

Amphibians

FWS elevated the status of the Great Basin population of Columbia spotted frog from Candidate 9 to Candidate 3, noting declines in populations (66 FR 1295) ("Conservation Agreement and Strategy: Columbia Spotted Frog, Great Basin Population, Nevada," 2003). Within the planning area drainages occupied by Columbia spotted frog declined from four (Shack, Bear, Timber and Rocky Canyons) to two (Rocky and Timber Canyons; (BLM, ; Motychak & Barrett, 2006). Down-cutting in Shack and Bear Creeks and absence of stable beaver ponds in these drainages are suspected of contributing to Columbia spotted frog declines.

There is no range wide information regarding western toad. In Idaho, western toads are relatively common north of the Snake River; however, populations are believed to be declining south of the Snake River (BLM, ; McDonald & Marsh, 1995). Locally, documented drainages occupied by western toad declined from three (Yahoo Creek, Toana Gulch, and King Hill Canal) to one (King Hill Canal) (BLM). Reduced water flow in Toana Gulch, due to decreased irrigation on private land in the Bell Rapids area, is suspected of contributing to the decline in western toads in that drainage. Another factor may be competition from and predation by non-native bullfrogs (Boone et al., 2007; Hecnar & M'Closky, 1997; Kiesecker & Blaustein, 1998; Kiesecker et al., 2001; Lawler et al., 1999).

Reptiles

BLM attempted to inventory for a number of wildlife species between April and September 2006. During this time BLM documented a single Great Basin black-collared lizard (Figure 22) near the Bruneau Canyon (BLM). No black-collared lizards were found at an area with previously documented observations (BLM). No Sensitive snake species, long-nose snake or Western groundsnake, were encountered or trapped despite inventory efforts in apparently suitable habitat (BLM) within a few miles of documented observations (Beck & Peterson, 1995). This may be due in part to the limited catch effort (1,136 trap nights between June 10 and October 1), the overall rarity of the species, or other factors.

Figure 22. Black-Collared Lizard



Birds

Greater sage-grouse numbers declined range wide (Schroeder et al., 2004). Range vegetation manipulations conducted in the 1960s including herbicides, chaining, plowing, and seeding resulted in a loss of sage-grouse breeding habitat in portions of the planning area. Between 1983 and 2006, sage-grouse leks declined from 152 leks to 39 in the planning area. Only one of nineteen historic sage-grouse leks north of the Clover/Crows Nest/Balanced Rock roads remains. Habitat loss and fragmentation as a result of wildfires reduced the number of active sage-grouse leks north of the Three Creek Highway, but

south of the Clover/Crows Nest/Balanced Rock roads, by 80% to 67 inactive and 16 active leks. In the Browns Bench/Monument Springs area, 10 of 27 leks are active. Only 11%, or 2 of 19, sage-grouse leks south of the Three Creek Highway between House Creek and the West Fork of the Jarbidge River are known to be active. Similarly, ten of twenty leks in the Diamond A area are known to be active based on aerial surveys conducted by IDFG in 2002, 2006, and 2007.

A switch to winter livestock grazing and an increase in animal unit months (AUMs) in the late 1980s and early 1990s coincided with the decline of active sage-grouse leks in a few pastures in the Bruneau Hill and Antelope Springs Allotments; the number of sage-grouse leks were stable in other parts of the planning area during that time. Wildfires throughout the planning area and subsequent habitat conversion to non-native annual and perennial grasslands reduced sage-grouse habitat. Sage-grouse declines in the Diamond A area occurred in the absence of large wildfires and prior to the spread of West Nile virus.

In addition to a decline in the amount of habitat, the number of sage-grouse preferred forbs was lower than expected. Sage-grouse preferred forbs were 1.3% of the vegetation (48 of 3,840 points) in seven sagebrush habitats evaluated in 2006. Sage-grouse preferred forbs (*Erigeron*, *Aster*, *Agoseris*, *Crepis*, *Lomatium*, *Cymopterus*, *Antennaria*, *Gayophytum*, *Astragalus*, *Phlox*, *Lithophragma*, *Orobanche*, etc.) should be 3% or more in xeric uplands and 5% or more in mesic upland habitats (Sather-Blair et al., 2000). Invasive non-native annual forbs (*Ranunculus testiculatus*, *Sisymbrium* sp., *Salsola* sp., *Descurainia* sp, *Halogeton glomeratus*, *Lepidium perfoliatum*, etc.) are present at nearly the same level (1.0%) as sage-grouse preferred forbs (BLM). An increase in invasive non-native annual forbs could reduce the native forb species and lead to an increase in fire frequency.

The Jarbidge Sage Grouse Local Working Group has assisted in implementing several projects on BLM lands to protect wet meadows. They have also successfully secured funding for similar projects with willing cooperators on private lands in the southern portion of the planning area. The group prepared a draft plan which called in part for an activation of a fire guard station at the Juniper Butte Training Range to help reduce fire size, making full suppression a priority in the Wyoming big sagebrush habitats, and establishing priorities for habitat restoration. The Juniper Butte guard station was established in 2005.

Seeding of sagebrush into burned areas has been largely unsuccessful. In a number of sites, sagebrush either failed to germinate or the young plants did not persist into the fourth year. In areas where sagebrush did establish, the restored areas burned in subsequent wildfires. The years when sagebrush established may coincide with snow on recently seeded areas and higher than normal precipitation in the following three years. Years when sagebrush seed did not establish may correspond to drier than normal winters and springs or drought for two to three years following seeding. Planting of both containerized or bare root stock has been successful in smaller areas.

Habitat for Brewer's sparrow, sage sparrow, and loggerhead shrike declined by

approximately 44% since 1982 due to wildfire. These species are found locally in sagebrush steppe habitats with sagebrush cover of at least 10% and shrub heights of at least 20 inches. Wildfires have eliminated the shrub component of the habitat, making the burned areas generally unsuitable for these species. During inventory work from early June to mid July 2006, sage and Brewer's sparrow nests and loggerhead shrikes were noted in areas with suitable Wyoming sagebrush habitat (BLM). These species were not typically encountered in non-native annual or perennial grassland sites (BLM) in part due to a lack of shrub cover and height. Usually, these species nest in the sagebrush canopy from 14 to over 35 inches above the ground. The single exception was a Brewer's sparrow in a patch of sagebrush of less than 2 acres in a crested wheatgrass seeding.

Junipers are encroaching into aspen stands and riparian zones in some areas. Juniper encroachment impedes the production of understory grasses and forbs and overstory plant composition and cover. Aspen stands and cottonwood forests are more suitable nesting habitat for northern goshawks and Lewis woodpeckers compared to Rocky Mountain juniper.

Transplants of Columbia sharp-tailed grouse on private lands in the House Creek area the from 1999 to 2005 have resulted in the establishment of two leks on BLM lands (Smith et al., 2006).

Mammals

Populations of California bighorn sheep experienced range-wide declines since the 1880s (Krausman & Bowyer, 2003). Re-introductions and supplementation efforts since the 1940s resulted in the establishment of viable populations in parts of California, Idaho, Oregon, Washington, Nevada, and South Dakota (Krausman & Bowyer, 2003). California bighorn sheep populations are believed to be stable range wide at approximately 5,000 (Krausman & Bowyer, 2003). Locally, California bighorn sheep numbers peaked in the planning area at 248 in mid 1990s, declined to approximately 50 in 1999, and have steadily increased since (Crenshaw et al., 2006). Poor lamb recruitment as a result of a disease outbreak is the suspected reason for the decline (Crenshaw et al., 2006). Prior to 1983, about 5,800 acres of bighorn habitat were burned in wildfire. From 1983 to 2006, a little more than 6,200 acres burned in wildfires. Non-native annual vegetation now dominates the majority of the approximately 12,000 burned acres. Rehabilitation did not occur in those acres, most of which was within the WSA.

Pygmy rabbits and potential pygmy rabbit burrows were noted during the 2006 inventory in areas categorized as sagebrush steppe and in mountain shrub habitats. No evidence of pygmy rabbits were found in non-native grasslands (either annual or seedings), mountain mahogany, aspen, riparian zones, or canyon lands. No small mammals on the Idaho BLM Sensitive list were trapped during the 2006 field season. Small mammal trapping began in early June at the time the majority of ground squirrels were preparing for summer hibernation. Because a generalized trapping survey for small mammals was completed, focused efforts were not made specifically on ground squirrels. Both Great Basin and Wyoming ground squirrels were observed infrequently in the southern portion of the planning area, although positive identification was not made.

Data provided by the USAF (Rudeen, 2006) indicated kit fox are present in the planning area in the Inside Desert. These kit fox records are over 24 miles from other documented kit fox reports in the planning area. There are no trend data for this species.

Limited bat inventory efforts documented several bat (spotted bat, Townsend big-eared, California myotis) species to be present in several of the major canyons in the planning area. Williams et al. noted more than 50% of bat locations were in riparian zones, accounting for less than 1% of the habitat in their study area in Nevada (Williams et al., 2006).

Forecast

Invertebrates

Bruneau Dunes Tiger beetles are likely to become extirpated at the Windmill Site due to the continued invasion by non-native annuals and trampling impacts from livestock and unrestricted motorized vehicle use. Bruneau Dunes tiger beetle may continue to persist in the more protected setting of Bruneau Dunes State Park; however, non-native annuals are also increasing within the park.

Amphibians

Columbia spotted frogs are restricted to two adjoining drainages in the headwater of the North Fork Salmon Falls Creek. Impacts to riparian vegetation, stream hydraulics, or stream channel stability in either drainage may eliminate this species from the planning area. Known occurrences of western toads are restricted to two areas in a 2-mile reach of the King Hill Canal. Woodhouse's toad and northern leopard frog may be extirpated from the planning area. Columbia spotted frog and western toad are likely to be extirpated from the planning area without habitat improvement and possible re-introductions.

Reptiles

The lack of captures of the longnose snake and western groundsnake in the planning area is not completely unexpected. These secretive species have been documented in Bruneau Dunes State Park and should be present on the adjacent BLM lands. In reptile sampling in other areas of Idaho, rare species (night snakes) may be found only in one year out of three (Peterson, 2006). Great Basin black-collared lizards are present at low levels. In southern Idaho, this species is believed to be naturally less abundant than other large lizards such as leopard lizards or western whiptail. This species is vulnerable to extirpation from the planning area due to small population size in small, scattered habitats.

Birds

If current trends in habitat continue, sage-grouse and other special status sagebrush obligates such as sage sparrow, Brewer's sparrow, and loggerhead shrike will be restricted to approximately 20% or less of their historic range within the planning area due to habitat loss, degradation, and fragmentation. Current habitat is highly fragmented throughout the northern two-thirds of the planning area. Shepard found sage-grouse nesting in fragmented habitats had lower nesting success than sage-grouse nesting in areas with more contiguous sagebrush habitat. The open areas of grassland generally lack

desirable native forbs and are not suitable for wintering or nesting sage-grouse. Native islands in crested wheatgrass seedings will continue to be degraded by invasive non-native annuals (Figure 23) collecting within the native islands (Shepherd III, 2006). The non-native annuals increase fuel load, and their seed competes with the establishment of native plants. Sagebrush islands are likely to be eliminated by wildfire in the future (Knick & Rotenberry, 1997). Humple and Holmes reported that fragmentation of habitat contributed to a 50% reduction in nest success for loggerhead shrikes (Humple & Holmes, 2006).

Figure 23. Degradation of Sagebrush Steppe Island by Non-native Annuals (Tumble Mustard and Tumbleweed).



Mammals

Pygmy rabbit populations are expected to decline if habitat loss and fragmentation continues. Pygmy rabbit populations in isolated island areas are vulnerable to extirpation over time. Hanser and Huntly found specialized small mammals were more likely to be extirpated from islands of habitat compared to generalist small mammals in fragmented islands of sagebrush steppe in Idaho (Hanser & Huntly, 2006). In situations where islands of suitable habitat are separated by 5 or more miles, pygmy rabbit recolonization is unlikely.

California bighorn sheep presently occupy about two-thirds of the available habitat in the Bruneau and Jarbidge River Canyons. Burned areas in the Bruneau-Jarbidge River ACEC are dominated by non-native, invasive annuals. This decreases the quality and availability of forage for bighorn. Areas in the Bruneau-Jarbidge River ACEC have been invaded by cheatgrass following wildfires. Cheatgrass influences the rate of spread, fire size, fire frequency, and time of year when fires burn. The result is more wildfire and more cheatgrass. Canyon portions of the habitat are too steep and rocky to use traditional restoration equipment and methods; however, some areas of the upland plateaus would be suitable for restoration. A hard winter and/or a severe pneumonia outbreak could result in the reduction or extirpation of the bighorn population.

The impact of seeding large areas to non-native perennial grasslands on bats is not known. The majority of bats forage on a variety of nocturnal insects including moths. The reduction of native flowering plants (primarily forbs) through wildfire and rehabilitation may impact the insect prey base on which bats forage (Williams et al., 2006).

Key Features

The extent of habitat loss and fragmentation is a major concern for the continued existence of the special status species within the planning area. Restoration of sagebrush steppe habitat is critical for a number of special status species including greater sage-grouse, pygmy rabbit, ferruginous

hawk, mountain quail, Brewer's sparrow, loggerhead shrike, and Columbian sharp-tailed grouse. Riparian habitat and stream channel restoration will benefit a variety of special status species including the yellow-billed cuckoo, sage-grouse, mountain quail, western toad, northern leopard frog, and Columbia spotted frog. Developing methods to delay the spread of invasive annuals and reduce the impact of wildfire on remaining native plant communities and restoration areas will be important. In absence of a large-scale restoration effort, sagebrush-obligate species could be restricted to 30% or less of their historic range.

Given the wide-scale loss of sagebrush steppe habitat in the planning area, management of remaining contiguous blocks and islands will continue to be important. Developing management strategies to balance the needs of sagebrush steppe-obligate wildlife with other uses such as livestock grazing, motorized vehicles, noxious and invasive plant management, and fire management will be essential. Restoration of poor condition sagebrush steppe and non-native grasslands to connect islands with larger contiguous blocks of native vegetation will also benefit a variety of special status species. Restoration should include planting native grasses (Sandberg bluegrass, Thurber needlegrass, bluebunch wheatgrass), forbs (phlox, hawksbeard, globemallow, balsamroot, etc.), and big sagebrush to improve native plant diversity and reduce the amount of bare ground by restoring and protecting biological soil crusts (Wisdom et al., 2000). A diverse community of native plants including forbs is also more effective in reducing the spread or reinvasion of invasive plants (Pokorny et al., 2005; Sheley & Half, 2006).

Transplanting Sensitive species into areas with suitable unoccupied habitat proved effective for Columbian sharp-tailed grouse (Smith et al., 2006) and California bighorn sheep (Crenshaw et al., 2006). Transplanting to areas of suitable habitat could benefit a number of Sensitive species including Columbia spotted frog, western toad, northern leopard frog, mountain quail, and Columbian sharp-tailed grouse. Transplants should be consistent with state wildlife agency goals and be conducted only after habitats are carefully evaluated and/or restoration has been successful.

Current Management

The 1987 Jarbidge RMP provided for the aquatic habitat of Sensitive and Candidate species in the Snake River below Lower Salmon Falls Dam. Bald eagles were listed as Endangered at the time the 1987 Jarbidge RMP was prepared; however, this species was removed from the Endangered species list in July 2007 (72 FR 37346). Yellow-billed cuckoo is presently a Candidate species and occurs in MUA 4. A number of invertebrates and white sturgeon are still Sensitive species and present in the area. Fences in the Saylor Creek/North Three Island, Three Island, and River Bridge Allotments restrict livestock access to the Snake River. The fences were constructed in 2001 and 2002 and protect about 2 miles of Federally listed snail habitat. About 4 miles of the Sandpoint Riparian Fence in 1999 in the Lower Saylor Creek allotment created a riparian pasture which limits livestock grazing on approximately 4 miles of Snake River. A biological opinion closed a portion of the Hagerman Allotment in MUA 4 to livestock grazing. This protects about 8 miles of Snake River.

The 1987 Jarbidge RMP prohibited any actions that would adversely affect the habitat of Sensitive, Candidate, or Endangered species in that area. Priority for habitat management in the 1987 Jarbidge RMP was given to habitat for listed and Candidate Threatened, Endangered, and

Sensitive species. One wetland was fenced to benefit spotted frogs. No actions have been taken to benefit the remaining Sensitive species or their habitat. In some instances, sagebrush was seeded following wildfire; however, in many cases success has been limited. The Jarbidge Sage Grouse Local Working Group obtained funding for constructing about a dozen exclosures around wetlands on both Federal and private lands.

Big game habitat was to be managed to support 364 bighorn sheep; however, the AUMs allocated for bighorn sheep were inadequate to meet population objectives. IDFG changed the existing population of bighorn by transplanting 21 bighorns in 1993. Later discussions with IDFG determined more bighorn would not be introduced into the area due to the proximity of domestic sheep. The 1987 Jarbidge RMP specified special designation and management as tools to protect existing and potential bighorn sheep habitat. The Bruneau-Jarbidge ACEC was created in 1987. No projects have been implemented to improve bighorn sheep habitat in MUA 16.

Sage-grouse nesting habitat was to be improved through restoration. There has been a net loss of 800,000 acres of sage-grouse habitat since 1982, primarily due to wildfire and subsequent rehabilitation. Much of the remaining sagebrush steppe habitat is highly fragmented. In some areas the habitat contains late seral grasses but other sites have few native forbs and large, native bunchgrasses. A few projects were implemented that specifically targeted improving sage-grouse nesting habitat, including fencing two wetlands in MUA 2 and three wetlands in MUA 15. A wetland in MUA 13 was fenced in cooperation with the local sage-grouse working group. Livestock watering at playas has impacted the adjacent uplands due to trailing. Winter livestock use leaves less residual herbaceous nesting cover for sage-grouse adjacent to the playas, particularly where the understory is dominated by Sandberg bluegrass.

Since the 1987 Jarbidge RMP, national guidance for sage-grouse habitat as well as a state sage-grouse plan was written, and the Jarbidge Sage Grouse Local Working Group plan was drafted. The local work group plan divided the planning area into six areas. The plan recommends restoration of habitat to connect islands of fragmented habitat, restoration and protection of seeps, wetlands and wet meadows for late brood rearing habitat, as well as setting a higher priority for fire suppression in areas with Wyoming big sagebrush in five of the areas.

Management Opportunities

The 1987 Jarbidge RMP had few objectives and limited management guidelines for a variety of Sensitive species or their habitat. The following could be considered for components of a desired outcome for maintaining special status species and their habitats in the revised RMP:

- Stable or increasing populations of special status species to meet or exceed the level of the early 1990s.
- Stable or increasing quantity and quality of habitats for special status species. Habitat loss, degradation, and fragmentation are decreasing over time.
- Stable or increasing net acreages of aspen and mountain mahogany stands. Aspen stands contain a variety of young, mature, and dead trees to meet wildlife needs. The understory vegetation in these woodlands maintains a diversity of native grasses, forbs and shrubs through the fall. The encroachment of junipers and other conifers should not suppress the production of aspen or mountain mahogany or the understory.
- Riparian areas provide adequate vegetation given stream type and potential in order to

dissipate energy and meet a variety of wildlife and special status species needs.

- Herbaceous understories in wetlands/riparian zones contain a variety of late-seral native forbs, grasses, and grass-like species and remain functional to meet wildlife needs. Late-seral species (wooly sedge, Nebraska sedge, beaked sedge, and others) are not decreasing. Species such as Kentucky bluegrass, Baltic rush are not increasing and are in amounts appropriate for the site. Exotic annuals, non-native perennials (reed, reed canarygrass, tamarisk, etc.), noxious weeds, Russian olive, and upland vegetation are absent to rare in the floodplain and are not increasing.
- Adequate residual herbaceous cover remains to provide for suitable wintering, breeding, and nesting birds; mammals; and other special status species.
- Uses do not disrupt special status species during critical periods like breeding, nesting, and wintering.
- Range infrastructure does not contribute to habitat loss, fragmentation, or degradation.
- Sagebrush and other shrub cover as well as desirable perennial forbs (as site conditions dictate) occur on the landscape in a mix of seral stages and sagebrush cover densities to meet the needs of shrub steppe wildlife.

Shrubs could be restored to areas near farmland to improve habitat for upland game. As appropriate BLM should consider the recommendations contained in the Jarbidge Sage Grouse Local Working Group plan and the Conservation Plan for Greater Sage-grouse in Idaho to aid in securing funding for habitat restoration, protection and conservation. Altered sage-grouse habitat could be restored in the southern half of the planning area. Restoration may include planting sagebrush, native grasses, and a variety of forbs.

The big game AUM allocations in the 1987 RMP do not allow for the present numbers of big game in the planning area. These allocations could be adjusted to reflect big game population numbers and objectives. Range infrastructures including troughs, corrals, and holding pastures could be removed from the Bruneau-Jarbidge ACEC and impacted areas could be restored. Areas impacted by wildfire and other factors could also be restored. Restoration on big game winter range could be conducted in cooperation with IDFG and NDOW and may include planting native grasses, winterfat, low or black sagebrush, and forbs, depending on site potential. Specific roads and trails encroaching in the ACEC could be closed and restored to native vegetation. Routes within the ACEC could be formally designated and signed. Junipers could be treated through thinning where they have encroached to create travel corridors for bighorn sheep.

2.B.19. Wild Horses

Profile

Figure 24. Wild Horses



According to local history, the foundations of the Saylor Creek Horse Herd date back to the early 1960s when mares were captured near Challis, Idaho, and transported to an area south of Glenns Ferry, Idaho. Small bands of horses could be found in the vicinity of Dove Springs and the Saylor Creek seep. A registered stud was purchased and turned out with the mares, and colts

were captured in annual roundups. This practice ended when the Saylor Creek Herd was established in accordance with the Wild and Free-Roaming Horse and Burros Act of 1971.

Indicators

The primary resource indicators within the HA used to judge effectiveness of management of the wild horse herd are the sustainability of the rangeland resources and herd health.

Rangeland Resource

The integrity of soils, hydrologic, and biotic functions are the critical elements necessary to maintain a sustainable environment. A healthy environment will provide the forage, water, and security necessary to support a viable, healthy wild horse herd in a thriving ecological balance with the rangelands in the HA.

Technical Reference 1743-6, *Interpreting Indicators of Rangeland Health*, is a qualitative assessment that provides information to “the degree to which the integrity of the soil, vegetation, water, and air, as well as the ecological processes of the rangeland ecosystem are balanced and sustained” (Pellant et al., 2000). The use of this qualitative assessment, combined with more quantitative monitoring such as utilization and trend, allows for the evaluation of site protection indicators of soils, hydrology, and biotic integrity in their ability to protect the sustainability of the resource.

Herd Health

BLM regulations and policy state wild horses (Figure 24) shall be managed as viable, self-sustaining populations of healthy animals in balance with other multiple uses and the productive capacity of their habitat (CFR 4700.0-6). A healthy and viable wild horse population will survive and be successful within the HA during years when the habitat is limited by severe winter conditions, drought, or other uncontrollable and unforeseeable environmental influences. Disease, in particular West Nile Virus, is another indicator of herd health.

Population viability may become a concern when population numbers fall below 100 adult (breeding-age) animals, or when the adult breeding population is less than 50 reproductive pairs of animals in any given year. Over several generations, small herd size

may result in reduced genetic diversity and increase the possibility inbreeding characteristics will occur, reducing herd health or survivability (Coates-Markle, 2000).

Populations should be managed and evaluated to assure that the loss of genetic material will not impair fitness and to preserve and enhance physical and biological characteristics that are of historical significance to the horse herd.

Current Condition

One unique feature of the Saylor Creek HA, as compared to other HAs in western States, is the insufficient occurrence of natural water to support the wild horse numbers identified as the Appropriate Management Level (AML) in the 1987 RMP or the current population. Two small, relatively unproductive seeps occur in the Dove Springs and Sailor Creek drainages. Water developments have been installed over the years to both facilitate management of livestock and supplement the horse herd.

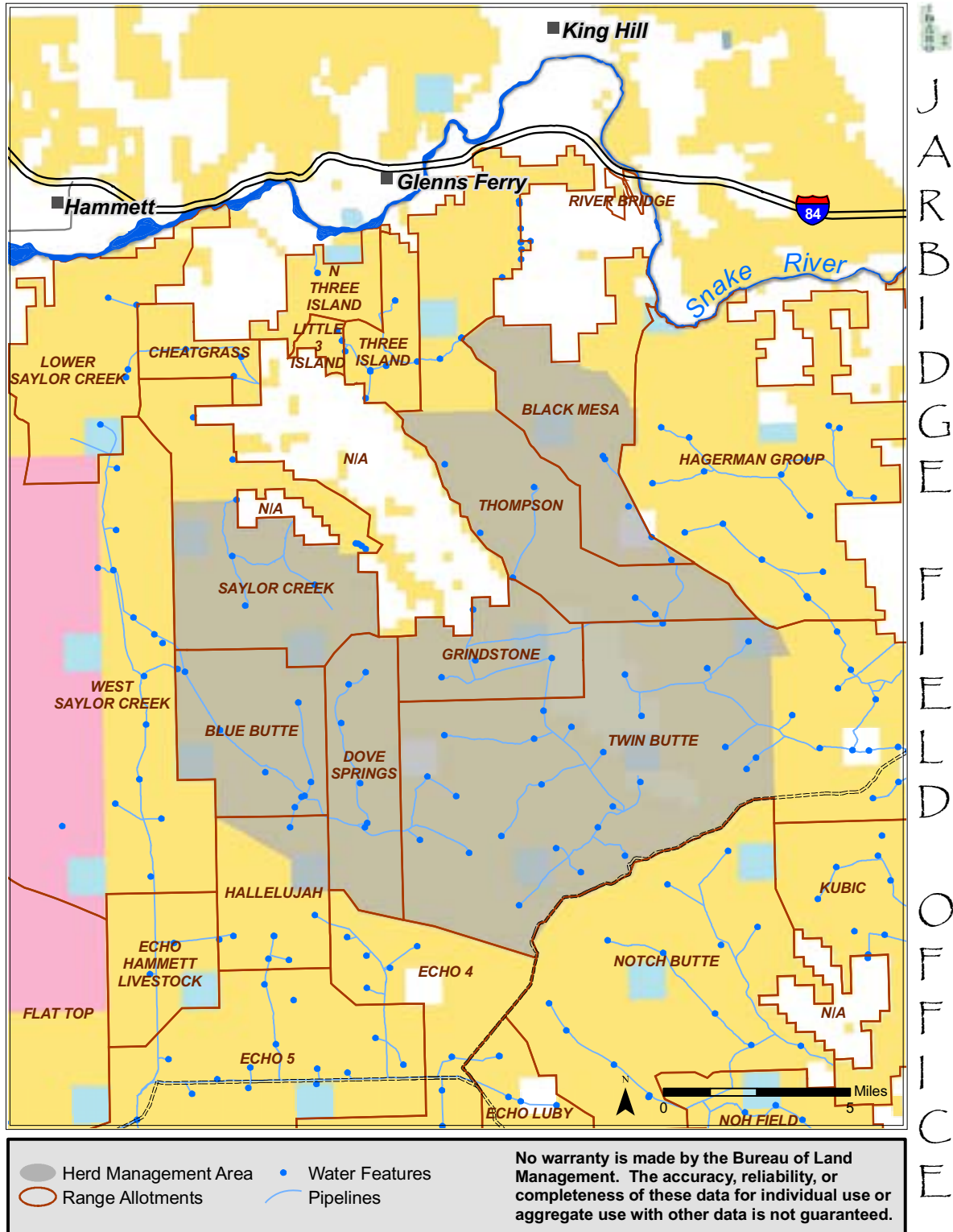
Currently, the HA has approximately 90 miles of pipelines supplied by wells and 70 troughs providing water to domestic livestock and the wild horse herd (Figure 25). All pipelines are supplied by wells. Three pipelines provide the majority of the water to the home range areas. The Blue Butte pipeline provides water to parts or all of the Blue Butte and Dove Springs Allotments and portions of the Hallelujah and Twin Buttes Allotments. The Grindstone Pipeline provides water to the Grindstone, Twin Buttes, Thompson, and Black Mesa Allotments. The Toana and Twin Buttes Pipelines provides water to the Twin Buttes Allotment.

The Toana Pipeline provides water to the largest portion of the wild horse herd. Since the summer of 2005, this pipeline has become unreliable and is a significant liability to management and administration of the herd. During FY 2006 alone, BLM spent in excess of \$110,000 maintaining this pipeline. This figure is a conservative estimate, as it does not include the costs incurred by permittees for maintaining and repairing the pipeline due to wear and tear caused by wild horse use. A major contributing factor to the high maintenance cost is the increased level of use created by wild horses following the 2005 Clover Fire, which burned a significant portion of the HA. It was necessary to conduct an emergency gather and redistribute the herd into approximately half of the HA as a result of that fire. The Toana Pipeline has since received a high amount of use.

Rangeland Health

There are few remaining acres within the HA not significantly altered by repeated wildfires, fire rehabilitation projects, and rangeland vegetation manipulations. The majority of the HA is classified as Herbaceous, Perennial and Annual Graminoid with the vegetation communities dominated by crested wheatgrass or cheatgrass. There are remnant stands of Evergreen Shrublands represented predominantly by rabbitbrush/bluegrass, rabbitbrush/crested wheatgrass, Wyoming sagebrush/bluegrass, and Wyoming sagebrush/crested wheatgrass. Regardless of the vegetation communities, all have a considerable cheatgrass component.

Figure 25. Saylor Creek Herd Management Area



Monitoring data collected in the HA indicates wild horse use in specific areas has negatively affected rangeland health by decreasing plant vigor, increasing bare ground, and increasing soil movement through wind and water erosion. The limited ability to manage distribution, as well as the timing and frequency of grazing by horses, is the primary cause of elevated impacts. Year-round access to favored areas (i.e., the home range) allows repeated grazing and trampling of high impact areas.

Herd Health

When 98 horses were returned to the HA following the emergency gather in February 2006, there were 32 studs, 33 mares, and 33 yearlings. Ten to fifteen horses eluded capture during the emergency gather and remained on the HA. Since the release, 15 foals were born and survived, bringing the total count to approximately 129. Frequent observations of the herd indicate all are in good health in terms of body condition, lameness, and disease.

Trends

Prior to the passage of the Wild and Free-Roaming Horses and Burros Act of 1971, human encroachment involving development of agricultural lands in the Sailor Creek⁹ and Black Mesa areas marked the beginning of a number of activities that would influence the configuration and the distribution of wild horses within the future Saylor Creek HA. Agricultural development tied to applications filed under DLE continued well into the 1980s. Agricultural development in these two areas, water distribution, and increasing OHV activity contributed to the present home ranges in parts of the Twin Buttes and Dove Springs allotments (Figure 25). The historic water sources at Dove Springs and Saylor Creek seeps, along with the development of water sources in the 1960s and 1970s influenced the horses' selection of these areas as their home range.

Since the completion of the 1987 Jarbidge RMP, much of the exterior boundary of the approximately 106,000-acre HA was fenced. Construction of interior fencing also occurred within the HA, forming pasture and allotment boundaries to improve management of livestock grazing. The combination of the exterior and interior fences has limited the opportunity for out-migration or significant expansion of the present home range. Increases in other human activities, primarily motorized recreation, in the northern reaches of the HA have caused the home range to shift south within the HA.

According to the 1985 Jarbidge Proposed RMP/Final EIS, approximately 87 % of the HA, as inventoried in 1981-82, was identified as seedings, 5% as burns, and 8% as poor condition native sagebrush rangeland. The seedings and burns were not given a condition rating at that time. Currently the HA is 40% recent burn, 26% annual grassland, 27% crested wheatgrass seeding, and 7% bluegrass and Wyoming sagebrush/Thurbers needlegrass. Long-term trend studies have not been initiated within the Black Mesa, Grindstone, Hallelujah, and Thompson Allotments; therefore, regular, long-term vegetation trends are unavailable in these allotments.

Large-scale wildland fire rehabilitation seeding, and range improvement projects since the 1960s

⁹ Sailor Creek is the name of an intermittent stream within the HA, as shown on USGS topographic quadrangles. Saylor Creek is the name that has been used for many years to identify the allotment and Wild Horse Herd Area in the area.

resulted in substantially increased vegetative production. To a much lesser extent, historic range improvement projects, in concert with policy at the time of their installation, were used to replace stands of sagebrush having a depleted understory with crested wheatgrass seedings. As a result, additional vegetative production is available for allocation to wildlife, wild horses, livestock, and other non-consumptive uses, as evidenced by production data and historic actual use records.

Until the emergency gather following the 2005 Clover Fire, no gathers or adjustments in AML occurred since the completion of the 1987 Jarbidge RMP. The population grew from the 1987 herd size of 50 head to an estimated 360 animals at the time of the emergency gather. Following the gather and adoption of excess horses, 98 horses were released into the HA.

Forecast

Wildfires are anticipated to continue, particularly in areas with a predominance of cheatgrass. There is growing interest in management options to manipulate the frequency of wildfire in the Jarbidge FO, particularly in regard to maintaining and increasing the abundance of sagebrush. However, the majority of the plant community types, seedings and annual grasslands, in the HA are in a stable state and are not likely to change without major mechanical and/or chemical manipulations. Seed availability and technology will influence the extent of the rehabilitation and restoration that will occur.

Though monitoring data indicates horses have localized impacts on vegetation in areas near water, relative to drought and wildfire, current management of the horse herd will have an insignificant effect on these vegetation communities. Numerous fire rehabilitation projects have occurred within the HA in recent years. Managing the distribution and grazing utilization by horses will be critical to the long-term success of these seedings.

With the administration of fertility control methods, the population is expected to increase at a rate of 15% annually, slower than in the past. All but three mares were treated with a revised immuno-contraceptive vaccine, porcine Zona pellucida (PZP) prior to release in 2006. A single injection will provide up to two years of contraception at approximately 94% efficiency (BLM, 2005a). Treated mares were freeze-branded with "A-#". Contraceptives may become a more common tool in limiting the growth of the horse herd depending on results of effectiveness monitoring. Scheduled, periodic gathers will continue in order to maintain population numbers in the targeted range of the AML.

Key Features

Wild horse herds should be managed in a thriving, natural ecological balance according to the Wild Horse and Burro Act. The primary natural resource feature that should guide management of the wild horse herd is rangeland health. Almost all soils within the HA are moderately to severely erosive. Close consideration of the effects of horse grazing on ground cover, as well as the effects of existing and future range infrastructure in association with management of the wild horse herd, will be necessary. Standard and Guides assessments, long-term trend, and annual monitoring will provide the information necessary to evaluate the effectiveness of herd management in meeting the goals and objectives identified in the RMP.

Current Management

The 1987 Jarbidge RMP directed forage to be provided to support a herd of 50 wild horses in the 83,540-acre Saylor Creek Wild Horse Herd Area; specifically, 600 AUMs in MUA 7.

Approximately 2,000 AUMs are currently used by 152 horses¹⁰. The 1987 Jarbidge RMP also directed the creation of a Wild Horse Management Plan and the designation of Saylor Creek HA as a Herd Management Area (HMA). Those actions have not yet been finalized.

Management Opportunities

In order to address forage needs for the wild horse herd, the appropriate population range needs to be established in accordance with the current carrying capacity. The 1987 RMP established an appropriate management level (AML) of 50 head. The increase in available forage due to extensive seedings has increased the carrying capacity of the HA for wildlife, wild horses, and livestock.

The HA should be evaluated on its merits of being able to provide sufficient genetic viability, and its ability to provide a natural environment with minimal human input in the revised plan.

The revised RMP will address OHV management within the HA through travel management designations.

¹⁰ 1 Horse = 1.25 AUMs (BLM Manual Handbook H-4410-1).