U.S. Department of the Interior
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STANDARDS DETERMINATION DOCUMENT
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Paris Livestock (2704538)
Term Grazing Permit Renewal on the
Corta (10033) and South Pancake (00615) Allotments

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Standards and Guidelines Assessment

The Standards and Guidelines for Nevada's Northeastern Great Basin Area were developed by the Northeastern Great Basin Area Resource Advisory Council (RAC) and approved in 1997. Standards and guidelines are likened to objectives for healthy watersheds, healthy native plant communities, and healthy rangelands. Standards are expressions of physical and biological conditions required for sustaining rangelands for multiple uses. Guidelines point to management actions related to livestock grazing for achieving the standards.

This Standards Determination Document evaluates and assesses livestock grazing management achievement of the Standards and conformance with the Guidelines for the Corta and South Pancake Allotments in the Ely and Battle Mountain BLM Districts. This document does not evaluate or assess achievement of the Wild Horse and Burro or the Off Highway Vehicle Standards or conformance to their respective Guidelines.

The Standards were assessed for the Corta and South Pancake Allotments by a BLM interdisciplinary team. Documents and publications used in the assessment process include the Soil Survey of Western White Pine Area, Nevada, Parts of White Pine County and Eureka Counties (USDA-NRCS 1997); Soil Survey of Diamond Valley Area, Nevada, Parts of Elko, Eureka, and White Pine Counties (USDA-NRCS 1980); Ecological Site Descriptions for Major Land Resource Area 28B (USDA-NRCS 2003); Interpreting Indicators of Rangeland Health (USDI-BLM et al. 2000); Sampling Vegetation Attributes (USDI-BLM et al. 1996); and the National Range and Pasture Handbook (USDA-NRCS 1997). A complete list of references is included at the end of this document. All are available for public review in the Ely BLM District Office. The interdisciplinary team used rangeland monitoring data, professional observations, and photographs to assess achievement of the Standards and conformance with the Guidelines.

The Corta Allotment encompasses approximately 1,130 public land acres. The grazing allotment occurs entirely within Eureka County, and is situated approximately 45 miles north of Eureka, Nevada (Appendix II, Figure 1). This grazing allotment is within the Battle Mountain BLM District (Mount Lewis Field Office) and borders the Elko and Ely BLM Districts. The Corta Allotment is within the Diamond Wild Horse Herd Management Area. This allotment is located within sage grouse, deer, elk, and antelope habitat. No wilderness occurs within or adjacent to the Corta Allotment.

The South Pancake Allotment encompasses approximately 31,088 public land acres. The grazing permit area occurs entirely within White Pine County, and is situated approximately 45 miles west of Ely, Nevada (Appendix II, Figure 4). The South Pancake Allotment is within the Pancake Wild Horse Herd Management Area. This allotment is located within sage grouse, deer, elk, and antelope habitat. No wilderness occurs within the South Pancake Allotment. The nearest wilderness areas are the White Pine Range Wilderness and Shellback Wilderness, which are approximately 15 miles away.

The current term permit is issued for the period of 10/15/2006 to 10/14/2016. This is a sheep permit with a total grazing preference of 200 AUMs on the Corta Allotment. Of these, 128 AUMs are active and 72 AUMs are suspended nonuse. The current term permit authorizes approximately 4,850 head of sheep on the Corta Allotment with a season of use from 05/01 to 05/04. This short season of use is due to a clerical error in the current permit. The correct season of use for the Corta Allotment is 05/01 to 05/31 with approximately 640 head of sheep (BLM 1999). The total grazing preference on the South Pancake Allotment is 1,155 AUMs. Of these, 1,155 AUMs are active and 0 AUMs are suspended nonuse. The current term permit authorizes approximately 2,268 head of sheep on the South Pancake Allotment with a season of use from 03/15 to 04/30 and approximately 1,114 sheep on the South Pancake Allotment with a season of use from 11/15 to 01/15.

Under this permit, sheep grazing on the Corta Allotment occurs in the eastern approximately third of the allotment.

The primary plant communities on the Corta Allotment are Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) with Indian ricegrass (*Achnatherum hymenoides*) and needleandthread (*Hesperostipa comata*) and big sagebrush (*Artemesia tridentata*) with Thurber's needlegrass (*Achnatherum thurberianum*) and bluebunch wheatgrass (*Pseudoroegneria spicata*). The ecological sites associated with these vegetation types are a Loamy 8-10" P.Z. site (028BY010NV) and a Loamy 10-12' P.Z. site (028BY007NV). The far western portion of this allotment is within an alkali flat.

The primary plant communities on the South Pancake Allotment are winterfat (*Krascheninnikovia lanata*) with Indian ricegrass and black sagebrush (*Artemisia nova*) with Indian ricegrass and needleandthread. The ecological sites associated with these vegetation types are a Silty 8-10 site (028BY013NV), Coarse Silty 6-8" P.Z. site (028BY084NV), and a Shallow Calcareous Loam 8-10 site (028BY011NV).

Two key areas have been established and monitored over the past ten years on the Corta Allotment based on accessibility and general use by livestock, vegetation, and ecological range sites. Key area CO-1 occurs in the Loamy 8-10" P.Z. ecological site with key forage species including western wheatgrass (*Pascopyrum smithii*), needleandthread, Indian ricegrass, and basin wildrye (*Leymus cinereus*). Key area CO-2 occurs in the Loamy 10-12" P.Z. ecological site with key forage species including Thurber's needlegrass, basin wildrye, and bottlebrush squirreltail (*Elymus elymoides*; Appendix I, Table 1.1-1; Appendix II, Figure 2).

Four key areas have been established and monitored over the past twenty years on the South Pancake Allotment based on accessibility and general use by livestock, vegetation, and ecological range sites. Key area SP-1 occurs in the Silty ecological site with key forage species including winterfat, Indian ricegrass, and bottlebrush squirreltail. Key area SP-2 occurs in the Shallow Calcareous Loam ecological site with key forage species including black sagebrush, winterfat, and Indian ricegrass. Key area SP-3 occurs in the Coarse Silty ecological site with key forage species including winterfat and bottlebrush squirreltail. Key area SP-4 occurs in the Shallow Calcareous Loam ecological site with key forage species including black sagebrush, winterfat, and Indian ricegrass (Appendix I, Table 2.1-1; Appendix II, Figure 5).

A summary of monitoring data for both the Corta and the South Pancake Allotments is located in Appendix I of this document.

PART 1. STANDARD CONFORMANCE REVIEW

CORTA ALLOTMENT

Standard 1. Upland Sites

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

As indicated by:

- Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to potential of the site.

Determination:

X Achieving the Standard

□ Not Achieving the Standard, but making significant progress towards achieving

□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors

□ Livestock are a causal factor to not achieving the standard.

□ Livestock are not a causal factor to not achieving the standard

□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:

X In conformance with the Guidelines

□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

Rangeland monitoring data and professional observation indicates that overall soil condition is currently being maintained on the Corta Allotment. Line intercept cover data collected on the allotment indicates that the allotment is meeting the standard. Vegetative cover registered within the appropriate or expected ground cover percentage for all of the key areas where data was collected (See Appendix I, Table 1.4-1).

Key area CO-1 occurs on a Ridit-Alpha association (RD; NRCS 1980) with a Loamy 8-10" P.Z. ecological site (028BY010NV). These soils typically have a moderate to moderately slow permeability. The approximate ground cover (basal and ground) for a Loamy 8-10 site is 10-20 percent. Monitoring data indicate that this key area has a shrub canopy cover of 10 percent. This is within the potential for the site. Some evidence of soil movement was noted on the site. No pedestaling, gullies, rills, or wind scouring was noted.

Key area CO-2 occurs on a Pedoli gravelly fine sandy loam (PeB; NRCS 1980) with a Loamy 10-12" P.Z. ecological site (028BY007NV). These soils typically have a moderately slow

permeability. The approximate ground cover (basal and ground) for a Loamy 10-12 site is 20-30 percent. Monitoring data indicate that this key area has a shrub canopy cover of 26 percent. This is within the potential for the site. Some evidence of past soil movement was noted on the site with some grasses being pedestaled. No gullies, rills, or wind scouring was noted.

Furthermore, utilization at both key areas was measured at the slight level. This low level of utilization allows for plant maintenance and provides adequate litter which will further protect the soil surface and promote infiltration and permeability across the Corta Allotment as well as provide stability to the watershed.

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

As indicated by:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating proper functioning condition such as avoiding accelerating erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:
    - Width/Depth ratio; Channel roughness; Sinuosity of stream channel; Bank stability; Vegetative cover (amount, spacing, life form); and other cover (large woody debris, rock).
    - Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.
    - Chemical, physical and biological water constituents are not exceeding the state water quality standards.

The above indicators shall be applied to the potential of the site.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
X Not Achieving the Standard, and not making significant progress toward standard

Causal Factors
□ Livestock are a causal factor to not achieving the standard.
X Livestock are not a causal factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, and not making significant progress towards. Livestock are not a contributing factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Two unnamed springs on the Corta Allotment were assessed for proper functioning condition (PFC). These are the only spring/riparian sources on the allotment (Appendix I, Table 1.5-1; Appendix II, Figure 3). Both springs were visited in 2008 by an interdisciplinary (ID) team.

The eastern unnamed spring was found to be functioning at risk with no apparent trend. The banks do not appear to have the elements needed to dissipate the energy from a high flow event (stream bank vegetation, rocks, coarse and/or large woody debris). The system is still recovering from the last high flow event. Also the system is not vertically stable with a head cut still prominent from the last high flow event. Evidence of cattle and horses was observed, however livestock were not identified as a causal factor to unacceptable conditions.

The western unnamed spring was found to be a dry, ephemeral gully with a stock water development at the bottom. The ID Team determined this site did not meet the criteria for determining PFC.

According to the 1998 Diamond Mountain Complex Evaluation, these two springs were both found to be functioning at risk with a static trend.

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 the life cycle requirements of threatened and endangered species.

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:
X Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
□ Not Achieving the Standard, not making significant progress toward standard

Causal Factors
□ Livestock are a causal factor to not achieving the standard.
□ Livestock are not a causal factor to not achieving the standard
□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

Rangeland monitoring data (Appendix I) and professional observations indicate that vegetation composition, structure, distribution, and productivity on the Corta Allotment are consistent with the Rangeland Ecological Site Descriptions (ESD) and/or expected plant community for the area.

Vegetation is comprised of those species indicated in the ESD for the ecological sites found on the allotment (Appendix I, Table 1.6-1 and 1.6-2) as indicated in site notes for both key areas on the Corta Allotment. This information in combination with an evaluation of monitoring photos (Appendix I, Section 1.7) indicates that there is a good species composition on the allotment. The pictures show a strong grass component interspersed with shrubs. Several perennial forb species were also noted in the site notes. According to the ESDs, CO-1 composition should be approximately 50 percent grasses, 5 percent forbs, and 45 percent shrubs and trees while CO-2 composition should be approximately 65 percent grasses, 10 percent forbs, and 25 percent shrubs and trees. Some cheatgrass was also noted at CO-2 and a low incidence of invasive species was noted at CO-1.

No quantitative data on vegetation structure, distribution, and production were collected. However site notes indicate that vegetative structure is composed of varying age classes and heights of plants. Vegetation is distributed across the landscape as expected. The sites are also producing adequate amounts of vegetation. These are indicators that the Corta Allotment is meeting the standard for habitat.

SOUTH PANCAKE ALLOTMENT

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

As indicated by:
- Indicators are canopy and ground cover, including litter, live vegetation and rock, appropriate to potential of the site.

Determination:
X Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards achieving
□ Not Achieving the Standard, and not making significant progress toward standard

Causal Factors
□ Livestock are a causal factor to not achieving the standard.
□ Livestock are not a causal factor to not achieving the standard
□ Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Standard Achieved

Rangeland monitoring data and professional observation indicates that overall soil condition is currently being maintained on the South Pancake Allotment. Soils are stable and productive and the topsoil is holding in place. No evidence of rills, gullies, compaction, or pedestaling were noted. Line intercept cover data collected on the allotment indicate that the vegetative cover on the allotment is not as expected since it registered below the appropriate or expected ground cover percentage at three of the four key areas (See Appendix I, Table 2.4-1). However, utilization across the allotment was measured at the slight to moderate level. This level of utilization allows for plant maintenance and provides adequate litter which will further protect the soil surface and promote infiltration and permeability across the South Pancake Allotment as well as provide stability to the watershed. Furthermore, cryoptobiotic crusts and lichens are also present on the soil surface. Therefore, the allotment is achieving this standard by providing appropriate stability to the soil surface through canopy and ground cover, including live vegetation, litter, and biotic soil surface features.

Key area SP-1 occurs on a Linoyer-Heist-Tulase soil association (232; NRCS 1997) with a Silty 8-10" P.Z. ecological site (028BY013NV). These soils typically have a moderate to moderately rapid permeability. The approximate ground cover (basal and ground) for a Silty site is 10-20 percent. Monitoring data indicate that this key area has a vegetative cover of 8 percent with a litter cover of 4 percent.

Key area SP-2 occurs on a Palinor very gravelly loam (282; NRCS 1997) with a Shallow Calcareous Loam 8-10" P.Z. ecological site (028BY011NV). These soils typically have a moderate permeability. The approximate ground cover (basal and ground) for a Shallow Calcareous Loam site is 15-20 percent. Monitoring data indicate that this key area has a vegetative cover of 37 percent with a litter cover of 2 percent. The site is maintaining cover greater than the potential for the site which is not negatively affecting infiltration and permeability.

Key area SP-3 occurs on a Palinor-Shabliss soil association (286; NRCS 1997) with a Coarse Silty 6-8" P.Z. ecological site (028BY084NV). These soils typically have a moderate permeability. The approximate ground cover (basal and ground) for a Coarse Silty site is 10-20 percent. Monitoring data indicate that this key area has a vegetative cover of 7 percent with a litter cover of 1 percent.

Key area SP-4 occurs on a Palinor-Shabliss soil association (286; NRCS 1997) with a Shallow Calcareous Loam 8-10" P.Z. ecological site (028BY011NV). These soils typically have a moderate permeability. The approximate ground cover (basal and ground) for a Shallow Calcareous Loam site is 15-20 percent. Monitoring data indicate that this key area has a vegetative cover of 13 percent with a litter cover of 9 percent.

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

As indicated by:

- Stream side riparian areas are functioning properly when adequate vegetation, large woody debris, or rock is present to dissipate stream energy associated with high water flows. Elements indicating proper functioning condition such as avoiding accelerating erosion, capturing sediment, and providing for groundwater recharge and release are determined by the following measurements as appropriate to the site characteristics:

    - Width/Depth ratio; Channel roughness; Sinuosity of stream channel; Bank stability; Vegetative cover (amount, spacing, life form); and other cover (large woody debris, rock).
    - Natural springs, seeps, and marsh areas are functioning properly when adequate vegetation is present to facilitate water retention, filtering, and release as indicated by plant species and cover appropriate to the site characteristics.
    - Chemical, physical and biological water constituents are not exceeding the state water quality standards.

The above indicators shall be applied to the potential of the site.

Determination:
X Not Applicable
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
□ Not Achieving the Standard, and not making significant progress toward standard

Conclusion: Not applicable.
No known riparian areas occur on the South Pancake Allotment.

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 the life cycle requirements of threatened and endangered species.

As indicated by:

- Vegetation composition (relative abundance of species);
- Vegetation structure (life forms, cover, height, or age class);
- Vegetation distribution (patchiness, corridors);
- Vegetation productivity; and
- Vegetation nutritional value.

Determination:
□ Achieving the Standard
□ Not Achieving the Standard, but making significant progress towards
X Not Achieving the Standard, not making significant progress toward standard

Causal Factors
□ Livestock are a causal factor to not achieving the standard.
X Livestock are not a causal factor to not achieving the standard
X Failure to meet the standard is related to other issues or conditions

Guidelines Conformance:
X In conformance with the Guidelines
□ Not in conformance with the Guidelines

Conclusion: Not achieving the Standard, not making significant progress towards. Livestock are not a causal factor to not achieving the Standard, failure to meet the standard is related to other issues or conditions.

Rangeland monitoring data (See Appendix I, Table 5-1) and professional observations indicate that vegetation structure, distribution, and production on the South Pancake Allotment are consistent with the Rangeland Ecological Site Descriptions (ESD) and/or expected plant community for the area. Vegetative structure is composed of varying age classes and heights of plants. Vegetation is distributed across the landscape as expected. Vegetative production is as expected for the allotment. Key area SP-1 has a current production of 673 pounds per acre (dry weight). The approximate production for this Silty site is 350 pounds per acre (dry weight) on an unfavorable year, 500 pounds per acre (dry weight) on a normal year, and 700 pounds per acre (dry weight) on a favorable year. Key area SP-2 has a current production of 469 pounds per acre (dry weight) and key area SP-4 has a current production of 746 pounds per acres (dry weight). The approximate production for these Shallow Calcareous Loam sites is 250 pounds per acre (dry weight) on an unfavorable year, 450 pounds per acre (dry weight) on a normal year, and 600 pounds per acre (dry weight) on a favorable year. These are indicators that the South Pancake Allotment is close to meeting the standard for habitat.

However on the South Pancake Allotment native vegetation composition differs from the ESD (Appendix I, Table 2.5-1). Percent vegetation composition by weight shows that shrubs are higher than what is expected while grasses are lower when compared to the historic climax plant community (HCPC) in the ESD. Key area SP-1 composition is trace grasses and 100 percent shrubs. Key area SP-2 composition is trace grasses, trace forbs, and 99 percent shrubs. Key area SP-4 composition is trace grasses, trace forbs, and 100 percent shrubs. However dominate species on the ground are the same as the dominate species in the ESD. This is further expressed by the similarity index for the area which is 52 percent for SP-1, 37 percent for SP-2, and 43 percent for SP-4. This shows that the vegetative components are present however differ in percent composition. Also halogeton was present at SP-1.

Utilization levels have been slight to moderate across the allotment for all herbivores (see Appendix I, Table 2.3-1) and livestock licensed use has been lower than allowable use levels

(see Appendix I, Table 2.2-1). This indicates that livestock are not a causal factor and not meeting the standard is related to other issues or conditions.

Sage Grouse

The greater sage-grouse (*Centrocercus urophasianus*) is a high-profile Sensitive Species currently undergoing review for Threatened or Endangered Status (USDI 2008). It has been identified as an "umbrella" species by the Ely District BLM, and chosen to represent the habitat needs of the sagebrush (*Artemisia* spp.) obligate or sagebrush/woodland dependent guild (BLM 2007; p. 4.7-10). The White Pine County sage-grouse conservation plan (hereafter termed the Plan; 2004) identified approximately 49% (950,773 ac) of potential (1,870,317 ac) sage-grouse habitat within the Butte/Buck/White Pine PMU as not meeting the sage-grouse habitat guideline standards (Connelly et al. 2000). In the sagebrush habitat rating system used in the Plan, one category, termed "R2", is defined as "Areas with inadequate grass/forb understory composition, adequate sagebrush cover". The Plan estimated approximately 708,000 acres of sagebrush habitat in this category throughout the PMU, which includes the South Pancake allotment. Based on the cover data collected for the South Pancake allotment, the sagebrush habitat communities at the key areas measured within the allotment fall under this category.

Key areas are sited in areas representative of livestock grazing on the major vegetation types throughout an allotment. Two of the four key areas within the South Pancake allotment are black sage/Indian ricegrass ecological sites, and are current or potential sage-grouse habitat. Under the sage-grouse guidelines, the herbaceous grass and forb component combined should comprise at least 15% of the vegetative community by cover, and sagebrush should comprise at least 15-25% of vegetative cover (Connelly et al. 2000). These sites are not meeting the herbaceous understory requirements set forth within the sage-grouse guidelines, as all grasses and forbs combined comprised only 4% and 2% cover at SP-02 and SP-04, respectively (Table 2.4-1). In addition, at SP-02 and SP-04, sagebrush cover was lower (15% and 10%, respectively) than recommended in the sage-grouse guidelines.

Site specific evaluation of sage-grouse habitat guidelines should be tempered with consideration of site potentials described in the ESD. Site potentials as described in the ESD for both key areas SP-02 and SP-04 are more than adequate to meet the sage-grouse habitat standards. Because the South Pancake allotment is not meeting the desired vegetative composition for Standard 3 or the guidelines for sage-grouse habitat, the allotment fails to meet the needs of the key "umbrella" species for sagebrush habitats identified in the Ely District Resource Management Plan (2008).

PART 2. ARE LIVESTOCK A CONTRIBUTING FACTOR TO NOT MEETING THE STANDARDS? SUMMARY REVIEW:

According to the Standards and Guidelines for Nevada's Northeastern Great Basin Area, it must be determined if livestock grazing is a significant factor in the non-attainment of the Standards and Guidelines (BLM 1997).

CORTA ALLOTMENT

Standard #1: Upland Sites
The Standard is being achieved.

Standard #2: Riparian and Wetlands
The Standard is not being achieved. During PFC assessments, livestock were not identified as a significant factor in reduced functionality of riparian areas on the Corta Allotment. However cattle and wild horse use was noted. Furthermore, licensed livestock use was well below the permitted use on the allotment and utilization levels were slight across the allotment.

Standard #3: Habitat
The Standard is being achieved.

SOUTH PANCAKE ALLOTMENT

Standard #1: Upland Sites
The Standard is being achieved.

Standard #2: Riparian and Wetlands
The Standard is not applicable

Standard #3: Habitat
The Standard is not being achieved. Livestock are not a significant factor to not achieving the Standard; failure to meet the standard is related to other issues or conditions. In addition to livestock grazing, wild horse and wildlife use, variable precipitation, and altered natural disturbance regimes occur on the South Pancake Allotment.

Non-attainment of this Standard is largely due to a grasses being in poor vigor, declining, or absent. Sheep grazing is not a significant contributing factor to these conditions because of the forage preference of sheep, which primarily forage on shrubs and especially black sagebrush. Also, as a result of this forage preference, sheep grazing will not harm the grasses but will allow for grass conditions to improve while sheep grazing occurs.

Furthermore, licensed sheep use has been lower than allowable levels over the past ten years and utilization has been slight to moderate which is within proper use levels across the allotment. This is a winter, sheep grazing allotment where grazing does not occur during most of the critical growing season. This further supports the conclusion that sheep grazing is not a significant contributing factoring to not meeting Standard 3.

PART 3. GUIDELINE CONFORMANCE REVIEW AND SUMMARY

Grazing is in conformance with all applicable Guidelines as provided in the Northeastern Great Basin Standards and Guidelines.

PART 4. MANAGEMENT PRACTICES TO CONFORM WITH GUIDELINES AND ACHIEVE STANDARDS

Recommendations:

1. Continue rangeland monitoring of this allotment for livestock in compliance with proper allowable use levels for the Corta and South Pancake Allotments

2. On the Corta Allotment, the season of use is recommended to be 05/01 to 05/31. This season of use is different from the current permit (05/01 to 05/04), however this is the correct season of use for the Corta Allotment from the 1999 Final Multiple Use Decision and Diamond Mountain Complex Evaluation that has been implemented since that decision. The 05/01 to 05/04 season of use was due to a clerical error in the processing of the current permit.

3. On the South Pancake Allotment, the season of use is recommended to remain 03/15 to 04/30 and 11/15 to 01/15.

4. On the Corta Allotment, the active AUMs are recommended to remain 128 AUMs

5. On the South Pancake Allotment, the active AUMs are recommended to remain 1155 AUMs

6. On the South Pancake Allotment, 438 sheep AUMs will be used east of Barrel Springs Road, by one band at a time, to be licensed separately as the "East Pasture." The remaining 716 sheep AUMs will be used and licensed west of Barrel Springs Road as the "West Pasture." Use on each half includes a ½ mile buffer strip on either side of the road and will serve as sheering sites for both bands.

7. On the South Pancake Allotment, four water haul sites will be located at the following location and will be at least ½ mile away from riparian areas, cultural sites, and special status species locations:
   - T18N R56E Section 34 SW1/4
   - T17N R56E Section 22 NE1/4
   - T16N R56E Section 10 NE1/4 (for winter use only)
   - T16N R56E Section 8 SW1/4

8. On the South Pancake Allotment, full use of the 716 AUMs in the West Pasture will be dependent on the use of water haul sites and the availability of snow.

9. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps will be a minimum of ½ mile from winterfat bottoms.

10. Salt and/or mineral supplements for livestock shall be located at least ½ mile from water sources, riparian areas, winterfat bottoms, sensitive sites, and cultural resource sites.

11. Maximum utilization levels on the Corta and South Pancake Allotments will be established as follows:
    - Perennial native grasses: 50% current year's growth
      This use level is necessary to allow desirable key herbaceous species to 1) develop above ground biomass for protection of soils, 2) to contribute to litter cover, and 3) develop roots to improve carbohydrate storage for vigor, reproduction, and improve/increase desirable perennial cover.
    - Perennial shrubs and half-shrubs: 50% use on current annual production.
      This use level is necessary to allow desirable perennial key browse species to develop branchlets and woody stature able to withstand the pressure of grazing use. Use would be read in April or prior to the spring re-growth. Use during spring contributes to following season's use level.
    - Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.

12. Use in the Corta Allotment will be in accordance with the Northeastern Great Basin Area Standards and Guidelines and the Final Multiple Use Decision (FMUD) issued December 6, 1999.

13. Use in the South Pancake Allotment will be in accordance with the Northeastern Great Basin Standards and Guidelines and the Final Multiple Use Decision (FMUD) issued April 1991.

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APPENDIX I
DATA SUMMARY

1. CORTA ALLOTMENT

1.1 Key Areas and Ecological Sites

A key area is a relatively small portion of a pasture or allotment selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the current grazing management over the pasture or allotment as a whole (NRCS 1997). Key areas represent range conditions, trends, seasonal degrees of use, and resource production and values. Table 1.1-1 depicts key areas and their location within the Corta Allotment as well as the ecological site associated with the key area in native rangeland and dominate soils of each site.

An ecological site is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation (NRCS 1997). Ecological Site Descriptions (ESD) are used for inventory, evaluation, and management of native vegetation communities. The ecological site of a key area is determined based on several factors including soils, topography, and plant community.

Table 1.1-1.Corta Allotment Key Areas

Key Area	Location	Ecological Site	Dominate Species of HCPC	Soil Mapping Unit
CO-1	T26N R55E S19 NW1/4 SW1/4	Loamy 8-10” P.Z. (028BY010NV)	Wyoming big sagebrush, Indian ricegrass, and needleandthread	RD—Ridit-Alpha association
CO-2	T26N R54E S25 SW1/4 NE1/4	Loamy 10-12” P.Z. (028BY007NV)	big sagebrush, Thurber’s needlegrass, and bluebunch wheatgrass	PeB—Pedoli gravelly fine sandy loam

1.2 Licensed Livestock Use

Over the grazing seasons from 1999 to 2008, livestock permitted use on the Corta Allotment for Paris Livestock was 128 AUMs in a sheep operation. During this same time period, livestock licensed use ranged from a high of 290 AUMs in 1999 to a low of 39 AUMs in 2006. Livestock use has varied dependent on available forage due to growing conditions. Table 1.2-1 summarizes the licensed use data for this time period.

Table 1.2-1.Corta Allotment Licensed Use.

Grazing Year	Total Licensed Use (AUMs)	% Licensed Use of Permitted Use (AUMs)	Grazing Year	Total Licensed Use (AUMs)	% Licensed Use of Permitted Use (AUMs)
1999	290	227%	2004	85	66%
2000	122	95%	2005	81	63%
2001	91	71%	2006	39	30%
2002	45	35%	2007	89	70%
2003	49	38%	2008	56	44%

1.3 Utilization

Utilization is the estimation of the proportion of annual production consumed or destroyed by animals (Swanson 2006). The general utilization objective for all allotments in the Ely BLM District according to the Ely District Record of Decision and Approved Resource Management Plan (ROD/RMP – August, 2008) is to "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health" (Ely RMP, p. 85). The Nevada Rangeland Monitoring Handbook gives guidelines to determine the proper use levels by plant category (grasses, forbs, and shrubs) and by grazing season (spring, summer, fall, winter, yearlong). Proper use levels for all allotments are also implied by the Standards and Guidelines for Rangeland Health and Grazing Administration (February 1997).

Key forage plant utilization method was used to collect utilization data at the key areas on the Corta Allotment. Generally, utilization has been slight. Utilization for the allotment is summarized in Table 1.3-1. Use by wild horses, rabbits, sheep, and cattle were noted.

Table 1.3-1.Corta Allotment Utilization

Key Area	Key Species	Month/Year	Utilization	Total
CO-1	Indian ricegrass	4/2005	slight	8%
		11/2005	slight	19%
	bluebunch wheatgrass	4/2005	slight	3%
		11/2005	slight	20%
	Sandberg's bluegrass	4/2005	slight	4%
		11/2005	slight	8%
	needleandthread	11/2005	slight	8%
	basin wildrye	11/2005	slight	15%
CO-2	Sandberg's bluegrass	4/2005	slight	6%
		11/2005	slight	15%
	Thurber's needlegrass	4/2005	slight	9%
		11/2005	slight	15%
	bottlebrush squirreltail	4/2005	slight	8%
		11/2005	slight	10%

1.4 Line Intercept Cover Studies

Canopy cover is the percent of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage, including small openings (Swanson 2006). The Line Intercept Method is a commonly used method of determining the relative percent live foliar or canopy cover of a range site by plant class (tree, shrub, grass, forb, or annual). The method also estimates the percent live foliar cover by plant species. The results are then compared to the appropriate cover for each ecological site as indicated by the Natural Resources Conservation Service (NRCS) Rangeland Ecological Site Descriptions. Results are also compared to general known healthy rangelands.

Line intercept cover studies have been conducted at the two key areas on the Corta Allotment in 2006 to find shrub canopy cover. Table 1.4-1 summarizes the cover data collected.

Table 1.4-1.Corta Allotment Vegetation Cover.

Key Area	Range Site	2006 Cover (%)	ESD Approx. Cover (%)
CO-1	Loamy 8-10" P.Z. (028BY010NV)	10%	10-20%
CO-2	Loamy 10-12" P.Z. (028BY007NV)	26%	20-30%

1.5 Proper Functioning Condition of Riparian Areas

Proper Functioning Condition (PFC) is the method used by the BLM to assess riparian health and functionality. The process is completed by an interdisciplinary (ID) team. The team looks at hydrology, vegetation, and erosion/deposition characteristics of the site in order to determine if the riparian area is in proper functioning condition, functioning at risk, or nonfunctional.

PFC was completed on two unnamed springs on the Corta Allotment. Table 1.5-1 summarizes the findings of the ID teams.

Table 1.5-1.PFC on the Corta Allotment

Riparian Area	Date	Functionality
Eastern Unnamed Spring	12/5/2008	Functional At-Risk; Trend Not Apparent
Western Unnamed Spring	12/5/2008	N/A; the spring has no riparian area

1.6 Vegetation Composition

While species composition was not quantified, species presence was noted at both key areas in 2005 and 2006. This information is compared with the ESD species in Table 1.6-1 and Table 1.6-2.

Table 1.6-1.Species Occurrence at CO-1

Plant Species	ESD	2005 Field Notes	2006 Field Notes
Indian ricegrass	X	X	X
needleandthread	X	X	X
bottlebrush squirreltail	X		X
Sandberg's bluegrass	X	X	X
other perennial grasses	X	X	X
globemallow	X		
other perennial forbs	X	X	X
Wyoming big sagebrush	X	X	X
Douglas' rabbitbrush	X	X	X
other perennial shrubs	X	X	

Table 1.6-2.Species Occurrence at CO-2

Plant Species	ESD	2005 Field Notes	2006 Field Notes
Thurber's needlegrass	X	X	X
bluebunch wheatgrass	X		
needleandthread	X		
Indian ricegrass	X	X	
bluegrass	X	X	X
other perennial grasses	X	X	X
tapertip hawksbeard	X		
arrowleaf balsamroot	X		
other perennial forbs	X	X	X
big sagebrush	X	X	X
antelope bitterbrush	X		
other shrubs and trees	X	X	X

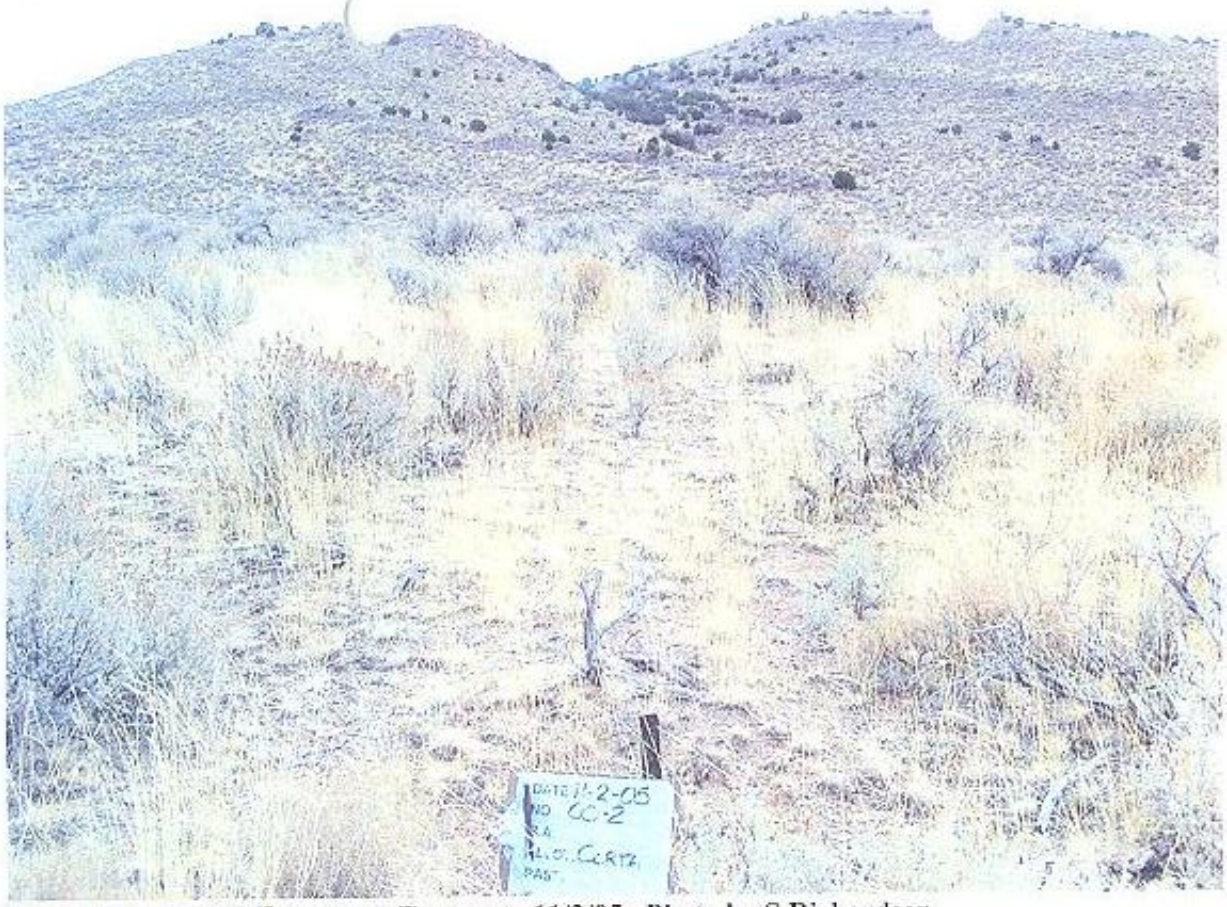
1.7 Monitoring Photos

2005 Utilization

Corta 1

Key Area: Corta 1 Witness Post #2. 11/2/05. Photo by S. Richardson.

Corta 2



Key Area: Corta 2 Frequency Transect. 11/2/05. Photo by S Richardson.

2. SOUTH PANCAKE ALLOTMENT

2.1 Key Areas and Ecological Sites

A key area is a relatively small portion of a pasture or allotment selected because of its location, use, or grazing value as a monitoring point for grazing use. It is assumed that key areas, if properly selected, will reflect the current grazing management over the pasture or allotment as a whole (NRCS 1997). Key areas represent range conditions, trends, seasonal degrees of use, and resource production and values. Table 2.1-1 depicts key areas and their location within the South Pancake Allotment as well as the ecological site associated with the key area in native rangeland and dominate soils of each site.

An ecological site is a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation (NRCS 1997). Ecological Site Descriptions (ESD) are used for inventory, evaluation, and

management of native vegetation communities. The ecological site of a key area is determined based on several factors including soils, topography, and plant community.

Table 2.1-1.South Pancake Allotment Key Areas

Key Area	Pasture	Location	Ecological Site	Dominate Species of HCPC	Soil Mapping Unit
SP-1	East	T17N R56E S11	Silty 8-10" P.Z. (028BY013NV)	winterfat and Indian ricegrass	232—Linoyer-Heist-Tulase association
SP-2	West	T17N R56E S15 SW1/4 NE1/4	Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)	black sagebrush, Indian ricegrass, and needleandthread	282—Palinor very gravelly loam
SP-3	East	T17N R56E S14 NE/4 SE1/4	Coarse Silty 6-8" P.Z. (028BY084NV)	winterfat and Indian ricegrass	286—Palinor-Shabliss association
SP-4	West	T17N R56E S34 SW1/4 SW1/4	Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)	black sagebrush, Indian ricegrass, and needleandthread	286—Palinor-Shabliss association

2.2 Licensed Livestock Use

Over the grazing seasons from 1999 to 2008, livestock permitted use on the South Pancake Allotment for Paris Livestock was 1,155 AUMs in a sheep operation. During this same time period, livestock licensed use ranged from a high of 1,099 AUMs in 2007 to a low of 175 AUMs in 2001. Livestock use has varied dependent on available forage due to growing conditions. Table 2.2-1 summarizes the licensed use data for this time period.

Table 2.2-1.South Pancake Allotment Licensed Use.

Grazing Year	Total Licensed Use (AUMs)	% Licensed Use of Permitted Use (AUMs)	Grazing Year	Total Licensed Use (AUMs)	% Licensed Use of Permitted Use (AUMs)
1999	784	68%	2004	682	59%
2000	858	74%	2005	911	79%
2001	175	15%	2006	828	72%
2002	762	66%	2007	1099	95%
2003	393	34%	2008	306	26%

2.3 Utilization

Utilization is the estimation of the proportion of annual production consumed or destroyed by animals (Swanson 2006). The general utilization objective for all allotments in the Ely BLM District according to the Ely District Record of Decision and Approved Resource Management Plan (ROD/RMP – August, 2008) is to "Manage livestock grazing on public lands to provide for a level of livestock grazing consistent with multiple use, sustained yield, and watershed function and health" (Ely RMP, p. 85). The Nevada Rangeland Monitoring Handbook gives guidelines to determine the proper use levels by plant category (grasses, forbs, and shrubs) and by grazing season (spring, summer, fall, winter, yearlong). Proper use levels for all allotments are also

implied by the Standards and Guidelines for Rangeland Health and Grazing Administration (February 1997).

Key forage plant utilization method was used to collect utilization data at the key areas as well as one other location on the South Pancake Allotment. Generally utilization has been slight to moderate. Utilization for the allotment is summarized in Table 2.3-1. Use by wild horses, rabbits, sheep, and antelope were noted.

Table 2.3-1.South Pancake Allotment Utilization

Key Area	Key Species	Grazing Year	Utilization	Total
SP-1	winterfat	2008	moderate	44%
		2003	slight	16%
	bottlebrush squirreltail	2008	moderate	46%
		2003	slight	5%
	Indian ricegrass	2003	slight	12%
SP-2	Sandberg's bluegrass	2008	slight	11%
	winterfat	2003	slight	5%
		2008	slight	3%
	Indian ricegrass	2003	slight	4%
		2008	slight	3%
	black sagebrush	2003	slight	12%
SP-3	winterfat	2008	light	40%
SP-4	winterfat	2008	moderate	41%
		2003	light	23%
	Indian ricegrass	2008	moderate	41%
		2003	slight	5%
	black sagebrush	2003	slight	6%
1	Indian ricegrass	2008	light	16%

2.4 Line Intercept Cover Studies

Canopy cover is the percent of ground covered by a vertical projection of the outermost perimeter of the natural spread of foliage, including small openings (Swanson 2006). The Line Intercept Method is a commonly used method of determining the relative percent live foliar or canopy cover of a range site by plant class (tree, shrub, grass, forb, or annual). The method also estimates the percent live foliar cover by plant species. The results are then compared to the appropriate cover for each ecological site as indicated by the Natural Resources Conservation Service (NRCS) Rangeland Ecological Site Descriptions. Results are also compared to general known healthy rangelands.

Line intercept cover studies have been conducted at the four key areas on the South Pancake Allotment. Table 2.4-1 summarizes the cover data collected.

Table 2.4-1.South Pancake Allotment Cover Data

Key Area	Ecological Site	ESD Approx. Vegetative Cover (%)	Vegetation	2008 Cover (%)
SP-1	Silty 8-10" P.Z. (028BY013NV)	10-20%	bottlebrush squirreltail	<1%
			halogeton	<1%
			winterfat	7%
			Total Vegetative	**8%**
			litter	4%
SP-2	Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)	15-20%	Indian ricegrass	1%
			Sandberg's bluegrass	3%
			bottlebrush squirreltail	<1%
			phlox	1%
			black sagebrush	11%
			Douglas' rabbitbrush	17%
			Wyoming big sagebrush	4%
			winterfat	<1%
			Total Vegetative	**37%**
			litter	2%
SP-3	Coarse Silty 6-8" P.Z. (028BY084NV)	10-20%	winterfat	7%
			Total Vegetative	**7%**
			litter	1%
SP-4	Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)	15-20%	Indian ricegrass	1%
			phlox	1%
			winterfat	1%
			black sagebrush	10%
			Douglas' rabbitbrush	<1%
			Total Vegetative	**13%**
			litter	9%

2.5 Similarity Index of Ecological Site Inventory

A similarity index is the percentage of a specific vegetation state plant community that is presently on the site (NRCS 1997). Similarity index is usually computed in reference to the historic climax plant community (HCPC) and is an expression of how similar the existing plant community is to HCPC. Also note that HCPC is not always the most desirable plant community to manage for.

When the similarity index is computed, a seral stage can be derived. Seral stages are the developmental stages of an ecological succession (NRCS 1997). A similarity index of 0 to 25 percent represents an early seral plant community, 26 to 50 percent represents a mid-seral plant community, 51 to 75 percent represents a late seral plant community, and 76 to 100 percent represents a climax plant community.

Similarity index is calculated as a percent composition by air dry weight. The site is inventoried to determine the current percent composition by weight on an air dry basis. These numbers are

then compared to the percent composition by weight on an air dry basis of the HCPC in the Rangeland Ecological Site Description for the site. To calculate the similarity index, current composition cannot exceed that of HCPC. This yields percent allowable. The sum of all allowable percentages equals the similarity index.

Table 2.5-1 summarizes data used to calculate similarity index for the South Pancake Allotment.

Table 2.5-1.Total Annual Yield and Composition of South Pancake Allotment Key Areas

Key Area: SP-01
Date: 7/2/2008
Range Site: Silty 8-10" P.Z. (028BY013NV)

Plant Common Name	Plant symbol	Current % Composition by Weight (air dry)	HCPC % Composition by Weight (air dry)*	% Allowable
bottlebrush squirreltail	ELEL5	trace	5-10%	---
halogeton	HAGL	trace	---	---
winterfat	KRLA2	63%	40-50%	50%
Wyoming big sagebrush	ARTRW	37%	2%	2%

Similarity Index: 52%; late seral stage (2003: 53%; late seral stage)
Overall Production: 673 pounds per acre (air dry wt.); (2003: 624 pounds per acre)
Plant community dynamics: As ecological condition declines, bottlebrush squirreltail and shadscale increase as winterfat and Indian ricegrass decrease. With further site deterioration, cheatgrass, halogeton and annual mustards invade the interspace areas between shrub species. On heavily disturbed sites, these annual species, particularly halogeton, become dominant. Soils of this site are easily eroded and gullies often form, interrupting the overland flow patterns. As gullies begin to form, this site grades into the Silty Plain (028BY054NV) or Loamy Fan 8-12" PZ (028BY045NV) site.
*from Ecological Site Description

Table 2.5-1.Total Annual Yield and Composition of South Pancake Allotment Key Areas (con't)

Key Area: SP-2
Date: 07/10/2008
Range Site: Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)

Plant Common Name	Plant symbol	Current % Composition by Weight (air dry)	HCPC % Composition by Weight (air dry)*	% Allowable
Indian ricegrass	ACHY	trace	20-35%	---
bottlebrush squirreltail	ELEL5	trace	2-5%	---
Sandberg's bluegrass	POSE	trace	2-8%	---
phlox	PHLOX	trace	2%	---
black sagebrush	ARNO4	29%	25-35%	29%
Douglas' rabbitbrush	CHVI8	61%	2-5%	5%
winterfat	KRLA2	9%	3%	3%

Similarity Index: 37%; mid seral stage (2003: 51%; late seral stage)
Overall Production: 469 pounds per acre (air dry wt.); (2003: 552 pounds per acre)
Plant community dynamics: As ecological condition declines, black sagebrush, rabbitbrush and shadscale increase, while perennial grass, palatable shrubs and forbs decrease. Cheatgrass and halogeton are species likely to invade on this site. Rodent activity is typically evidenced by small patches dominated by spiny hopsage. Utah juniper readily invades this site where it occurs adjacent to these woodlands. When Utah juniper occupies this site, it competes with other species for available light, moisture and nutrients. If tree canopies are allowed to close, they can eliminate all understory vegetation.
*from Ecological Site Description

Table 2.5-1.Total Annual Yield and Composition of South Pancake Allotment Key Areas (con't)

Key Area: SP-4
Date: 07/2/2008
Range Site: Shallow Calcareous Loam 8-10" P.Z. (028BY011NV)

Plant Common Name	Plant symbol	Current % Composition by Weight (air dry)	HCPC % Composition by Weight (air dry)*	% Allowable
Indian ricegrass	ACHY	trace	20-35%	---
phlox	PHLOX	trace	2%	---
black sagebrush	ARNO4	72%	25-35%	35%
Douglas' rabbitbrush	CHVI8	15%	2-5%	5%
winterfat	KRLA2	13%	3%	3%

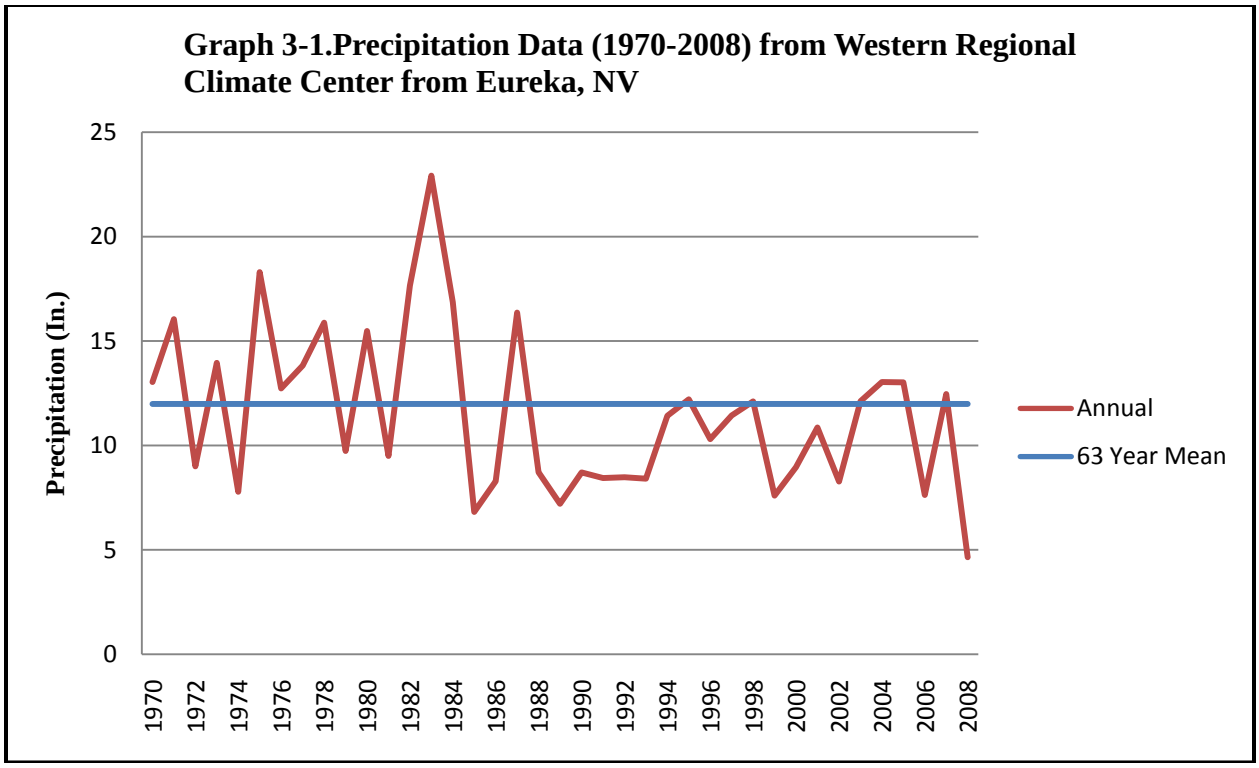
Similarity Index: 43%; mid seral stage (2003: 74%; late seral stage)
Overall Production: 746 pounds per acre (air dry wt.); (2003: 621 pounds per acre)
Plant community dynamics: As ecological condition declines, black sagebrush, rabbitbrush and shadscale increase, while perennial grass, palatable shrubs and forbs decrease. Cheatgrass and halogeton are species likely to invade on this site. Rodent activity is typically evidenced by small patches dominated by spiny hopsage. Utah juniper readily invades this site where it occurs adjacent to these woodlands. When Utah juniper occupies this site, it competes with other species for available light, moisture and nutrients. If tree canopies are allowed to close, they can eliminate all understory vegetation.
*from Ecological Site Description

3. PRECIPITATION DATA

Annual precipitation greatly influences growing condition of forage species and is often correlated to available forage. Historical climate data from the Western Regional Climate Center at the Eureka, Nevada weather station is being used as to represent the annual precipitation on the Corta and South Pancake Allotments. Table 3-1 and Graph 3-1 summarize annual precipitation data collected since 1970. The 63 year mean precipitation for this station is 11.99 inches.

Table 3-1.Western Regional Climate Center Precipitation Data from Eureka, NV

YEAR	ANNUAL PRECIP. (inches)	YEAR	ANNUAL PRECIP. (inches)	YEAR	ANNUAL PRECIP. (inches)
1970	13.04	1983	22.92	1996	10.30
1971	16.05	1984	16.86	1997	11.44
1972	9.00	1985	6.82	1998	12.11
1973	13.96	1986	8.29	1999	7.60
1974	7.78	1987	16.36	2000	8.96
1975	18.30	1988	8.72	2001	10.86
1976	12.73	1989	7.21	2002	8.27
1977	13.83	1990	8.71	2003	12.12
1978	15.88	1991	8.44	2004	13.04
1979	9.74	1992	8.48	2005	13.02
1980	15.48	1993	8.41	2006	7.63
1981	9.50	1994	11.42	2007	12.46
1982	17.66	1995	12.21	2008	4.65


Graph 3-1.Precipitation Data (1970-2008) from Western Regional Climate Center from Eureka, NV
Precipitation (In.)
25
20
15
10
5
0
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Annual
63 Year Mean

APPENDIX II
MAPS

Figure 1. Corta Allotment Map

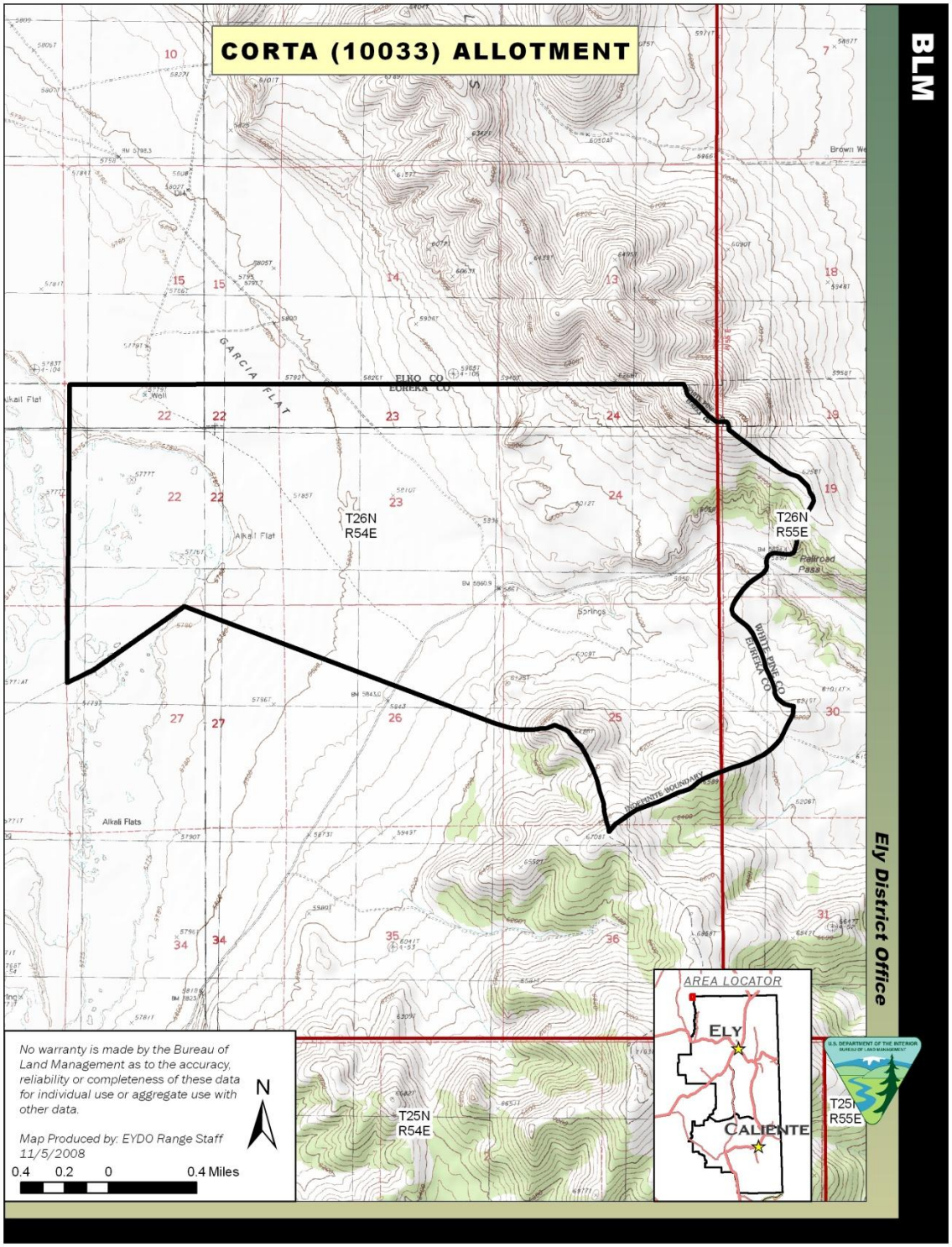


Figure 2. Corta Allotment Key Areas

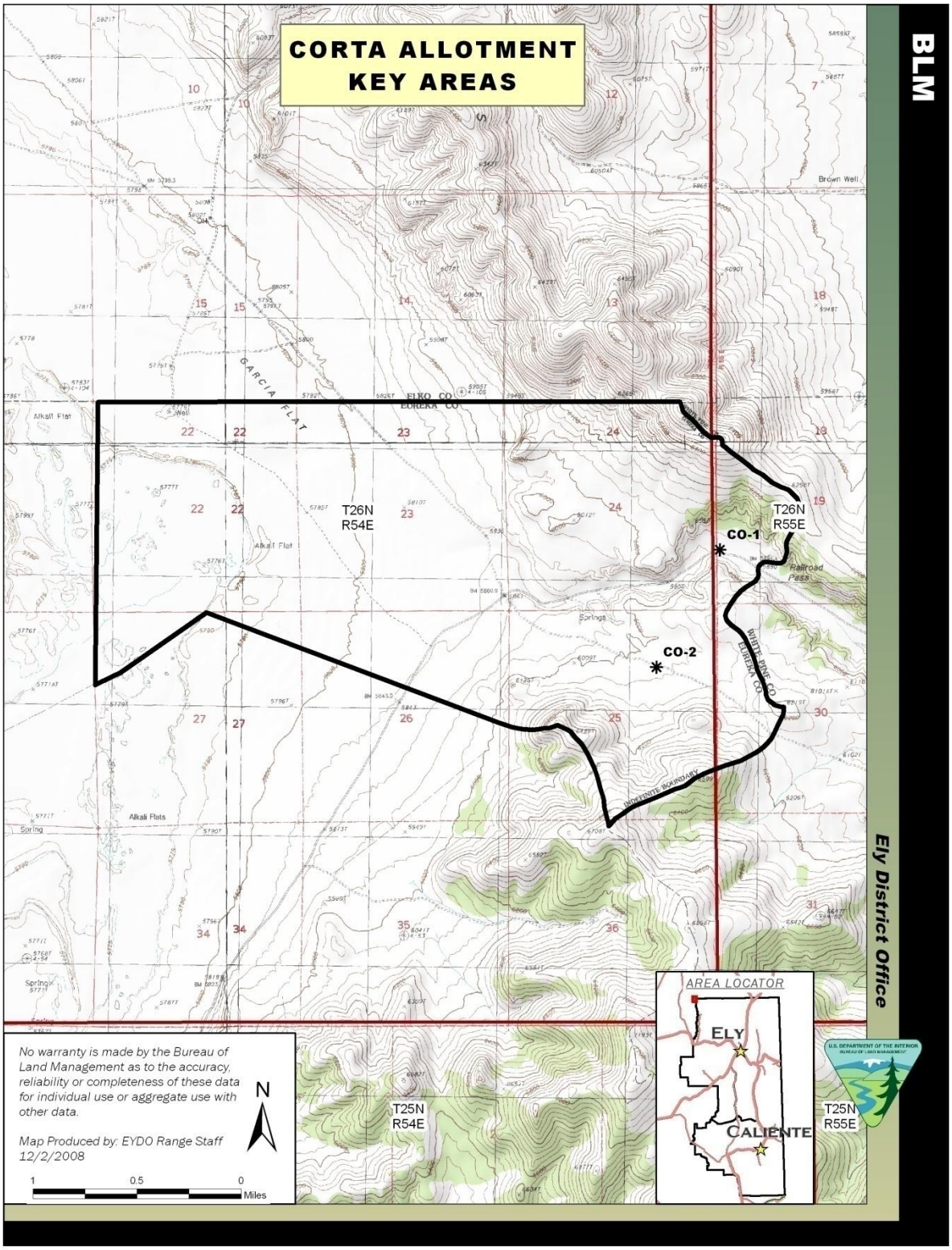


Figure 3. Corta Allotment Spring Sources

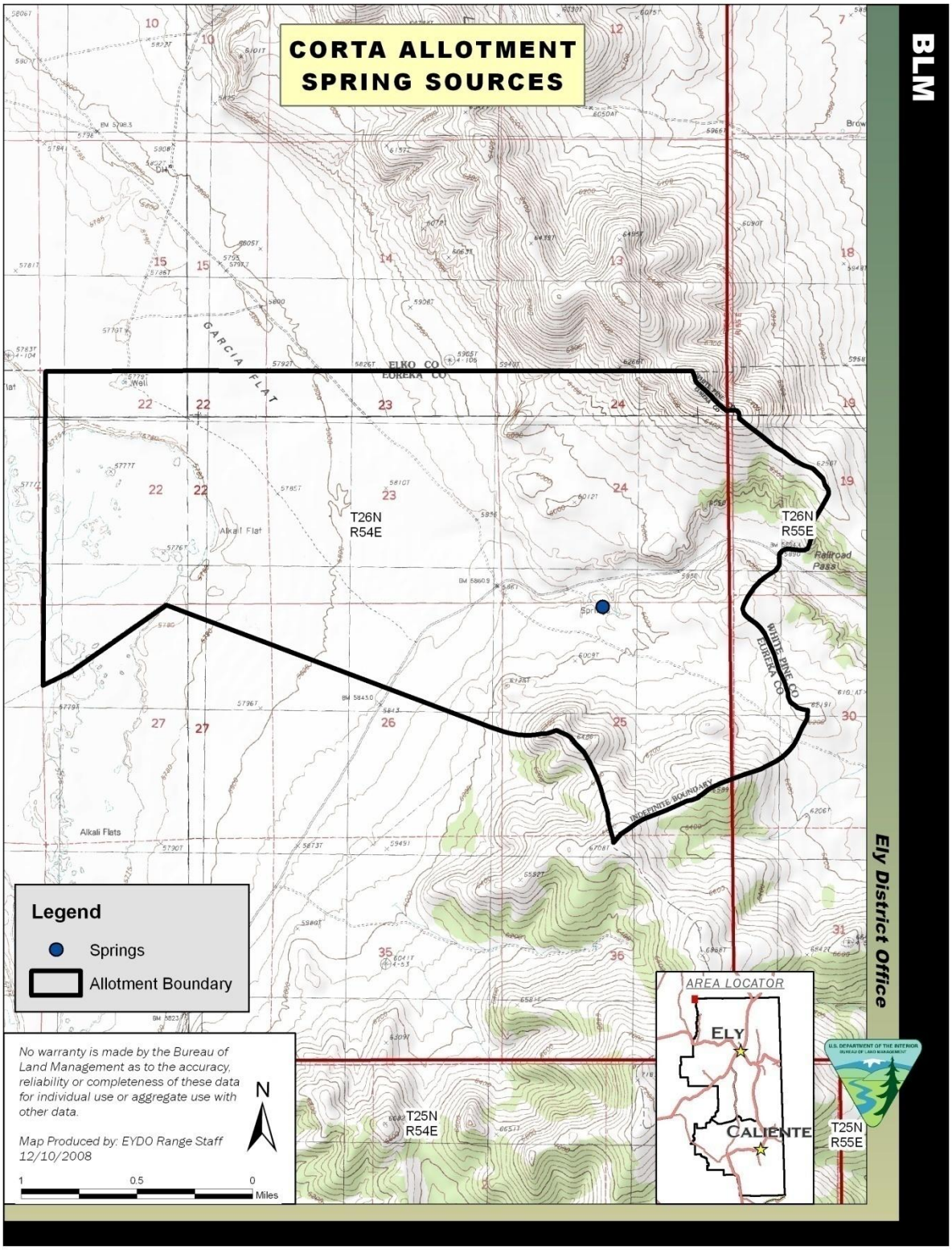


Figure 4. South Pancake Allotment Map

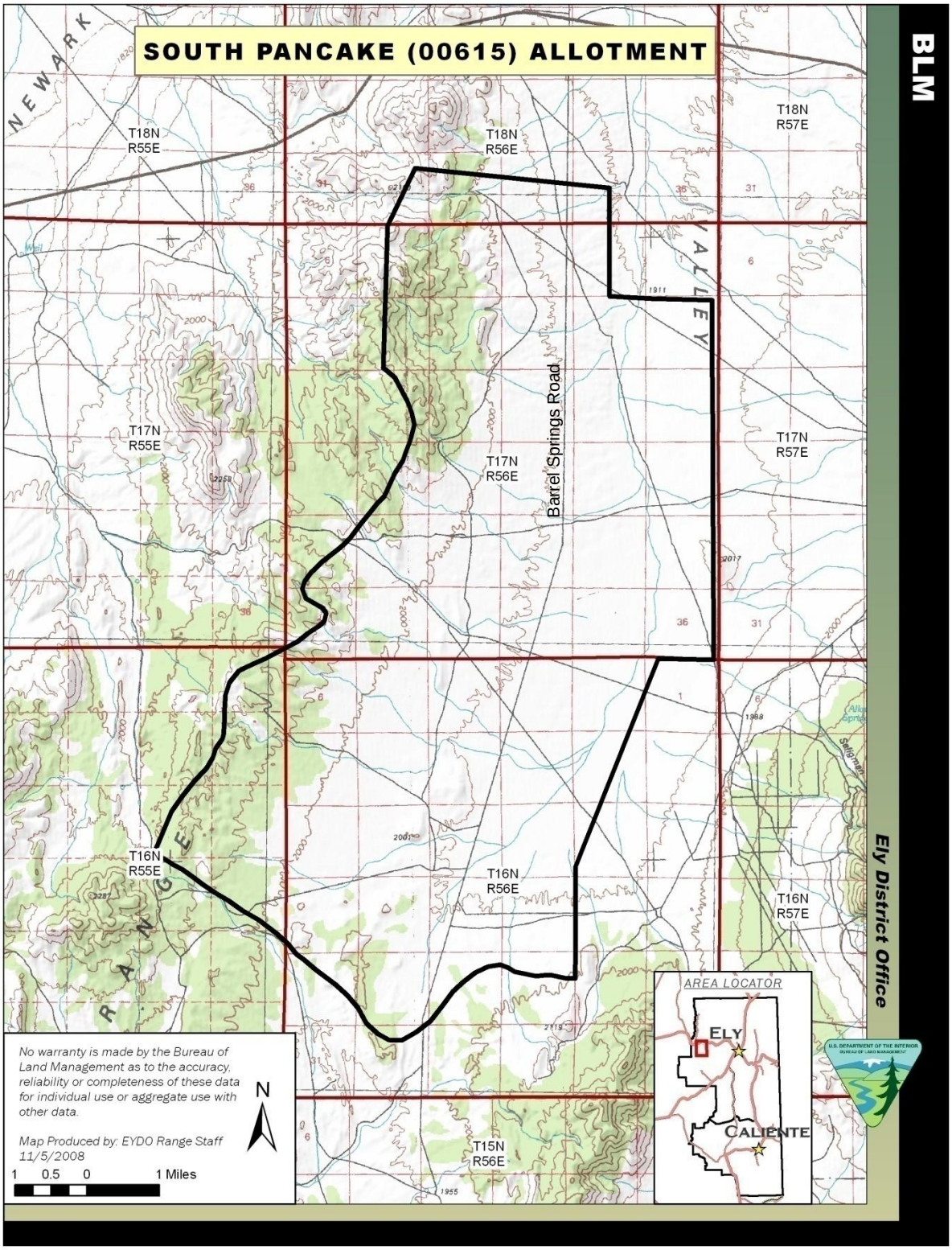
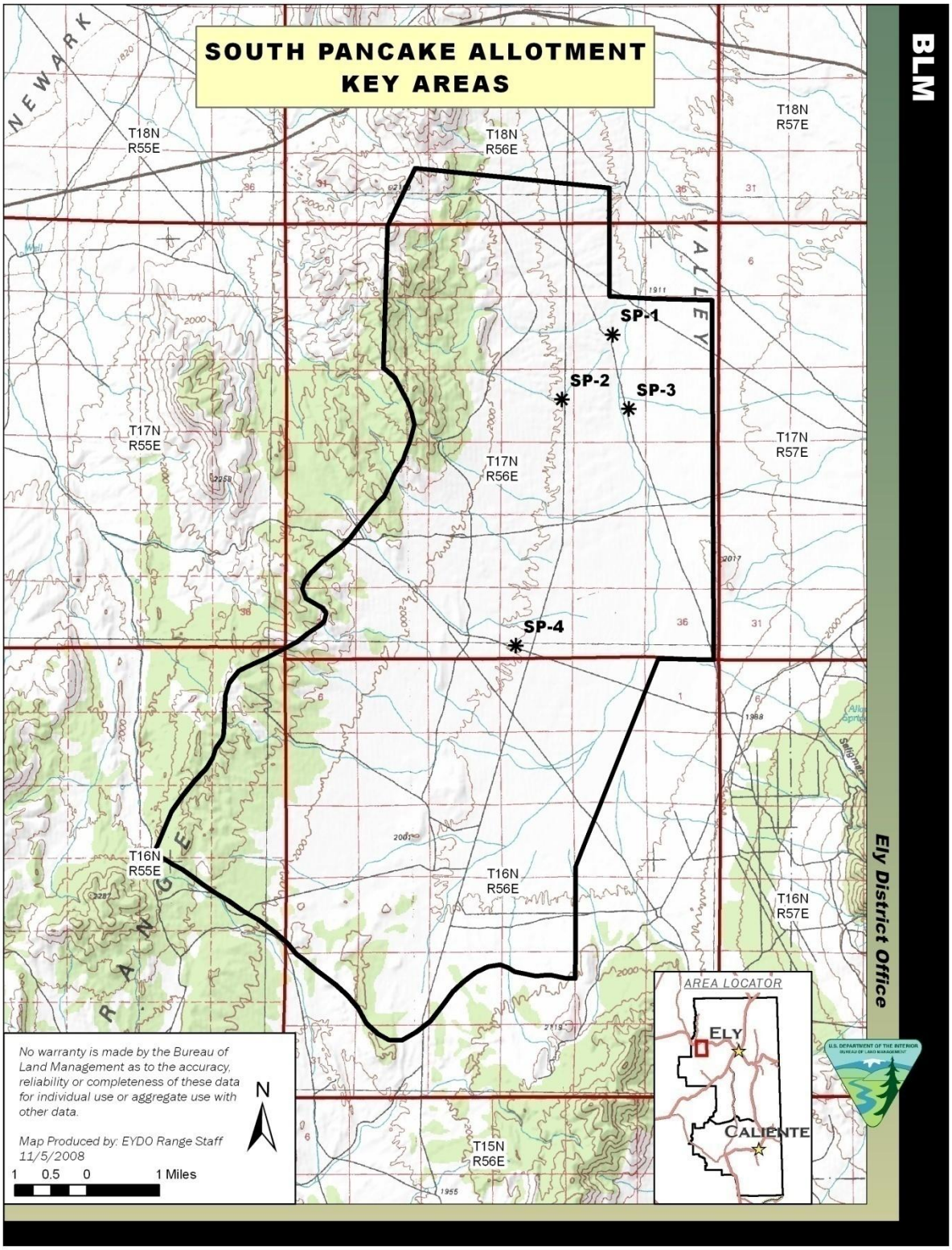


Figure 5. South Pancake Key Areas



APPENDIX III
TERMS AND CONDITIONS
Corta and South Pancake Allotments

Allotment Name and Number	Livestock Number/Kind	Grazing Period Begin End	% Public Land*	Type Use	AUMs**
Corta 10033	640 Sheep	05/01 to 05/31	100	Active	128
South Pancake 00615	2268 Sheep	03/15 to 04/30	100	Active	701
South Pancake 00615	1114 Sheep	11/15 to 01/15	100	Active	454

*% Public Land is the percent of public land for billing purposes.
**AUMs may differ from Active Permitted Use due to a rounding difference with the number of livestock and the period of use.

Allotment AUMs Summary

Allotment Name	ACTIVE AUMS	SUSPENDED AUMS	GRAZING PERMITTED USE
Corta	128	72	200
South Pancake	1155	0	1155

Livestock Management Practices - Terms and Conditions
In accordance with 43 CFR §4130.3 and §4130.3-2 the following terms and conditions shall be included in the term grazing permit for Paris Livestock for the Corta and South Pancake Allotments:

Corta Allotment (10033):

1. Grazing in the Corta Allotment will be in accordance with the Northeastern Great Basin Area Standards and Guidelines and the Final Multiple Use Decision dated December 6, 1999.
2. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water sources, riparian areas, winterfat bottoms, sensitive sites, and cultural resource sites.
3. Maximum allowable use levels will be established as follows:
    a. Perennial native grasses: 50% current year's growth
    b. Perennial shrubs and half-shrubs: 50% use on current annual production.
    c. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.

South Pancake Allotment (00615):

1. Grazing in the South Pancake Allotment will be in accordance with the Northeastern Great Basin Area Standards and Guidelines, and the Final Multiple Use Decision dated April 1991.
2. On the South Pancake Allotment, 438 sheep AUMs will be used east of Barrel Springs Road, by one band at a time, to be licensed separately as the "East Pasture." The remaining 716 sheep AUMs will be used and licensed west of Barrel Springs Road as the "West Pasture." Use on each half includes a ½ mile buffer strip on either side of the road and will serve as sheering sites for both bands.
3. On the South Pancake Allotment, four water haul sites will be located at the following location and will be at least ½ mile away from riparian areas, cultural sites, and special status species locations:
   - T18N R56E Section 34 SW1/4
   - T17N R56E Section 22 NE1/4
   - T16N R56E Section 10 NE1/4 (for winter use only)
   - T16N R56E Section 8 SW1/4
4. On the South Pancake Allotment, full use of the 716 AUMs in the West Pasture will be dependent on the use of water haul sites and the availability of snow.
5. Sheep will not be trailed or bedded in winterfat bottoms. Sheep camps will be a minimum of ½ mile from winterfat bottoms.
6. To improve livestock distribution the placement of mineral blocks or salt blocks will be a minimum distance of ½ mile from water sources, riparian areas, winterfat bottoms, sensitive sites, and cultural resource sites.
7. Maximum allowable use levels will be established as follows:
   a. Perennial native grasses: 50% current year's growth
   b. Perennial shrubs and half-shrubs: 50% use on current annual production.
   c. Livestock will be moved to another authorized pasture or removed from the allotment before utilization objectives are met or no later than 5 days after meeting the utilization objectives. Any deviation in livestock movement will require authorization from the authorized officer.

Additional Stipulations Common to All Grazing Allotments:

1. Livestock numbers identified in the Term Grazing Permit are a function of seasons of use and permitted use. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis where such deviations would not prevent attainment of the multiple-use objectives for the allotment.
2. Deviations from specified grazing use dates will be allowed when consistent with multiple-use objectives. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.
3. The authorized officer is requiring that an actual use report (form 4130-5) be submitted within 15 days after completing your annual grazing use.
4. The payment of your grazing fees is due on or before the date specified in the grazing bill. This date is generally the opening date of your allotment. If payment is not received within 15 days of the due date, you will be charged a late fee assessment of $25 or 10 percent of the grazing bill, whichever is greater, not to exceed $250. Payment with Visa,

MasterCard or American Express is accepted. Failure to make payment within 30 days of the due date may result in trespass action.

5. Pursuant to 43 CFR 10.4 (G) the holder of this authorization must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). Further, pursuant to 43 CFR 10.4 (C) and (D), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.
6. Grazing use in White Pine County will be in accordance with the Northeastern Great Basin Area Standards and Guidelines for Grazing Administration. The Standards and Guidelines have been developed by the respective Resource Advisory Council and approved by the Secretary of the Interior on February 12, 1997. Grazing use will also be in accordance with 43 CFR Subpart 4180 - Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration.
7. If future monitoring data indicates that Standards and Guidelines for Grazing Administration are not being met, the permit will be reissued subject to revised terms and conditions.
8. The permittee is responsible for all maintenance of assigned range improvements including wildlife escape ramps for both permanent and temporary water troughs.
9. The permittee must notify the authorized officer by telephone, with written confirmation, immediately upon discovery of any hazardous or solid wastes as defined in 40 CFR Part 261.

APPENDIX IV

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Paris Livestock
Cold Creek, Corta, Duckwater, Newark, Railroad Pass, Sand Springs, South Pancake, & Warm Springs Trail Allotments
Nye & White Pine County, Nevada

On November 6th, 2008 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for Paris Livestock for the Cold Creek, Corta, Duckwater, Newark, Railroad Pass, Sand Springs, South Pancake, and Warm Springs Trail Allotments in Nye and White Pine Counties, NV. The current term permit is issued for the period 10/15/2006 to 10/14/2016. The following table outlines what the current term permit authorizes.

Allotment/Pasture	Number & Kind of Livestock	Use Period	AUMS
Sand Springs	934 Sheep	11/01 to 03/31	927
	1198 Sheep	11/01 to 03/31	1190
Railroad Pass	467 Sheep	04/05 to 11/15	691
Cold Creek	1182 Sheep	04/15 to 4/30	124
	1200 Sheep	11/01 to 11/15	118
Newark	1642 Sheep	04/01 to 04/30	324
	1642 Sheep	11/01 to 11/30	324
South Pancake	2268 Sheep	03/15 to 04/30	701
	1114 Sheep	11/15 to 01/15	454
Warm Springs Trail	2750 Sheep	04/15 to 05/01	307
	2754 Sheep	11/15 to 12/01	308
Duckwater	1572 Sheep	12/15 to 03/31	1106
	1122 Sheep	01/01 to 03/31	664
Corta	4850 Sheep	05/01 to 05/04	128
Railroad Pass/Corta Seeding	365 Sheep	04/05 to 11/15	540

Within the Duckwater Allotment the following use areas would be used: Bull Corner/Poison Patch, Little Smokey Valley, North Sand Springs Valley, Pancake East Bench/Duckwater Valley, Pogues Station, and South Sand Springs Valley. The issuance of the new term grazing permit could be for a period up to ten years. An evaluation of the range monitoring data and rangeland health will be conducted for the Cold Creek, Corta, Duckwater, Newark, Railroad Pass, Sand Springs, South Pancake, and Warm Springs Trail Allotments.

No field weed surveys were completed for this project. Instead the Ely District weed inventory data was consulted. The following species are found within the boundaries of the Cold Creek Allotment:

Carduus nutans	Musk thistle
Cirsium vulgare	Bull thistle
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle

The following species are found within the boundaries of the use areas for this permit in the Duckwater Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Cirsium vulgare	Bull thistle
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

The following species are found within the boundaries of the Newark Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

The following species are found within the boundaries of the Railroad Pass Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cicuta maculata	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Euphorbia esula	Leafy spurge
Lepidium draba	Hoary cress
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

The following species is found within the boundaries of the South Pancake Allotment:

Lepidium draba	Hoary cress

The following species are found along the Warm Springs Trail Allotment:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress

The following species are found along roads and drainages leading to all allotments:

Acroptilon repens	Russian knapweed
Carduus nutans	Musk thistle
Centaurea stoebe	Spotted knapweed
Cicuta maculate	Water hemlock
Cirsium arvense	Canada thistle
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Euphorbia esula	Leafy spurge
Hyoscyamus niger	Black henbane
Lepidium draba	Hoary cress
Lepidium latifolium	Tall whitetop
Onopordum acanthium	Scotch thistle
Tamarix spp.	Salt cedar

These areas were last inventoried for noxious weeds in 2002, 2003 and 2005. It should be noted that these allotments border the BLM Battle Mountain or Elko Districts or, in the case of the Corta and Sand Springs Allotments, are entirely within them. No weed inventory data for these Districts is currently available. While not officially documented the following non-native invasive weeds probably occur in or around both allotments: cheatgrass (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), Russian olive (*Elaeagnus angustifolia*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. The proposed action could increase the populations of the noxious and invasive weeds already within the allotments and could aid in the introduction of weeds from surrounding areas. Within the allotments, watering and salt block sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with that.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (7) at the present time. If new weed infestations establish within the allotments this could have an adverse impact those native plant communities however, since there are many weed infestations currently within the allotments, those impacts would be limited. Also, any increase of cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

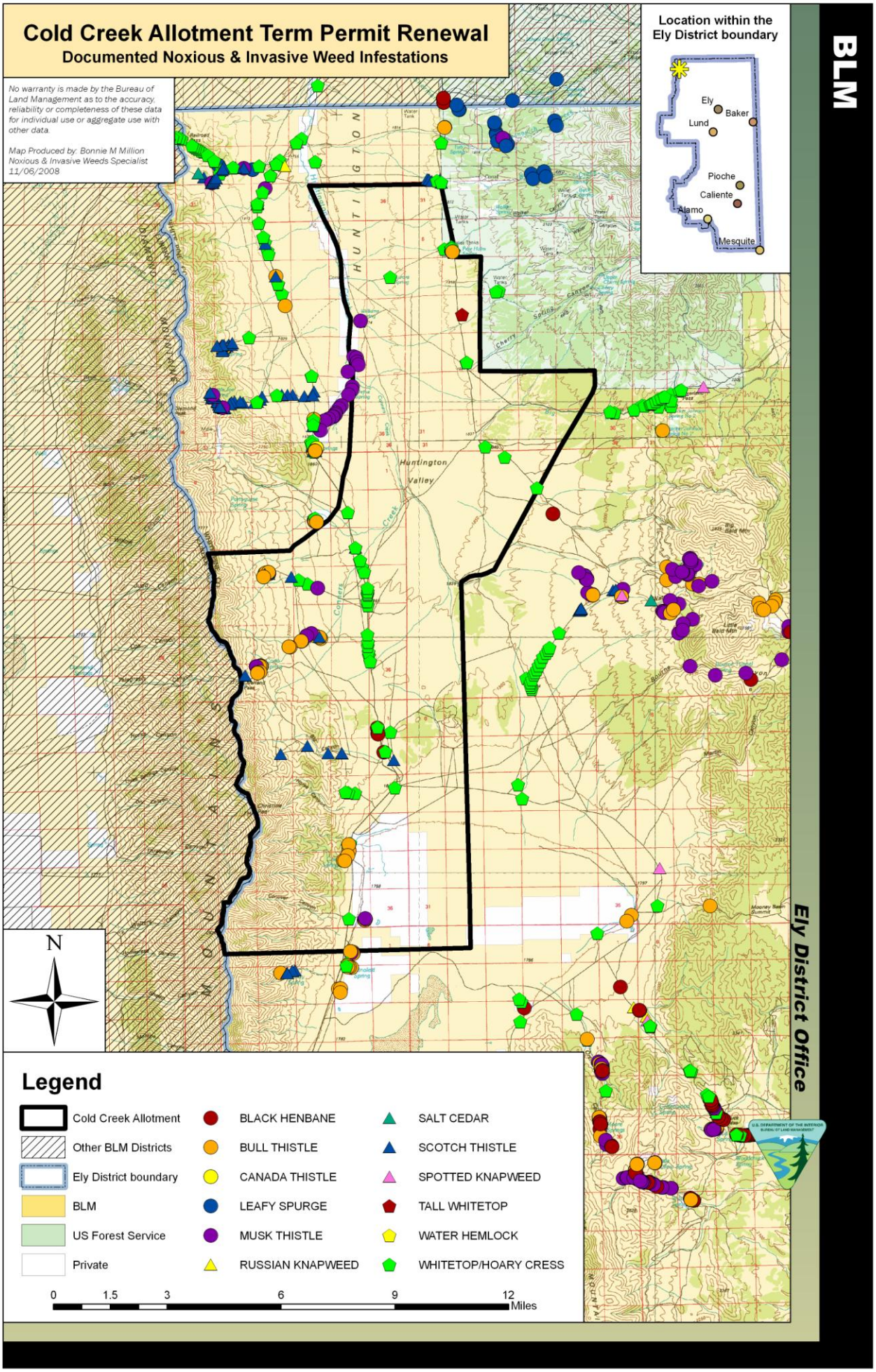
For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for feed or bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM Ely District Office.
- Prior to entering public lands, the BLM will provide information regarding noxious weed management and identification to the permit holders affiliated with the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- The range specialist for the allotments will include weed detection into project compliance inspection activities. If the spread of noxious weeds is noted, appropriated weed control procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.
- Grazing will be conducted in compliance with the Ely District BLM noxious weed schedules. The scheduled procedures can significantly and effectively reduce noxious weed spread or introduction into the project area.
- Control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.

- Any newly established populations of noxious/invasive weeds discovered will be communicated to the Ely District Noxious and Invasive Weeds Coordinator for treatment.

Reviewed by: _____ 11/6/2008

Bonnie M. Million Date
Ely District Noxious & Invasive Weeds Coordinator

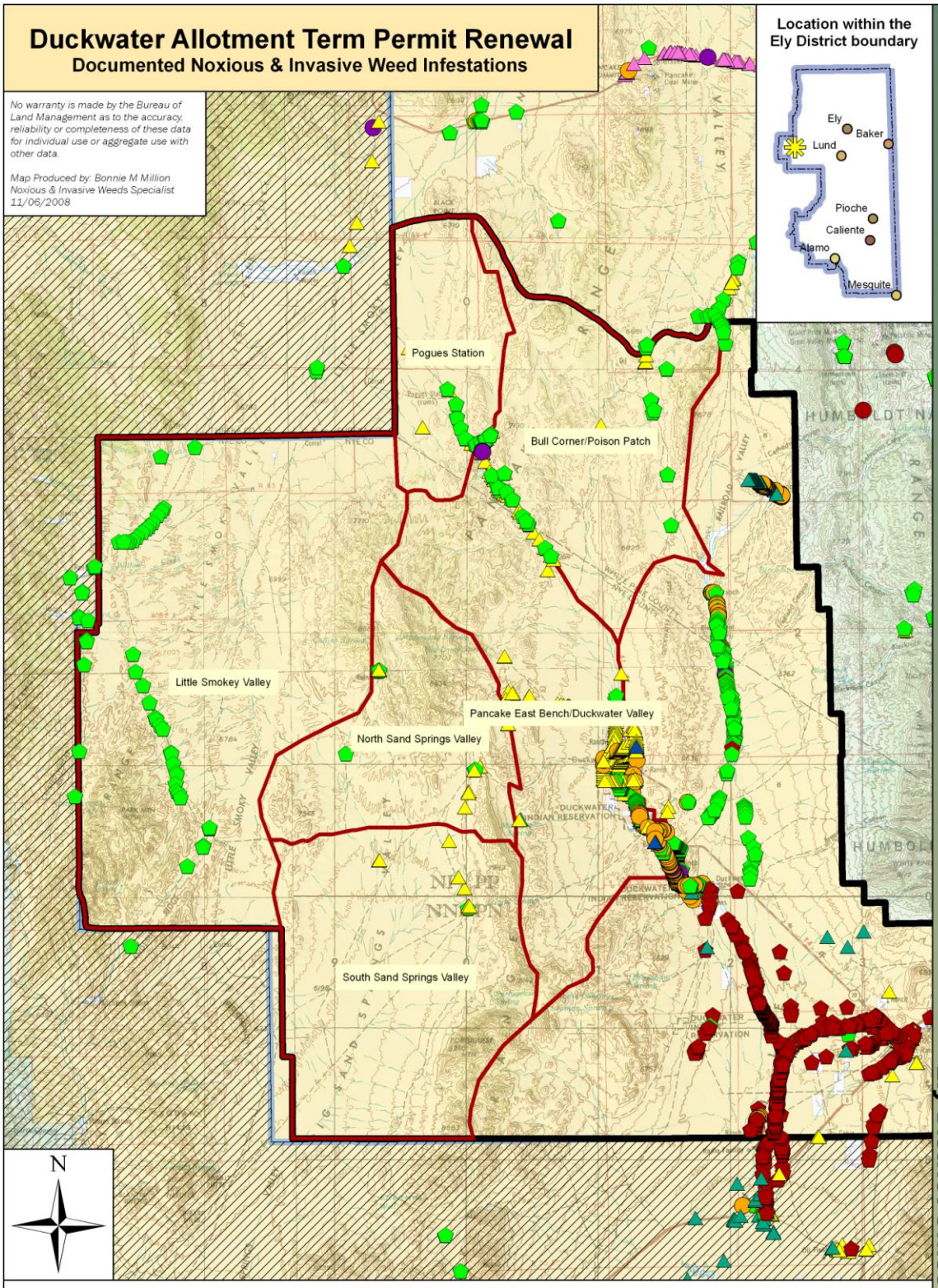

Cold Creek Allotment Term Permit Renewal
Documented Noxious & Invasive Weed Infestations
No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.
Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
11/06/2008
Location within the Ely District boundary
Ely
Baker
Lund
Pioche
Caliente
Alamo
Mesquite
BLM
Ely District Office
Huntington Valley
N
Legend
Cold Creek Allotment
Other BLM Districts
Ely District boundary
BLM
US Forest Service
Private
BLACK HENBANE
BULL THISTLE
CANADA THISTLE
LEAFY SPURGE
MUSK THISTLE
RUSSIAN KNAPWEED
SALT CEDAR
SCOTCH THISTLE
SPOTTED KNAPWEED
TALL WHITETOP
WATER HEMLOCK
WHITETOP/HOARY CRESS
0
1.5
3
6
9
12
Miles

Duckwater Allotment Term Permit Renewal

Documented Noxious & Invasive Weed Infestations

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
11/06/2008



Legend

- Duckwater Use Areas
- Duckwater Allotment
- Other BLM Districts
- Ely District boundary
- BLM
- US Forest Service
- Duckwater Shoshone Tribe
- Private
- BLACK HENBANE
- BULL THISTLE
- CANADA THISTLE
- MUSK THISTLE
- RUSSIAN KNAPWEED
- SALT CEDAR
- SCOTCH THISTLE
- SPOTTED KNAPWEED
- TALL WHITETOP
- WHITETOP/HOARY CRESS

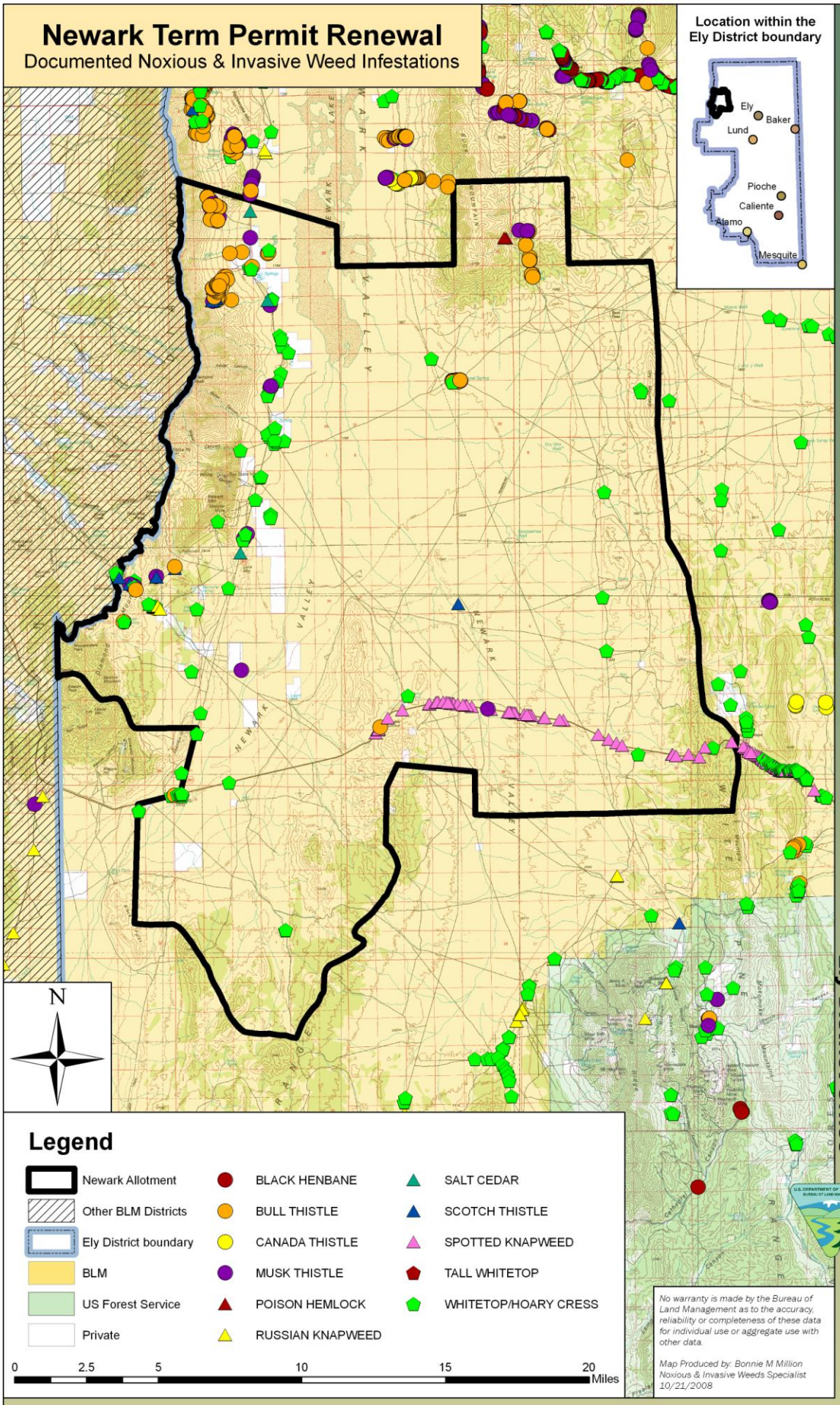
0 5 10 20 30 40 Miles

BLM

Ely District Office

Newark Term Permit Renewal

Documented Noxious & Invasive Weed Infestations



No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
10/21/2008

BLM

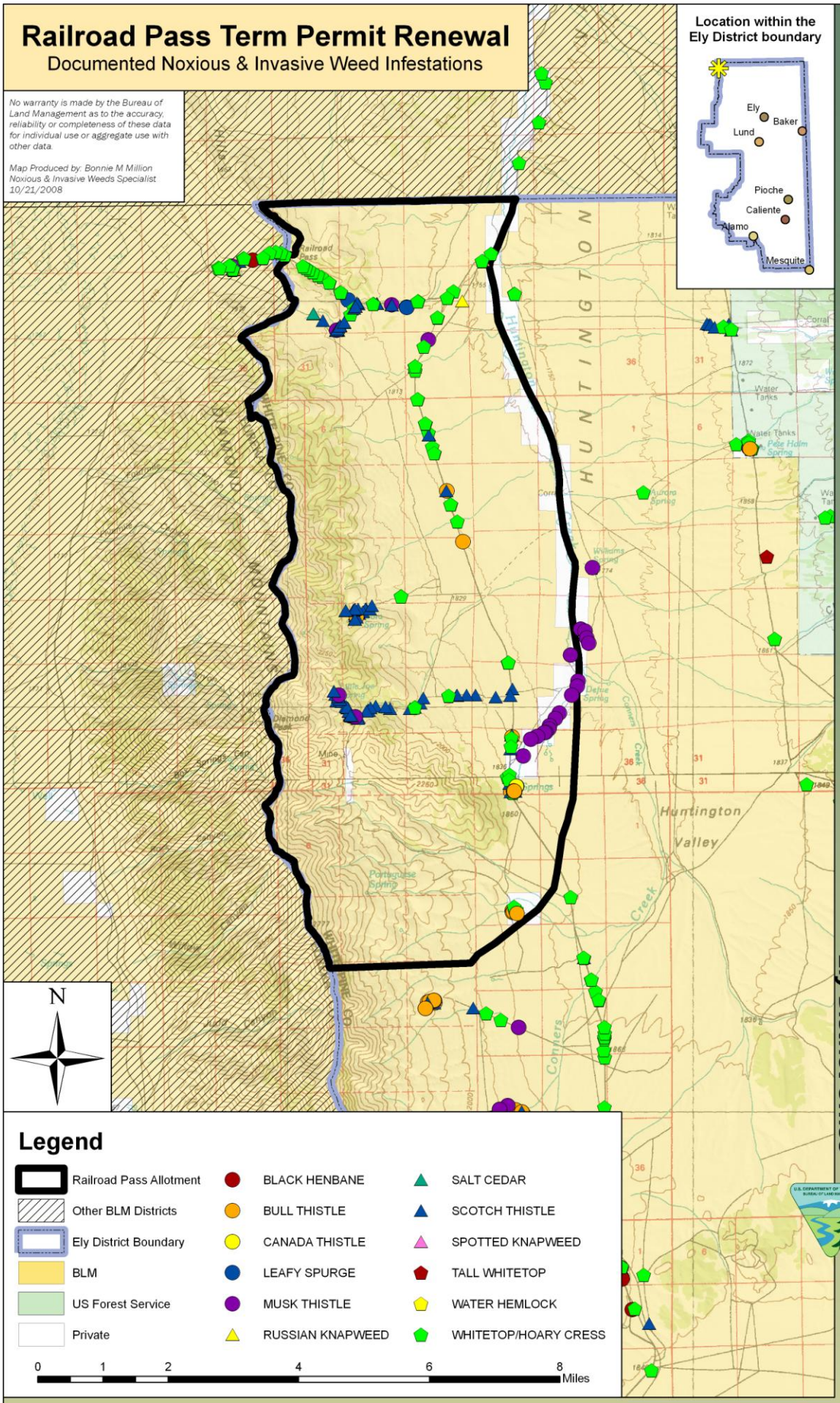
Ely District Office

Railroad Pass Term Permit Renewal

Documented Noxious & Invasive Weed Infestations

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
10/21/2008

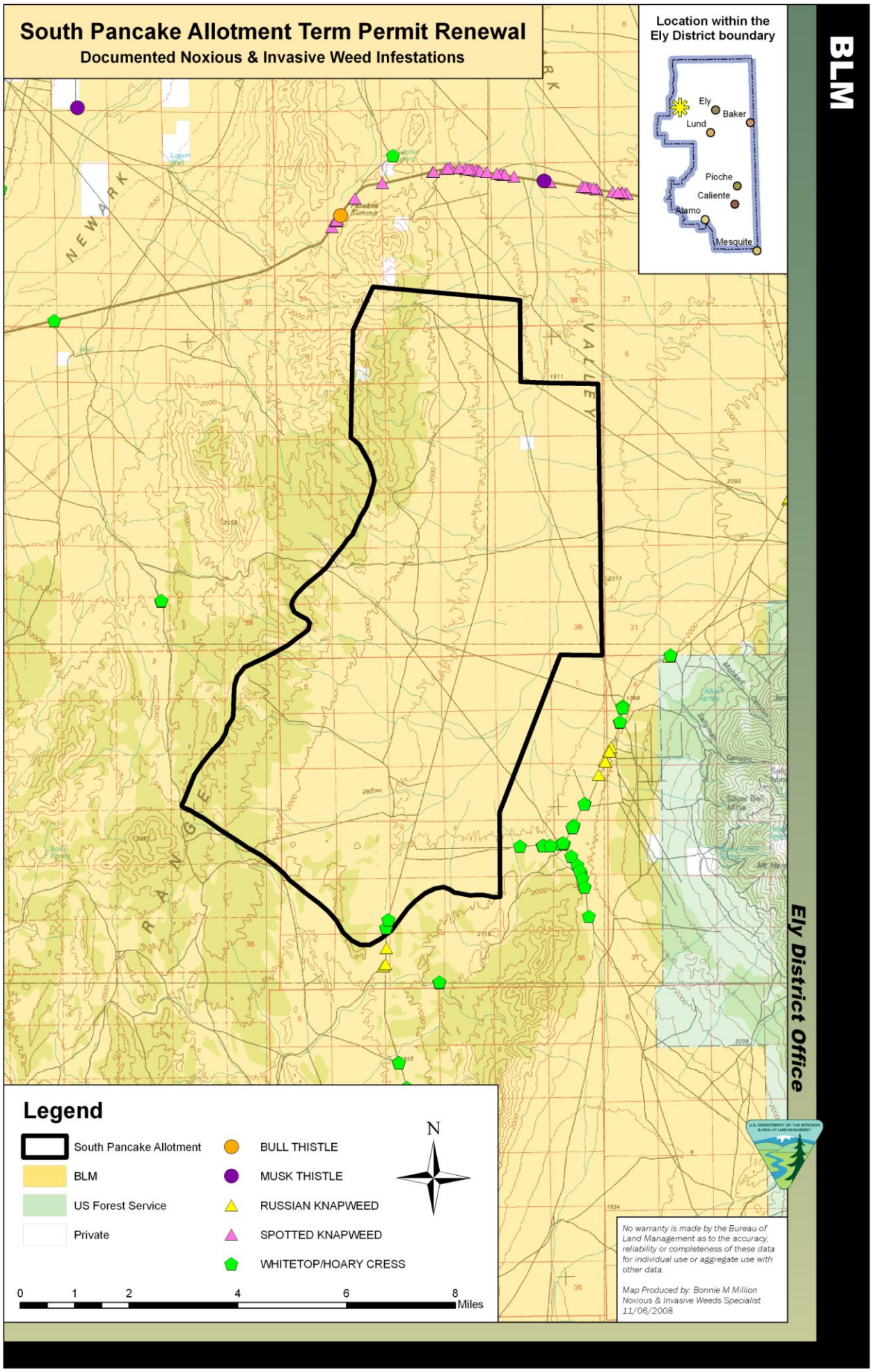


BLM

Ely District Office

South Pancake Allotment Term Permit Renewal

Documented Noxious & Invasive Weed Infestations

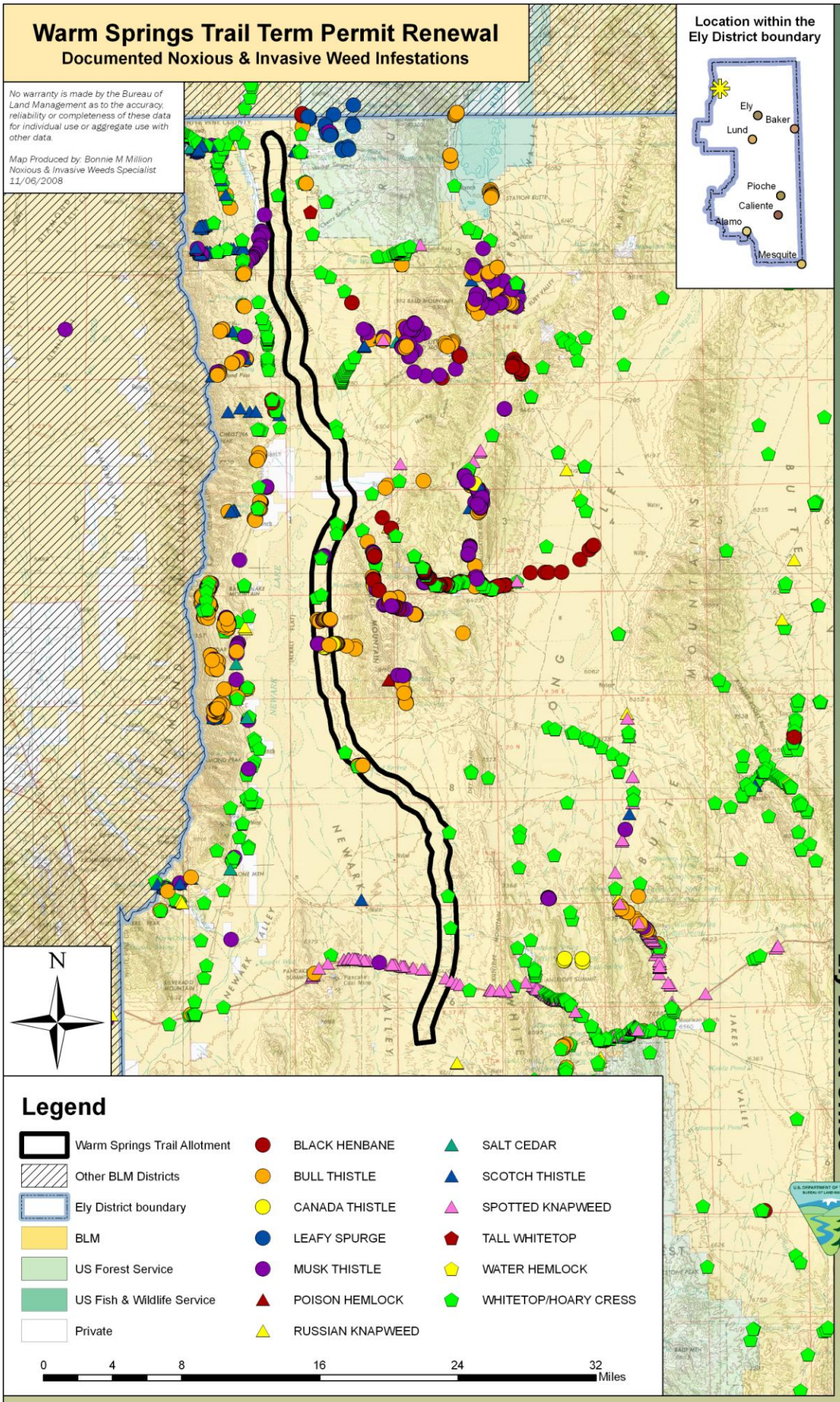


Warm Springs Trail Term Permit Renewal

Documented Noxious & Invasive Weed Infestations

No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.

Map Produced by: Bonnie M Million
Noxious & Invasive Weeds Specialist
11/06/2008



BLM

Ely District Office

RISK ASSESSMENT FOR NOXIOUS & INVASIVE WEEDS

Term Grazing Permit Renewal for Paris Livestock
Corta Allotment
Eureka County, Nevada

On February 13, 2009 a Noxious & Invasive Weed Risk Assessment was completed for the term grazing permit renewal for Paris Livestock on the Corta Allotment in Eureka County, NV. The Sand Springs Allotment encompasses approximately 213,040 public land acres. The grazing allotment occurs entirely within Nye County, and is situated approximately 75 miles southwest of Ely, Nevada. This grazing allotment is within the Battle Mountain BLM District and borders the Ely BLM District. This is a sheep permit with a total grazing preference of 200 animal unit months (AUMs). Of these, 128 AUMs are active and 72 AUMs are suspended nonuse. The current term permit authorizes approximately 4,850 head of cattle with a season of use from 05/01 to 05/04. The issuance of the new term grazing permit could be for a period up to ten years.

No field weed surveys were completed for this project. Instead the Battle Mountain District weed inventory data was consulted. The following species are found within the boundaries of the Corta Allotment:

Hoary Cress	*Cardaria draba*
Russian Knapweed	*Acroptilon repens*
Musk Thistle	*Carduus nutans*
Scotch Thistle	*Onopordum acanthium*
Black Henbane	*Hyoscyamus niger*

The Corta Allotment was last inventoried for noxious weeds in 2002. In 1989, leafy spurge (*Euphorbia esula*) was documented on the allotment, however has not been documented since that time. Also see the Risk Assessment for Noxious and Invasive Weeds completed for the Railroad Pass Allotment on the Ely BLM District as these two allotments are adjacent to each other. While not officially documented the following non-native invasive weeds probably occur in or around the allotment: cheatgrass (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), halogeton (*Halogeton glomeratus*), horehound (*Marrubium vulgare*), and Russian thistle (*Salsola kali*).

Factor 1 assesses the likelihood of noxious/invasive weed species spreading to the project area.

None (0)	Noxious/invasive weed species are not located within or adjacent to the project area. Project activity is not likely to result in the establishment of noxious/invasive weed species in the project area.
Low (1-3)	Noxious/invasive weed species are present in the areas adjacent to but not within the project area. Project activities can be implemented and prevent the spread of noxious/invasive weeds into the project area.
Moderate (4-7)	Noxious/invasive weed species located immediately adjacent to or within the project area. Project activities are likely to result in some areas becoming infested with noxious/invasive weed species even when preventative management actions are followed. Control measures are essential to prevent the spread of noxious/invasive weeds within the project area.
High (8-10)	Heavy infestations of noxious/invasive weeds are located within or immediately adjacent to the project area. Project activities, even with preventative management actions, are likely to result in the establishment and spread of noxious/invasive weeds on disturbed sites throughout much of the project area.

For this project, the factor rates as Moderate (4) at the present time. The proposed action could increase the populations of the noxious and invasive weeds already within the allotment and could aid in the introduction of weeds from surrounding areas. Within the allotment, watering and mineral supplement sites are of particular concern of new weed infestations due to the concentration of livestock around those sites and the amount of ground disturbance associated with this concentration.

Factor 2 assesses the consequences of noxious/invasive weed establishment in the project area.

Low to Nonexistent (1-3)	None. No cumulative effects expected.
Moderate (4-7)	Possible adverse effects on site and possible expansion of infestation within the project area. Cumulative effects on native plant communities are likely but limited.
High (8-10)	Obvious adverse effects within the project area and probable expansion of noxious/invasive weed infestations to areas outside the project area. Adverse cumulative effects on native plant communities are probable.

This project rates as Moderate (7) at the present time. If new weed infestations establish within the allotment this could have an adverse impact those native plant communities however, since there are many weed infestations currently within the allotment, those impacts would be limited. Also, any increase of cheatgrass could alter the fire regime in the area.

The Risk Rating is obtained by multiplying Factor 1 by Factor 2.

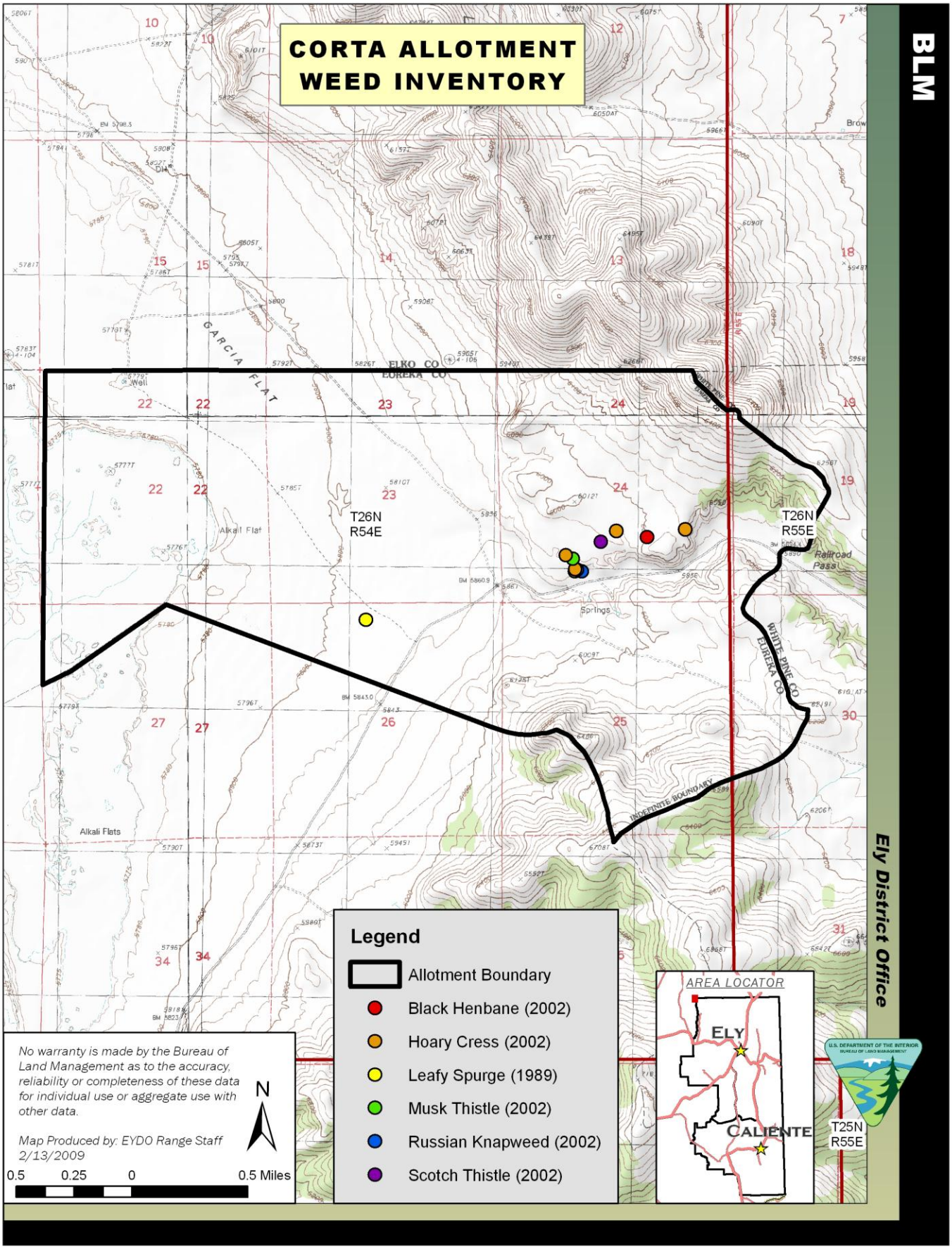
None (0)	Proceed as planned.
Low (1-10)	Proceed as planned. Initiate control treatment on noxious/invasive weed populations that get established in the area.
Moderate (11-49)	Develop preventative management measures for the proposed project to reduce the risk of introduction of spread of noxious/invasive weeds into the area. Preventative management measures should include modifying the project to include seeding the area to occupy disturbed sites with desirable species. Monitor the area for at least 3 consecutive years and provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.
High (50-100)	Project must be modified to reduce risk level through preventative management measures, including seeding with desirable species to occupy disturbed site and controlling existing infestations of noxious/invasive weeds prior to project activity. Project must provide at least 5 consecutive years of monitoring. Projects must also provide for control of newly established populations of noxious/invasive weeds and follow-up treatment for previously treated infestations.

For this project, the Risk Rating is Moderate (32). This indicates that the project can proceed as planned as long as the following measures are followed:

- To eliminate the introduction of noxious weed seeds, roots, or rhizomes all interim and final seed mixes, hay, straw, hay/straw, or other organic products used for feed or bedding will be certified free of plant species listed on the Nevada noxious weed list or specifically identified by the BLM.
- Prior to entering public lands, the BLM will provide information regarding noxious weed management and identification to the permit holders affiliated with the project. The importance of preventing the spread of weeds to uninfested areas and importance of controlling existing populations of weeds will be explained.
- The range specialist for the allotments will include weed detection into project compliance inspection activities. If the spread of noxious weeds is noted, appropriated weed control

procedures will be determined in consultation with BLM personnel and will be in compliance with the appropriate BLM handbook sections and applicable laws and regulations.

- When necessary, control or restrict the timing of livestock movement to minimize the transport of livestock-borne noxious weed seeds, roots, or rhizomes between weed-infested and weed-free areas.
- Any newly established populations of noxious/invasive weeds discovered will be communicated to the BLM.


CORTA ALLOTMENT
WEED INVENTORY
BLM
Ely District Office
T26N
R54E
T26N
R55E
T25N
R55E
GARCIA FLAT
Alkali Flat
Alkali Flats
Railroad Pass
Springs
ELKO CO
EUREKA CO
WHITE PINE CO
EUREKA CO
INDEFINITE BOUNDARY
Legend
Allotment Boundary
Black Henbane (2002)
Hoary Cress (2002)
Leafy Spurge (1989)
Musk Thistle (2002)
Russian Knapweed (2002)
Scotch Thistle (2002)
AREA LOCATOR
ELY
CALIENTE
No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual use or aggregate use with other data.
Map Produced by: EYDO Range Staff
2/13/2009
N
0.5
0.25
0
0.5 Miles