lake Use Area: LFLV #7 Stonewall Spring UTMS: E 552560 N 4300657

Vegetation Community: ☒ Salt Desert Shrub Upland ☐ Mountain Shrub ☒ Riparian Zone ☐ Monotypic Invasive Annual ☐ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert

Ecological Site: _____

Examiner(s): Lori Anderson Date: 4/24/13

Drought Indicators: U.S. Drought Monitor Report ☐ Moderate ☐ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☐ Pre-Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☐ Yes ☐ No Rationale: _____

Drought Response Triggers:

Forage

Average Stubble Height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (include any other observations such as: erosion, animal stress, hazardous fuels etc.)
				salt grass/other riparian grasses/sedges upland: sagebrush, greasewood, Lahontan thistle

Water ☒ Available ☐ Unavailable Rationale: _____

Signs of Drought Stress ☐ Present * ☐ Not Present * if present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head development ☐ Induced senescence ☐ Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

LOT of current & previous use by horses
Many stock piles along road
" beef grant (Commodity)

Drought Response Action Recommendations: _____

[1]Average stubble height. Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]Average utilization. Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]Normal production expected for site. Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgement, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]Production score. 1. Extreme Struggle (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Extremely Wet Year (production at maximum potential)

Sevenmile Spring showing heavy hoof action from horses

Stud pile at Sevenmile Spring

DOUGHT MONITORING SUMMARY

Allotment/HMA: KA-23 | Use Area: WAGON JOANIE | UTMS N: 4298632 E: 548466

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site

Examiner(s): COH Date: 6/19/2014

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☒ Severe ☐ Extreme ☐ Exceptional Release Date:

VegDRI Report: ☐ Normal ☒ Pre-Drought ☒ Moderate ☐ Severe ☐ Extreme Release Date:

Drought Indicators verified: ☐ Yes ☒ No Rationale: Seedheads on AGCR

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
	25%		2.5	

Water ☒ Available ☐ Unavailable Rationale: Near Clear Creek and Seven Mile Wash Area

Signs of Drought Stress ☐ Present * ☒ Not Present * If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head developement ☐ Induced senescence ☐ Plant death

Rationale:

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

400% over AML for Horses. No Cattle Use.

Drought Response Action Recommendations: Gather Horses, Facilitate Riparian Health on areas NOT FUNCTIONING.

[1]**Average stubble height.** Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization.** Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site.** Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score.** 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

DOUGHT MONITORING SUMMARY

Allotment/HMA: Stone Cabin | Use Area: Middle Valley N. | UTMS N: 4226636 E: 539161

Vegetation Community: [X] Salt Desert Shrub [ ] Mountain Shrub [ ] Riparian Zone [ ] Monotypic Invasive Annual [ ] Sagebrush Grassland [ ] Pinyon-Juniper Woodland [ ] Mojave Desert Ecological Site:

Examiner(s): CAH Date: 6/24/14

Drought Indicators: U.S. Drought Monitor Report: [ ] Moderate [X] Severe [ ] Extreme [ ] Exceptional Release Date:

VegDRI Report: [ ] Normal [ ] Pre-Drought [ ] Moderate [ ] Severe [ ] Extreme Release Date:

Drought Indicators verified: [ ] Yes [X] No Rationale: Everything has seedheads.

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
	30%		2.5	

Water [X] Available [ ] Unavailable Rationale: 2.5 miles

Signs of Drought Stress [ ] Present * [ ] Not Present * If present, check what signs of drought stress were observed

[ ] Reduced shoot & leaf growth [ ] Reduced seedhead developement [ ] Induced senescence [ ] Plant death

Rationale:

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

Keep horses at AML, currently a little over.

Drought Response Action Recommendations: Add water locations to rest the bottom of the valley. Need wells on Bench's.

[1]**Average stubble height.** Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization.** Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site.** Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score.** 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

R

DOUGHT MONITORING SUMMARY

Allotment/HMA: WAGON JOHNNIE | Use Area: RA-22 | UTMS N: 4305374 E: 551998

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual
☐ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert Ecological Site: Winterfat bottom

Examiner(s): CJH Date: 6/19/14

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☒ Severe ☐ Extreme ☐ Exceptional Release Date: _____

VegDRI Report: ☐ Normal ☐ Pre Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date: _____

Drought Indicators verified: ☐ Yes ☒ No Rationale: Normal Growth.

Drought Response Triggers:

Forage

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
	55%		2.5	All Horse Use, degrading the site

Water ☒ Available ☐ Unavailable Rationale: .5 mile

Signs of Drought Stress ☐ Present * ☐ Not Present * If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head developement ☐ Induced senescence ☐ Plant death

Rationale: _____

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

400% AML. No Livestock 2-3yrs.

Drought Response Action Recommendations: Remove Horses, Help repair damage caused by horses. Especially riparian areas.

[1]**Average stubble height.** Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization.** Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site.** Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score.** 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year production is at maximum potential)

Page ____ of ____

Key Species

Study Number	Date	Examiner
KA-23	6/19/14	CDH

Allotment Name & Number	Pasture
WAGON JOHNNIE	Seeding

Kind and/or Class of Animal	Period of Use
HORSE	24/7

Class Interval	Int Mid (M)	Key Species AGCR Dot Count	No. By Class (C)	No. X Midmt. (C)(M)	Key Species Dot Count	No. By Class (C)	No. X Midpt. (C)(M)
0-5%	2.5		3	7.5			
6-20%	13		10	130			
21-40%	30		6	180			
41-60%	50		2	100			
61-80%	70						
81-94%	88						
95-100%	97.5		~~27~~	~~[illegible]~~			
	Totals		21	417.5	Totals		

Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$ 417.5/21 = 19.8% _____ =

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

Illustration 11

GENERAL NOTES – TO BE COMPLETED AT EACH KMA, UPM TRANSECT, ETC.

0.39 photos 172 - 176

OBSERVER: M.W. + V.H.
DATE: 06/23/14
ALLOTMENT:
HMA:
PASTURE/USE AREA (IF NAMED):
KMA:
UPM TRANSECT NAME: Wagon Johnnie Ram Gauge
UTM: N 4286494 E 0545744
ASPECT:
ELEVATION: 9289 ft.

If Long-Term Study represents answers to certain questions, please refer to study in the answer on this sheet.

1. Animal sign present?
   - Wild horse
   - Cattle
   - Sheep
   - Sage grouse
   - Antelope
   - Rabbit X
   - Other

2. How much sign?
   - Infrequent
   - Scattered
   - Frequent X

3. How Old?
   - Very old – white, several years
   - X Old – months to years
   - X Fresh – several months
   - Very fresh – several weeks

No animal signs observed within exclosure other than rabbit poop.

4. Animals observed, approximate location/distance from utilization transect or key management area.
One jackrabbit observed in exclosure.

5. Can you determine what kind of animals utilized the forage? What is utilization? Was transect done?
~~Documentation~~. Little utilization & low production.

6. Soil texture (See Soil texture chart):
Sandy clay loam.

7. Signs of soil movement or erosion?
Water flows patterns present. Due to limited bare ground little/no apparent pedastaling & soil movement.

8. Any microbiotic crusts (i.e. crypotgamic, vesicular, other_____) and where?
No microbiotic crusts observed.

9. Species List (circle dominant shrubs and grasses)

Grasses	Shrubs	Forbs
Needle + thread (HECO 26) ACHY	ARTR 2	

10. What is the vigor of the shrubs, grasses and forbs? Phenological stage?
ARTR has abundant decadent parts. Grasses have limited seedheads + reduced vigor.

11. Is P/J appearing to be encroaching or have the possibility to encroach?
No PJ encroachment observed within enclosure. Encroachment present in the distance on hillsides and area directly surrounding.

12. Interspaces are primarily: bare, rock, gravel, litter, etc. Characterize amounts, size and source.
Small interspaces w/ abundant grasses present.

13. Invasive and/or noxious weed species present?
No invasives observed.

14. What studies were done during this visit? Check all that apply.

- [ ] Establish Key Area (key area location form)
- [ ] Utilization – Key forage plant method
- [ ] Use Pattern Map
- [ ] Gap Intercept
- [ ] Soil Structure/Stability
- [ ] Riparian_____
- [ ] Nested Frequency
- [ ] Line Intercept
- [ ] Line Point
- [ ] Apparent Trend
- [ ] Wildlife_____
- [x] Other Rain gauge

14. What was the purpose for the monitoring (if not obvious from #14 above)?
N/a

15. What follow-up actions are needed?

16. Other points worth noting?

Page ___ of ___

Key Species

Study Number	Date	Examiner
WG. Rain Gauge	4/29/14	CMH

Allotment Name & Number	Pasture
Wagon Johnnie (Forest Service)	Wagon Johnnie

Kind and/or Class of Animal	Period of Use
Some cattle sign old/fresh & some horse sign	

Class Interval	Int Mid (M)	Key Species ACHY: Dot Count	ACHY: No. By Class (C)	ACHY: No. X Midmt. (C)(M)	Key Species AGCR: Dot Count	AGCR: No. By Class (C)	AGCR: No. X Midpt. (C)(M)
0-5%	2.5		1	2.5			
6-20%	13		1	13		2	26
21-40%	30		3	90		3	90
41-60%	50		7	350		8	400
61-80%	70		1	70		1	70
81-94%	88						
95-100%	97.5						
		Totals	13	525	Totals	14	586
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$		525.5/13	= 40.4%		586/14	= 41.8%	

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fifteen to 25 percent of current seedstalks remain intact.

(e) (61-80%). More than half of the available forage on key species appears to have been utilized. Less than 10 percent of the current seedstalks remain. Shoots of rhizomatous grasses are missing.

(f) (81-94%). The key species appear to have been heavily utilized and there are indications of repeated use. There is no evidence of reproduction or current seedstalks.

(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)
Lots of Globemallow, heavy use.

Rain Gauge Data DG
6 full cups = 3 in.
+.39
3.39
- .75
Oct to Apr = 3.14

*Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

DOUGHT MONITORING SUMMARY

Allotment/HMA: Wayne Johnnie | Use Area: KA-23 | UTMS N: 548455 E: 4298686

Vegetation Community: ☐ Salt Desert Shrub ☐ Mountain Shrub ☐ Riparian Zone ☐ Monotypic Invasive Annual ☒ Sagebrush Grassland ☐ Pinyon-Juniper Woodland ☐ Mojave Desert

Examiner(s): CMH, BeH (EAF) | Ecological Site: | Date: 4/1/14

Drought Indicators: U.S. Drought Monitor Report: ☐ Moderate ☒ Severe ☐ Extreme ☐ Exceptional Release Date: 3/11/14

VegDRI Report: ☐ Normal ☐ Pre-Drought ☐ Moderate ☐ Severe ☐ Extreme Release Date:

Drought Indicators verified: ☐ Yes ☒ No Rationale: Soil Moisture 2" deep

Drought Response Triggers:

Forage Pictures 3125-3130

Average Stubble height[1] (inches)	Average Utilization[2]	Normal Production Expected for Site[3]	Production Score[4]	Remarks/Rationale (Include any other observations such as: erosion, animal stress, hazardous fuels etc.)
	50%		3	

Water ☐ Available ☐ Unavailable Rationale:

Signs of Drought Stress ☐ Present * ☒ Not Present * If present, check what signs of drought stress were observed

☐ Reduced shoot & leaf growth ☐ Reduced seed head developement ☐ Induced senescence ☐ Plant death

Rationale: Growing season just starting and doing well besides over utilized

Livestock/Wild Horse and Burro Distribution

Describe the current utilization pattern across the allotment/HMA including the average utilization recorded on the associated Landscape Appearance data forms and any livestock and/or wild horse and burro observations:

20 horses within 1 mile.

- Horse sign prevalent

Drought Response Action Recommendations: Gather Horses, reduce intensity of grazing by hors.

[1]**Average stubble height.** Use the stubble height method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996). Stubble height will only be recorded in areas outlined in the Battle Mountain District Drought Monitoring Plan.

[2]**Average utilization.** Use the key species method and form as outlined in Utilization Studies and Residual Measurements. BLM Technical Reference (1996).

[3]**Normal production expected for site.** Use previously collected quantitative production data for the allotment/HMA. When production data is not available "normal production" will be determined through professional judgment, consultation with local permittees, and referencing the Ecological Site Description correlated to the location.

[4]**Production score.** 1. Extreme Drought (no growth this year) 2. Below Average Production 3. Average Production 4. Above-Average Production 5. Exteremely Wet Year (production is at maximum potential)

Page ___ of ___

Key Species

Study Number	Date	Examiner
KA-73	4/1/14	CDH, Beth

Allotment Name & Number	Pasture
Upper Johnnie	

Kind and/or Class of Animal	Period of Use
Horse	Horse - year-rnd Cattle-non use

Class Interval	Int Mid (M)	Key Species: Bromus Ulthrae — Dot Count	No. By Class (C)	No. X Midmt. (C)(M)	Key Species: ACHY — Dot Count	No. By Class (C)	No. X Midpt. (C)(M)
0-5%	2.5	••	2	5	•	1	2.5
6-20%	13	•	1	13			
21-40%	30				•	1	30
41-60%	50	•••	6	300	••	2	100
61-80%	70	•••	4	280	•	1	70
81-94%	88	••	2	186			
95-100%	97.5	•	1	97.5	••	2	195
		Totals	16	881.5	Totals	7	397.5
Avg. Util. = $\frac{\Sigma(CM)^*}{\Sigma C}$			881/16 = 55.1%			397.5/7 = 56.5%	

(a) (0-5%). The key species show no evidence of grazing use or negligible use.

(b) (6-20%). The key species has the appearance of very light grazing. Plants may be topped or slightly used. Current seedstalks and young plants are little disturbed.

(c) (21-40%). The key species may be topped, skimmed, or grazed in patches. Between 60 and 80 percent of current seedstalks remain intact. Most young plants are undamaged.

(d) (41-60%). Half of the available forage (by weight) on key species appears to have been utilized. Fiftee to 25 percent of current seedstalks remain intact.

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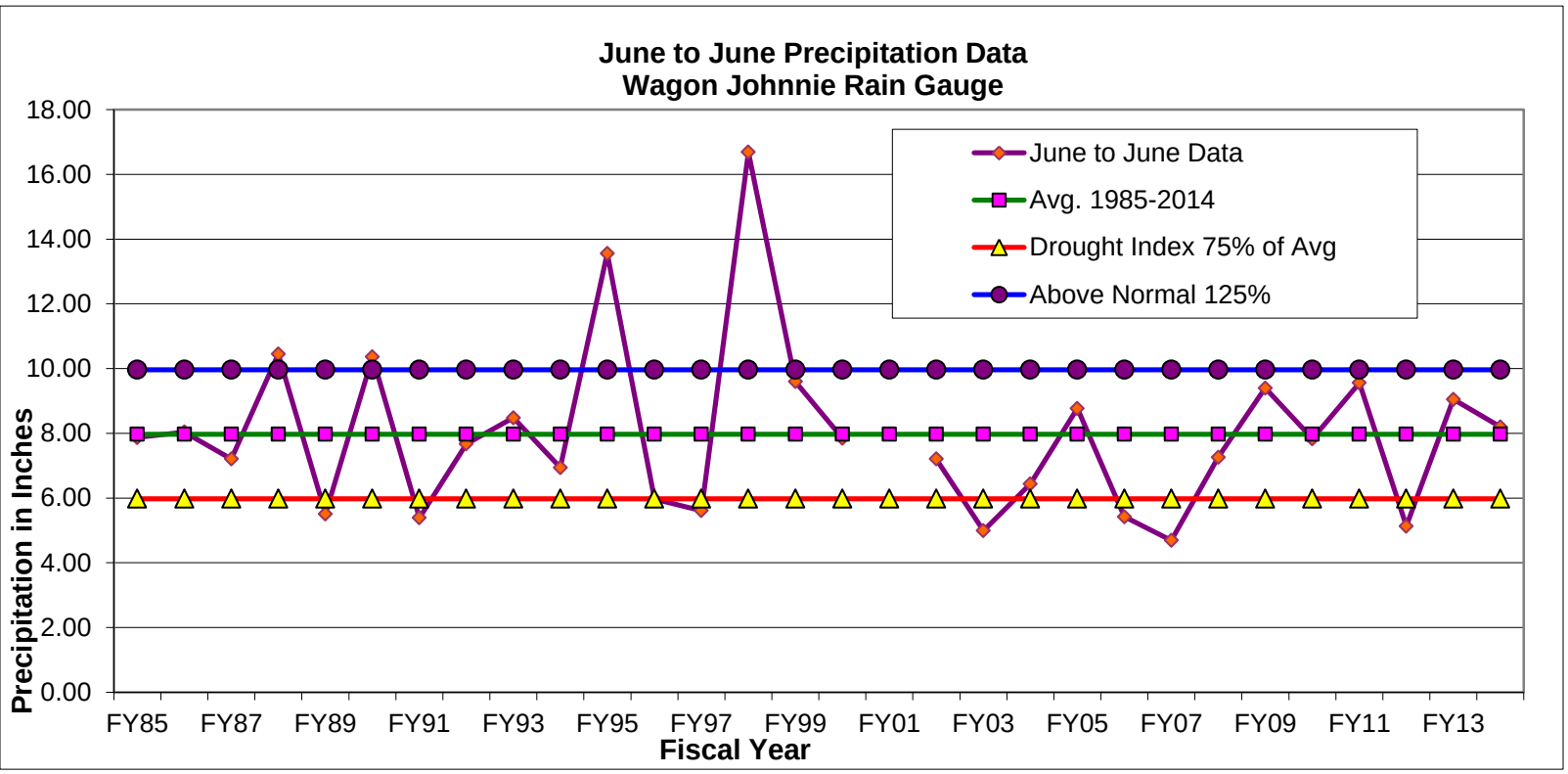
(g) (95-100%). The key species appears to have been completely utilized. The remaining stubble is utilized to the soil surface.

Notes (use other side or another page, if necessary)

- Horse Use

* Where C = The number of observations within each class interval (C column), M = the class interval midpoint (M column), and Σ = the summation symbol.

Precipitation Data 1985-2014



ATTACHMENT 3
INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS

Form 1842-1
(September 2006)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

INFORMATION ON TAKING APPEALS TO THE INTERIOR BOARD OF LAND APPEALS

DO NOT APPEAL UNLESS
1. This decision is adverse to you,
AND
2. You believe it is incorrect

IF YOU APPEAL, THE FOLLOWING PROCEDURES MUST BE FOLLOWED

1. NOTICE OF APPEAL	A person who wishes to appeal to the Interior Board of Land Appeals must file in the office of the officer who made the decision (not the Interior Board of Land Appeals) a notice that he wishes to appeal. A person served with the decision being appealed must transmit the *Notice of Appeal* in time for it to be filed in the office where it is required to be filed within 30 days after the date of service. If a decision is published in the FEDERAL REGISTER, a person not served with the decision must transmit a *Notice of Appeal* in time for it to be filed within 30 days after the date of publication (43 CFR 4.411 and 4.413).
2. WHERE TO FILE NOTICE OF APPEAL	Department of the Interior Bureau of Land Management Tonopah Field Office 1553 S. Main Street P. O. Box Tonopah, NV 89049-0911
WITH COPY TO SOLICITOR	Department of the Interior Regional Solicitor, Pacific Southwest Region 2800 Cottage Way, Room E-2753 Sacramento, CA 95825-1890
3. STATEMENT OF REASONS	Within 30 days after filing the *Notice of Appeal*, file a complete statement of the reasons why you are appealing. This must be filed with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. If you fully stated your reasons for appealing when filing the *Notice of Appeal*, no additional statement is necessary (43 CFR 4.412 and 4.413).
WITH COPY TO SOLICITOR	Department of the Interior Regional Solicitor, Pacific Southwest Region 2800 Cottage Way, Room E-2753 Sacramento, CA 95825-1890
4. ADVERSE PARTIES	Within 15 days after each document is filed, each adverse party named in the decision and the Regional Solicitor or Field Solicitor having jurisdiction over the State in which the appeal arose must be served with a copy of: (a) the *Notice of Appeal*, (b) the Statement of Reasons, and (c) any other documents filed (43 CFR 4.413).
5. PROOF OF SERVICE	Within 15 days after any document is served on an adverse party, file proof of that service with the United States Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals, 801 N. Quincy Street, MS 300-QC, Arlington, Virginia 22203. This may consist of a certified or registered mail "Return Receipt Card" signed by the adverse party (43 CFR 4.401(c)).
6. REQUEST FOR STAY	Except where program-specific regulations place this decision in full force and effect or provide for an automatic stay, the decision becomes effective upon the expiration of the time allowed for filing an appeal unless a petition for a stay is timely filed together with a *Notice of Appeal* (43 CFR 4.21). If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Interior Board of Land Appeals, the petition for a stay must accompany your *Notice of Appeal* (43 CFR 4.21 or 43 CFR 2801.10 or 43 CFR 2881.10). A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the *Notice of Appeal* and Petition for a Stay **must** also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted. **Standards for Obtaining a Stay.** Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards: (1) the relative harm to the parties if the stay is granted or denied, (2) the likelihood of the appellant's success on the merits, (3) the likelihood of immediate and irreparable harm if the stay is not granted, and (4) whether the public interest favors granting the stay.

Unless these procedures are followed, your appeal will be subject to dismissal (43 CFR 4.402). Be certain that all communications are identified by serial number of the case being appealed.

NOTE: A document is not filed until it is actually received in the proper office (43 CFR 4.401(a)). See 43 CFR Part 4, Subpart B for general rules relating to procedures and practice involving appeals.

(Continued on page 2)

43 CFR SUBPART 1821--GENERAL INFORMATION

Sec. 1821.10 Where are BLM offices located? (a) In addition to the Headquarters Office in Washington, D.C. and seven national level support and service centers, BLM operates 12 State Offices each having several subsidiary offices called Field Offices. The addresses of the State Offices can be found in the most recent edition of 43 CFR 1821.10. The State Office geographical areas of jurisdiction are as follows:

STATE OFFICES AND AREAS OF JURISDICTION:

Alaska State Office ---------- Alaska
Arizona State Office --------- Arizona
California State Office ------- California
Colorado State Office -------- Colorado
Eastern States Office --------- Arkansas, Iowa, Louisiana, Minnesota, Missouri and, all States east of the Mississippi River
Idaho State Office ------------ Idaho
Montana State Office --------- Montana, North Dakota and South Dakota
Nevada State Office ---------- Nevada
New Mexico State Office ---- New Mexico, Kansas, Oklahoma and Texas
Oregon State Office ---------- Oregon and Washington
Utah State Office ------------ Utah
Wyoming State Office -------- Wyoming and Nebraska

(b) A list of the names, addresses, and geographical areas of jurisdiction of all Field Offices of the Bureau of Land Management can be obtained at the above addresses or any office of the Bureau of Land Management, including the Washington Office, Bureau of Land Management, 1849 C Street, NW, Washington, DC 20240.