



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Elko District Office

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In Reply Refer To:

4130 (NVE020)

April 2, 2010

Dear Interested Public:

I am writing to initiate public consultation regarding formulation of a management plan for the Trout Creek Pasture and associated exclosures (Trout Creek Exclosures #1, 2, 3, and 4, and the Bailey Fire Exclosure) in the Pine Mountain Allotment south of Carlin, Nevada (See maps enclosed).

A draft assessment of resource conditions and trends within the Trout Creek Pasture was issued on July 14, 2009. At the same time, we issued a decision closing the Trout Creek Pasture to livestock use through November 30, 2010. There were no appeals.

The draft assessment included preliminary determinations as to whether or not there were significant progress being made towards attainment of the applicable standards for rangeland health and, if not, what were the significant causal factors. The headings of the four applicable standards are 1) Upland Sites, 2) Riparian and Wetland Sites, 3) Habitat, and 4) Cultural Resources. We determined the following:

- The upland site standard had been partially met,
- The riparian and wetland site standard had not been met,
- The habitat standard had not been met,
- The cultural resource standard had not been met,
- Significant progress towards attaining the standards was not occurring, and
- Historic livestock use, recent livestock use, and wildfire were significant causal factors in failing to make significant progress towards attainment of the standards.

At this time, we are soliciting your ideas on how the Trout Creek Pasture and related exclosures could be managed.

To facilitate this process, we have attached descriptions of the standards and guidelines for rangeland health including the conclusions and determinations from the draft assessment. We have also included a list of common management goals followed by a list of management ideas, which may help elicit additional ideas.

We will develop the alternatives to be analyzed in an appropriate planning document which will consider comments received. We will also determine if an analysis will be prepared that either

relates only to the management alternatives for the Trout Creek Pasture, or include them in the analysis that addresses management for the entire Pine Mountain Allotment. We plan to prepare an assessment of resource conditions and trends for the remainder of the Pine Mountain Allotment this year, and solicit your thoughts on management actions to implement on the allotment. In either case, we plan to offer the analysis of the management alternatives for your review and comment. After reviewing comments on the analysis, a decision will be issued to implement the selected management actions.

Please return your comments within 30 days of the date of this letter.

If you have any questions, please contact Karl Scheetz of my staff at 775-753-0280 or via email to Karl_Scheetz@blm.gov. You may return your comments to the Elko BLM (Attn: Karl Scheetz) either by mailing a hard copy to the address in the letterhead, or via Fax at 775-753-0255, or via email to Karl_Scheetz@blm.gov.

Sincerely yours,

David Overcast
Field Manager
Tuscarora Field Office

Trout Creek Pasture and Trout Creek Enclosures #1, 2, 3, 4, and Bailey Fire Enclosure Pine Mountain Allotment

Standard 1. Upland Sites: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and land form.

Guidelines:

1.1: Livestock grazing management ... is appropriate when in combination with other multiple uses they maintain or promote upland vegetation and other organisms and provide for infiltration and permeability rates, soil moisture storage, and soil stability appropriate to the ecological sites within management units.

1.2: When livestock grazing management... alone is not likely to restore areas of low infiltration or permeability, land management treatments should be designed and implemented where appropriate.

1.3: Livestock grazing management... is adequate when significant progress is being made toward this standard.

Conclusions and Determinations from Draft Assessment

The Trout Creek Standards and Guidelines Assessment determined the Upland Standard 1 was being partially met and partially not met, and inadequate progress was being made towards the standard. Historic livestock use, wildfire, and existing livestock grazing management practices were significant causal factors for not attaining the standard. Existing livestock grazing management practices did not conform to the guidelines.

From the information considered in the assessment, we believe the hydrologic function and soil stability of substantial portions of the uplands in the Trout Creek Pasture are impaired to varying degrees, and that portions of the pasture are impaired to such a degree that the standard is not being met, and that there is inadequate progress towards attainment of the upland site standard.

Those areas that continue to have greatly reduced amounts of perennial plants likely have reduced abilities to store water on site and slow its movement off site. Although dense cheatgrass and annual forbs can provide reductions in rainfall impact and water movement, they don't have as much root mass to slow the migration of water from flowing off-site as do the perennial grasses and shrubs, particularly on the steeper slopes. This impairment is one of the primary reasons for the determination that the standard for upland sites is not being met.

A second and related reason for the standard not being met is the likelihood of extensive soil erosion occurring from high intensity runoff events on those areas that continue to have greatly reduced amounts of perennial plants.

Excessive historic livestock grazing (prior to the beginning of this evaluation period) significantly reduced the perennial grass cover in certain areas, and the 1999 Sadler Fire significantly reduced the shrub cover and associated litter and mosses, which predisposes substantial portions of this pasture to impaired hydrologic function and accelerated soil erosion (Meeuwig 1969, Wilcox et al. 1988 and 1989, Goff et al. 1993).

During the evaluation period, the levels of utilization recorded at the key area through 2003 show that, by the end of the grazing year, utilization was in the high moderate to heavy use categories which would have resulted in a reduction in vegetative cover that would likely have been significant in terms of exposing the soils to accelerated erosion from rainfall impacts and runoff (Thurow et al. 1988). The surface disturbance from cattle walking and climbing while grazing and trailing also expands the bare spaces between plants thus creating additional pathways for accelerated water flows and erosion. In addition, use has been occurring annually from April through November (through 2003) which would reduce the amount of seed available for the perennial grasses to repopulate the areas that have reduced levels. Although cheatgrass will tend to inhibit the establishment of new perennial grasses, there are usually some openings in which some perennials can establish and, occasionally, there are years when the opportunities for perennial grasses to establish new plants are quite favorable such as when there is a high amount of soil moisture for an extended period in the spring/summer creating a situation where there is little competition with other plants nearby. Therefore, giving bluebunch wheatgrass and other later maturing grasses opportunities to regularly drop most of the seeds they produce would improve the chances of increasing the numbers and cover of these species over decades of time.

In 2004, the pasture fence was built to enclose the Trout Creek Pasture. Since that time, key forage plant utilization data were only collected in 2008. The 2008 utilization data from the key area indicates that utilization was not excessive. However, observations of utilization on the valley bottoms, lower slopes, and ephemeral drainages closer to water showed signs of excessive grazing and surface disturbance that exposes these areas to accelerated erosion and runoff. Use has also been occurring annually during the critical growing season (May through July) which would reduce the amount of seed available for the perennial grasses to repopulate the areas that have reduced levels. The size of the areas that are still receiving excessive livestock use along with grazing use every year during the critical growing season are not conducive to attaining the upland site standard. These factors indicate that livestock use during the evaluation period, including the use through 2008, has been a significant causal factor in failing to make significant progress towards achievement of the upland site standard. Unauthorized use by livestock since 2004 has added to the unsatisfactory conditions on portions of the pasture.

Standard 2. Riparian and Wetland Sites: Riparian and wetland areas exhibit a properly functioning condition and achieve state water quality criteria.

Guidelines:

2.1: Livestock grazing management... will maintain or promote sufficient vegetation cover, large woody debris, or rock to achieve proper functioning condition in riparian and wetland areas. Supporting the processes of energy dissipation, sediment capture, groundwater recharge, and stream bank stability will thus promote stream channel morphology (e.g. width/depth ratio,

channel roughness, and sinuosity) appropriate to climate, landform, gradient, and erosional history.

2.2: Where livestock grazing management...are not likely to restore riparian and wetland sites, land management treatments should be designed and implemented where appropriate to the site.

2.3: Livestock grazing management... will maintain, restore or enhance water quality and ensure the attainment of water quality that meets or exceeds state standards.

2.4: Livestock grazing management... are adequate when significant progress is being made toward this standard.

Conclusions and Determinations from Draft Assessment

This standard is not being met and there is inadequate progress towards the standard. Historic livestock use, wildfire, and existing livestock use are considered to be significant causal factors for not attaining the standard. Current livestock use is therefore not in conformance with the guidelines.

Proper functioning conditions assessments completed by BLM in 2008 and 2009 show 89% of assessed lotic riparian habitats and 100% of assessed lentic riparian habitats located on public lands in the Trout Creek drainage are either nonfunctional or functioning at risk, trend downward or not apparent. Extensive loss of cover in both the watershed and along stream corridors as a result of historic and recent livestock grazing practices combined with the cumulative effects of fires, roads damage, and floods have led to increases in sediment supplies and in the magnitude and timing of streamflow events to the point where much of the system is severely entrenched. In many areas, riparian plant communities on floodplains drained by channel incision are being replaced by upland species including invasive weeds. Headcuts pose potential barriers to upstream trout movement causing loss of fisheries habitat. In the case of springs along the South Fork of Trout Creek, hydric functions appear to be lost completely. Water quality was also impaired including excessive warm temperatures as well as elevated levels of phosphorous and fecal coliform associated with overuse of the riparian corridor by livestock and loss of streambank cover.

Although remnant aspen stands inside exclosures still provide important energy dissipation and stream stabilization functions, aspen has been greatly reduced from its historic extent along both the mainstream as well as the South Fork of the Trout Creek drainage. The combined effects of fires, beaver, channel downcutting, and overgrazing of suckers by livestock are the likely mechanism for this reduction.

Standard 3. Habitat: Habitats exhibit a healthy, productive, and diverse population of native and/or desirable plant species, appropriate to the site characteristics, to provide suitable feed, water, cover and living space for animal species and maintain ecological processes. Habitat conditions meet life cycle requirements of threatened and endangered species.

Guidelines:

3.1: Livestock grazing management... levels will promote the conservation, restoration and maintenance of habitat for threatened and endangered species, and other special status species as may be appropriate.

3.2: Livestock grazing intensity, frequency, season of use and distribution... levels should provide for growth and reproduction of those plant species needed to reach long-term land use plan objectives. Measurements of ecological condition and trend/utilization will be in accordance with techniques identified in the *Nevada Rangeland Monitoring Handbook*.

3.3: Livestock grazing management... should be planned and implemented to allow for integrated use by domestic livestock, wildlife... consistent with land use plan objectives.

3.4: Where livestock grazing management... alone are not likely to achieve habitat objectives, land treatments may be designed and implemented as appropriate.

3.5: When native plant species adapted to the site are available in sufficient quantities, and it is economically and biologically feasible to establish or increase them to meet management objectives, they will be emphasized over non-native species.

3.6: Livestock grazing management... are adequate when significant progress is being made toward this standard.

Conclusions and Determinations from Draft Assessment

This standard is not being met. Historic livestock use, wildfire, and existing livestock use are considered to be significant causal factors for not attaining the standard. Current livestock use is therefore not in conformance with the guidelines. Although Trout Creek historically supported LCT (a federally listed threatened species), they are assumed to have been extirpated from this stream.

Wildlife habitat condition monitoring conducted between 1984 and 1999 indicated that native perennial grass and forb composition, diversity and cover were extremely limited. Cheatgrass, an invasive exotic annual species, comprised 85%, 64.4%, 80.2% and 86% of the entire grass sample in 1984, 1989, 1995 and 1999, respectively.

Livestock grazing use on key perennial grass species exceeded maximum utilization objectives in eight of 11 years that data were collected between 1984 and 2009. Use on key browse species exceeded maximum utilization objectives in six of seven years that data were collected (see both Table 1 Section B, III. Summaries of Monitoring Data and Observations and Table 1, Appendix

III). Chronic poor form class between 1984 and 2003 and periods with heavy to severe utilization affected potential antelope bitterbrush (key browse species) growth and vertical cover.

Currently, riparian areas within the pasture do not exhibit a proper functioning condition. Healthy habitat conditions required for game and non-game species including migratory birds, raptors and special status species are currently lacking. Deteriorated upland and riparian habitat conditions are considered limiting factors in regard to sage grouse nesting, brood-rearing and fall/winter habitat, and mule deer summer habitat.

Improvements in the diversity of perennial native herbaceous vegetation, browse vigor and riparian/meadow conditions are needed to help improve habitat conditions for terrestrial wildlife species.

Standard 4. Cultural Resources: Land use plans will recognize cultural resources within the context of multiple use.

Guidelines:

4.1: Rangeland management plans will consider listings of known sites that are National Historic Register eligible or considered to be of cultural significance and new eligible sites as they become known.

Conclusions and Determinations from Draft Assessment

Standard 4 has not been met, and current livestock grazing use is considered to be a significant causal factor.

Because BLM issues permits for grazing, this activity and the improvements associated with it are undertakings requiring compliance with Section 106 of the National Historic Preservation Act. This means that the agency must make a good faith effort to locate all of the historic properties (i.e., places eligible for the National Register of Historic Places) and ensure that they are not adversely effected by, in this case, grazing related activities.

Several dozen cultural resource inventories completed within or around the assessment area have documented about 75 cultural resources. Most of them were recorded several decades ago, so the available information is limited. Only 9 historic properties are known. Prehistoric eligible sites include 3 chipped-stone scatters with tools and 2 camps. Historic eligible sites are either a charcoal platform connected with mining related activities or the abandoned Palisades & Eureka railroad grade. Seven (or 78%) of the historic properties show evidence of damage from grazing related activities, include fences, roads, cattle trails, and animal tramping or breakage of artifacts. However, this sample of historic properties is extremely small, representing < 10% of the properties believed to exist within the assessment area.

Statistical analyses of the distributions of historic properties indicate that they more often occur at middle-elevations (5500-6500 feet) in proximity (< 1 km) from permanent, natural water sources such as springs and streams. Thus, the impacts to known and unknown historic

properties arising from grazing activities can be lessened by designing range improvements and grazing intensity to avoid water sources, and by focusing them at higher or lower elevations.

While past and current grazing practices within the assessment area have considered cultural resources as part of multiple-use, adverse effects have occurred to known, and very likely to the unknown, historic properties. Livestock use as it is currently occurring, if unchanged, will continue to adversely affect cultural resources.

Common Goals

How can we manage to achieve:

- Significant upward trends in riparian/fishery habitat?
- Reduced amounts of soil erosion?
- Increased density of upland perennial grasses and shrubs in those areas where they are few in number?
- Good quality habitat (water, food, and cover) for sage grouse including strutting, nesting, brood rearing, and winter areas, and for other small wildlife?
- Good quality habitat (water, food, and cover) for mule deer and antelope?
- Forage and water to support the livestock operation?
- Reduced risks of large scale block burns from wildfire?
- Reduced adverse effects to cultural resources?

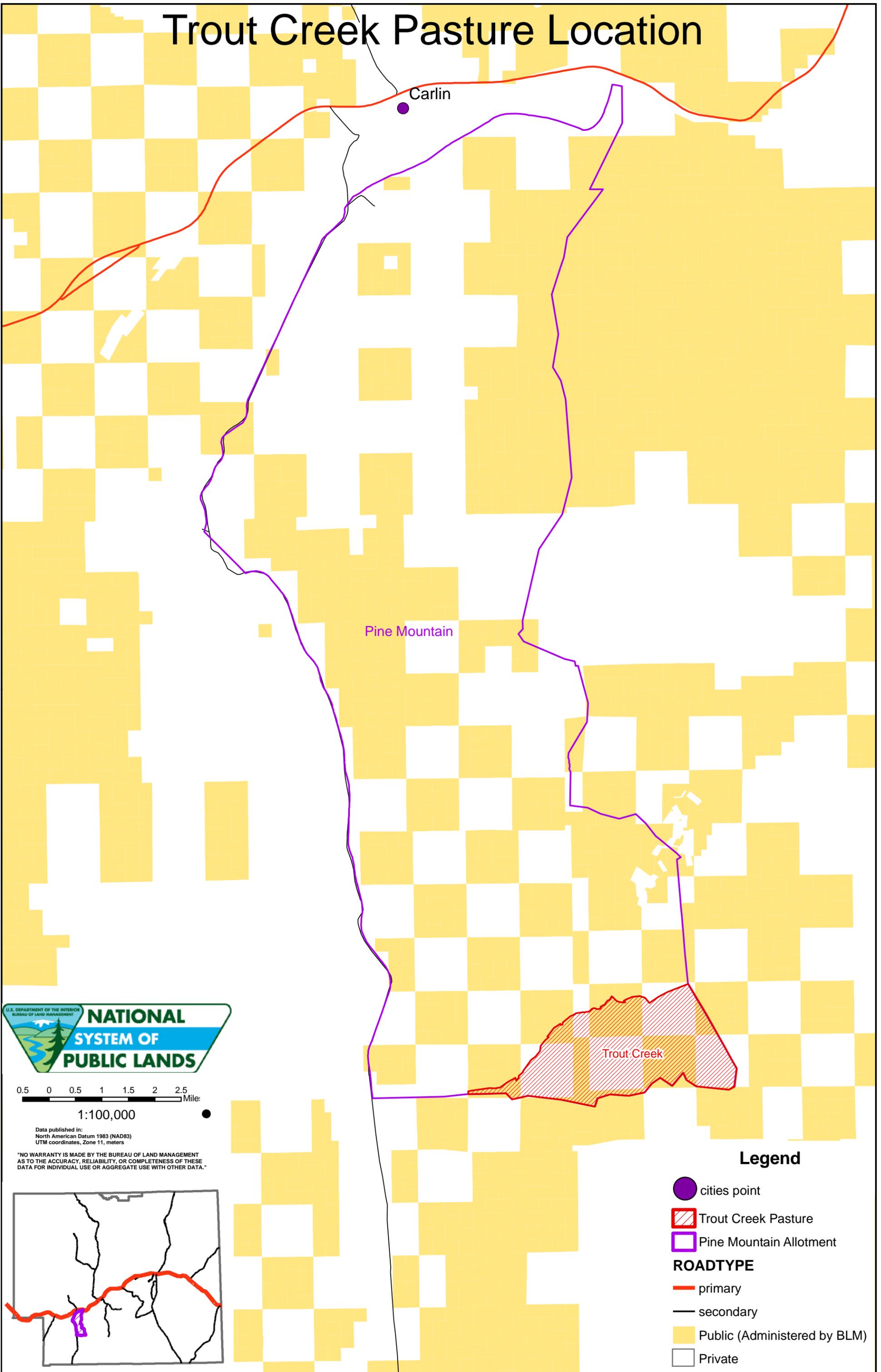
Ideas for Future Management

- A. Continue the closure to livestock grazing for a long enough period to allow recovery.
- B. A much larger area should be considered for closure in order to allow sufficient recovery to meet the needs of sage grouse and other sensitive or rare species.
- C. Remove the pasture fences and require the livestock permittee to actively herd the livestock.
- D. Apply conservative standards of livestock use as triggers for the removal of livestock such as no more than 10% use of any upland grass species; less than 10% trampling and a 6 inch minimum stubble height on any accessible portion of a streambank/spring brook/meadow; less than 5% use or breakage on upland and riparian shrubs.
- E. Apply utilization objectives for upland key species to include an average of 50% use of current year's growth on key perennial grasses, and an average of 45% use of current year's leader growth on bitterbrush (includes combined use by cattle and big game). Maximum allowable use of herbaceous and woody riparian vegetation would not exceed 35% utilization. Livestock streambank alteration (bank trampling and sheering) would not exceed 20% (percentages are based on an average measurement from all stations for each stream).
- F. Move the upland key areas to those areas that commonly receive the highest levels of use such as the flat/gently sloped openings next to riparian areas.
- G. Fence the riparian areas so they can be managed separate from the uplands.
- H. Fence the Trout Creek Pasture into several smaller pastures and rotate use with shorter periods of use.

- I. Install water pipelines that would deliver water to troughs placed away from the riparian areas.
- J. Seed perennial plant species in areas that have few perennial plants.
- K. Control noxious weeds through biological control (insects that damage the plants), mechanical control (hand shovels), and herbicide applications.
- L. Let livestock graze the vegetative growth to an extent that would alter fire behavior so that wildfire would spread more slowly and limit burns to smaller sizes. Consider using herded sheep to target certain areas.
- M. Graze the riparian exclosures for short periods to remove old growth on the upland plants while allowing the riparian zones to continue to improve.
- N. Implement a grazing rotation cycle that would be riparian/upland friendly where late or hot season use occurs in less than 50% of the years in a grazing cycle. Some compatible grazing cycles are as follows:
 - 1) Late, rest, hot, early.
 - 2) Late, rest, rest.
 - 3) Early, late, rest.
 - 4) Rest, hot, early.
 - 5) Late, rest, early.
 - 6) Very late, rest, early.
 - 7) Rest, hot, rest.

Where: Early=off by 6/15; Hot=6/16-9/15; Late=9/15-end; Very late=10/15-end.

Trout Creek Pasture Location

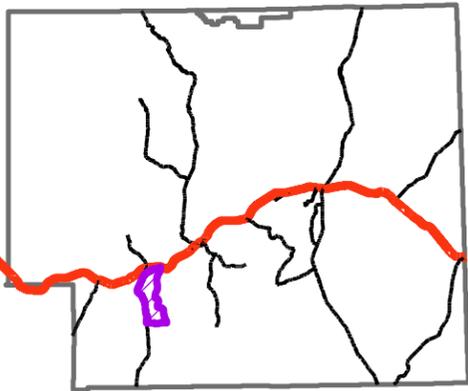


0.5 0 0.5 1 1.5 2 2.5 Mile

1:100,000

Data published in:
North American Datum 1983 (NAD83)
UTM coordinates, Zone 11, meters

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Legend

- cities point
- ▨ Trout Creek Pasture
- ▭ Pine Mountain Allotment
- ROADTYPE**
- primary
- secondary
- Public (Administered by BLM)
- Private

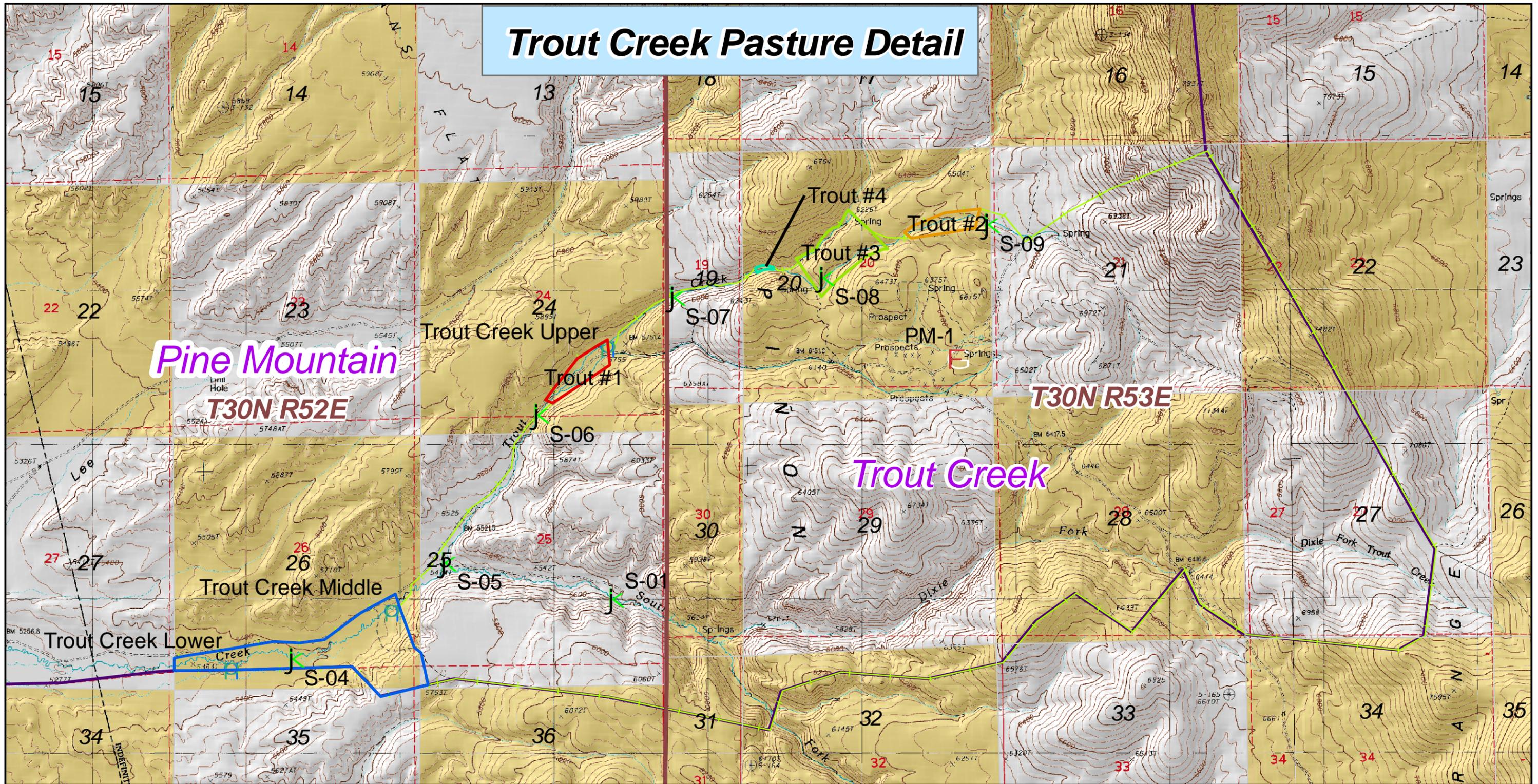
Trout Creek Pasture Detail

Pine Mountain

T30N R52E

T30N R53E

Trout Creek



1:24,000



Legend

- | | | |
|--|--|---|
| F Key Area | W Water Quality Monitoring Sites | Trout Creek Pasture |
| j Stream Sureway Stations | Township Boundary | Pine Mountain Allotment |
| Enclosures | Section Boundary | Public (Administered by BLM) |
| Name | Private | |
| Trout #1 | | |
| Trout #2 | | |
| Trout #3 | | |
| Trout #4 | | |
| Bailey | | |

Data published in:
North American Datum 1983 (NAD83)
UTM coordinates, Zone 11, meters

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