

RIVERSIDE
ALLOTMENT
MANAGEMENT
PLAN/AGREEMENT

ENVIRONMENTAL ASSESSMENT
OR-06-025-021

Three Rivers Resource Area
Bureau of Land Management
Burns District Office
28910 Hwy 20 West
Hines, Oregon 97738

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CHAPTER I. INTRODUCTION: PURPOSE OF AND NEED FOR ACTION

A. Background

Riverside Allotment #5538 is located approximately 50 air miles east of Burns, Oregon (Appendix A). Total Bureau of Land Management (BLM), State, Bureau of Reclamation-managed lands, and private land acreage for the allotment is 20,949 acres which are divided into seven pastures (Appendix B). In 2005 the Warm Springs Pasture was renamed to the Winnemucca Field because there were two Warm Springs Pastures adjacent to each other. The season of use for the allotment is from April 1 through October 31. Three grazing permits exist for this allotment, two of which were just recently acquired by Second Oregon LLC from McEwen Ranch LLC (one permit is owned by Second Oregon LLC and one is leased from the Ott family) and the remaining permit is held by Monte Siegner. Riverside Allotment borders the Stinkingwater Wild Horse Herd Management Area (HMA). There are no wild horse Animal Unit Months (AUMs) allocated within this allotment. However, wild horse use does occur when they drift out of the HMA.

In 2005, data from rangeland monitoring studies gathered on Riverside Allotment from 1995 to 2004 were analyzed by an Interdisciplinary Team (IDT) through a formal allotment evaluation to determine if current grazing management is or is not meeting resource objectives (see Section B resource objectives). The evaluation included an analysis of the allotment to determine if current management is in conformance with Oregon and Washington Standards for Rangeland Health and Guidelines for Livestock Grazing Management.

Results of this analysis determined that upland watershed function; riparian and wetland areas watershed function; ecological processes; water quality; and native, Threatened and Endangered (T&E), and locally important species standards were not being achieved in the allotment. Standards for Rangeland Health for locally important species and T&E species California bighorn sheep were met and no determination could be made for Malheur prince's plume due to lack of data. For standards not met, with the exception of water quality for Malheur River, current grazing management was a causal factor in not meeting standards. Livestock use, during critical growing periods without periodic rest or deferment until after seed set, does not provide for key forage species (e.g., bluebunch wheatgrass *Pseudoroegneria spicata* and crested wheatgrass *Agropyron cristatum*) to complete their reproductive cycle which was the main reason for current grazing management being a causal factor. Current grazing management, in association with the rapid spread of the noxious weed medusahead, has reduced available forage resulting in heavier utilization levels and repeat defoliation of key forage species in some areas.

The availability of key grass species for livestock use has been reduced on portions of the allotment due to the spread of medusahead. Remaining available key species are more likely to be grazed and receive repeat defoliation each season than they were before medusahead established. With medusahead present on the allotment, chances of meeting standards will be compromised until the court-ordered herbicide injunction which limits use of herbicides on BLM-managed lands in Oregon is lifted or an alternative method of control is discovered.

Following completion of the 2005 Riverside Allotment evaluation, an amendment to the evaluation was written in December of 2005 that proposed additional range improvements and livestock grazing management changes that would remove livestock from Warm Springs Creek, remove livestock grazing during critical growing seasons without periodic rest and, therefore, reduce the possibility of livestock grazing management being a causal factor in not meeting standards.

Through the 2005 Riverside Allotment Evaluation analysis, an IDT concluded and the Three Rivers Resource Area Field Manager concurred that Standards for Rangeland Health would be achieved and Guidelines would be conformed to through recommended changes in livestock grazing management which includes periodic rest or deferment during critical growth periods, removal of grazing from Warm Springs riparian zone and installation of range improvements. Therefore, complete removal of livestock grazing was not considered further.

This Allotment Management Plan/Environmental Assessment (AMP/EA) analyzes livestock management that addresses issues from the 2005 Riverside Allotment Evaluation and Allotment Evaluation Amendment and is tiered to the 1992 Three Rivers Resource Management Plan (RMP). Specific sections along with their respective objectives from the 1992 Three Rivers RMP related to Riverside Allotment are as follows: Water Quality 2-4; Grazing Management Program 2-33; Vegetation Program 2-51; Special Status Species (SSS) 2-57; Wildlife Habitat 2-66; Aquatic Habitat 2-96; Visual Resource Management (VRM) 2-148; Cultural Resources 2-152; Biological Diversity 2-200; Allotment Management Summaries Appendix 9, Appendices 97; and Appendix 2, Appendices 7 Summary of Recommended Practices for Stream Protection.

B. Purpose of and Need for Action

This EA has been written to analyze recommended management actions, developed through the evaluation process for Riverside Allotment, which would move management toward accomplishing resource objectives and meeting Standards for Rangeland Health and Guidelines for Livestock Grazing Management.

The purpose of implementing for the proposed AMP is to ensure livestock grazing practices on public lands achieve Standards for Rangeland Health and Guidelines for Livestock Grazing Management and meet the allotment resource objectives recommended in the 2005 Riverside Allotment Evaluation. For additional description, rationale and lists of environmental indicators for each standard refer to the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington, August 12, 1997. General standards descriptions are as follows.

The 2005 Riverside Allotment Evaluation determined that upland watershed function; riparian and wetland areas watershed function; ecological processes; water quality; and native, T&E, and locally important species standards were not being achieved in the allotment. Standards for Rangeland Health for locally important species and T&E species California bighorn sheep were met and no determination could be made for Malheur prince's plume due to lack of data. For standards not met, with the exception of water quality for Malheur River, current grazing management was a causal factor in not meeting standards. The rapid spread of the noxious weed medusahead is also a causal factor in not meeting standards. For further detail of the standards analyzed for Riverside Allotment refer to Chapter II (b) (Proposed Action Alternative - Management Changes, Season of Use Change and Range Improvements) of this document.

1. Standards

Standards for Rangeland Health (Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington, August 12, 1997)

- **Standard 1 Watershed Function – Uplands**

Upland soils exhibit infiltration and permeability rates, moisture storage and stability that are appropriate to soil, climate, and landform.

- **Standard 2 Watershed Function - Riparian/Wetland Areas**

Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

- **Standard 3 Ecological Processes**

Healthy, productive and diverse plant and animal populations and communities appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.

- **Standard 4 Water Quality**

Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

- **Standard 5 Native, T&E, and Locally Important Species**

Habitats support healthy, productive and diverse populations and communities of native plants and animals (including SSS and species of local importance) appropriate to soil, climate, and landform.

2. Guidelines

The 2005 Riverside Allotment Evaluation determined grazing management did not conform to Guidelines because use in the Vale, Ranch, and South Slope Pastures has been extending into May for the past several years causing annual use to occur during the critical portions of the growing season for key forage species development. The Reservoir Pasture has also received grazing use during these periods each year and is not conforming to guidelines.

Guidelines for Livestock Grazing Management (Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington, August 12, 1997)

- The season, timing, frequency, duration, and intensity of livestock grazing use should be based on the physical and biological characteristics of the site and the management unit in order to:
 - a. provide adequate cover (live plants, plant litter, and residue) to promote infiltration, conserve soil moisture and to maintain soil stability in upland areas;
 - b. provide adequate cover and plant community structure to promote streambank stability, debris and sediment capture, and floodwater energy dissipation in riparian areas.
 - c. promote soil surface conditions that support infiltration;
 - d. avoid subsurface soil compaction that retards the movement of water in the soil profile;
 - e. help prevent the increase and spread of noxious weeds;
 - f. maintain or restore diverse plant populations and communities that fully occupy the potential rooting volume of the soil;
 - g. maintain or restore plant communities to promote photosynthesis throughout the potential growing season;
 - h. promote soil and site conditions that provide the opportunity for the establishment of desirable plants;
 - i. protect or restore water quality; and

- j. provide for the life cycle requirements, and maintain or restore the habitat elements of native (including T&E, Special Status, and locally important species) and desired plants and animals.
 - Grazing management plans should be tailored to site-specific conditions and plan objectives. Livestock grazing should be coordinated with the timing of precipitation, plant growth and plant form. Soil moisture, plant growth stage and the timing of peak stream flows are key factors in determining when to graze. Response to different grazing strategies varies with differing ecological sites.
 - Grazing management systems should consider nutritional and herd health requirements of the livestock.
 - Integrate grazing management systems into the year-round management strategy and resources of the permittee(s) or lessee(s). Consider the use of collaborative approaches (e.g., Coordinated Resource Management, Working Groups) in this integration.
 - Consider competition for forage and browse among livestock, big game animals, and wild horses in designing and implementing a grazing plan.
 - Provide periodic rest from grazing for rangeland vegetation during critical growth periods to promote plant vigor, reproduction and productivity.
 - Range improvement practices should be prioritized to promote rehabilitation and resolve grazing concerns on transitory grazing land.
 - Consider the potential for conflict between grazing use on public land and adjoining land uses in the design and implementation of a grazing management plan.
3. Allotment-Specific Resource Objectives – Recommended and brought forward from the 2005 Allotment Evaluation
- a. Manage for stable or upward trend in range condition of Wyoming big sagebrush/bluebunch wheatgrass and crested wheatgrass plant communities over the next 5 years. Trend will be measured by relative frequency of occurrence of key forb, shrub, and perennial grass species as compared with total ground cover.

- b. Maintain or increase populations and numbers of Malheur prince's plume (*Stanleya confertiflora*) within the allotment over the next 5 years. Known prince's plume populations will be monitored annually to determine their health and condition. Annual monitoring will include belt transects or circle plots to measure the density of individual populations of prince's plume in key areas. New populations within the allotment will be recorded as they are discovered.
- c. Manage for increased hydric herbaceous species in conjunction with upward trend in riparian condition on Warm Springs Creek over the next 5 years. This will be measured by a Proper Functioning Condition (PFC) Assessment and a permanent riparian photo point with the photo taken on 5-year intervals.

C. Compliance with Land Use Plans, Laws, Regulations, and Policy

The proposed action and alternatives are in conformance with objectives and land use allocations in the 1992 Three Rivers RMP/Environmental Impact Statement (EIS), and with the objectives stated in the August 12, 1997 Standards for Rangeland Health and Guidelines for Livestock Management for Public Lands Administered by the BLM in the States of Oregon and Washington. All alternatives are consistent with the Endangered Species Act Sections 2(c) and 7(a) 1. The proposed action also conforms to all State, local, and Tribal laws, regulations, and land use plans.

CHAPTER II: ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. No Action Alternative

Under the no action alternative, no changes in grazing management or installation of new range improvements would be completed to aid in meeting standards for rangeland health and conforming to guidelines for livestock grazing management on those pastures that are currently not conforming. Refer to Appendix C for existing range improvements.

Current season of use would continue from April 1 through October 31. The Vale Pasture would be grazed from early April through early May annually. At these low elevations this season of use would not comply with the definition of "early" (refer to Appendix D: Grazing Treatment Descriptions) use in that there would be a lesser probability of full regrowth prior to the end of the growing season. The South Slope Pasture would also be grazed from early April through early May, which does not allow for periodic growing season rest at this low elevation. The Winnemucca Field would continue to be managed with a 2-year rotation with a graze treatment (Year 1) followed by a defer treatment (Year 2), with use rotated in this fashion over time. The Ranch Pasture would continue being grazed annually from early April through early May then again after seed set.

Typically utilization levels are light during the April/May use period and plants are allowed to set seed prior to the defer treatment. The Reservoir Pasture would continue to be grazed during the growing season and not provide periodic growing season rest. The North Slope Pasture would be grazed on an annual early/defer treatment, with a short period of use in March and then again when leaving the Reservoir Pasture during mid-July.

Table 1. Current Stocking Levels (AUM)

Permittee	Season of Use	Active Permitted Use	Suspended Use	Total Permitted Use	Exchange of Use	Total Use
Second Oregon LLC c/o Ed Dunlap	04/01 - 08/31	492	600	1,092	0	1,092
Second Oregon LLC (Ott Lease) c/o Ed Dunlap	04/01 - 08/31	485	205	690	0	690
Monte Siegner	04/01 - 10/31	1,068	0	1,068	170	1,238
TOTAL		2,045	805	2,850	170	3,020

* Siegner's active use changed from 1,082 to 1,068 AUMs in February of 2006 when an administrative adjustment was implemented which removed a portion of the North Slope Pasture of the Riverside Allotment and put it into the Riverside Fenced Federal Range (FFR) Allotment. This action removed 14 AUMs from the Riverside Allotment which were included into Riverside FFR.

B. Proposed Action Alternative - Management Changes, Season of Use Change (including Removing Livestock from Warm Springs Creek and Periodically Removing Livestock during Critical Growth Periods) and Project Development

1. Summary of Proposed Action Designed to Address each Standard for Rangeland Health not Achieved

The proposed action was designed by a BLM IDT to address the following Standards for Rangeland Health and Guidelines for Livestock Grazing Management that were determined as not being achieved with livestock as a causal factor in the 2005 Riverside Allotment Evaluation. It was also designed to meet Riverside Allotment resource objectives brought forth from the 2005 Riverside Allotment Evaluation (see Chapter I, Section B: Purpose of and Need for Action).

The 2005 Allotment Evaluation determinations for Standards for Rangeland Health and a Summary of how the proposed action would address each standard are as follows:

Standard 1: Watershed Function – Uplands: This standard was not met with current grazing management being a causal factor. Current grazing management does not provide periodic rest during critical growing seasons for key forage species within the Reservoir Pasture. Another causal factor is encroachment of medusahead which has outcompeted and reduced the density of native plant species.

- How will the proposed action address meeting this standard? – Adjust the season of use and pasture use periods to allow for periodic growing season rest for key forage species in each pasture in the allotment. There will be no livestock grazing during critical growing season for key forage plants at least once every 3 years in each pasture. This management action may be through scheduled use periods or based upon climate and available forage on any given year. Use the most appropriate methods for medusahead control as they become available.

Standard 2: Watershed Function – Riparian/Wetland Areas: This standard was not met for Warm Springs Creek in the Winnemucca Field with current grazing management being a causal factor. Grazing management for the Winnemucca Field was designed for upland key forage species management, not riparian management. An additional causal factor is wild horses that have drifted into this field from the adjacent HMA and reside year-round. A horse gather was conducted in September of 2005, but not all the horses were removed from the pasture.

- How will the proposed action address meeting this standard? – There are three alternatives which could be implemented as follows; (1) construct a reservoir in a nearby ephemeral drainage, fence Warm Springs Creek but leave one emergency use water gap that can be opened during periods of drought. Livestock grazing would be removed from the remaining area. (2) fence the creek and install year-round water gap(s) if reservoir is not successful, thus removing livestock from a majority of this stretch of the creek, or (3) pipe water from an adjacent pasture where a water storage tank would be constructed. If the reservoir is constructed, rangeland monitoring would determine whether or not the reservoir is an adequate water source. If it is determined to be inadequate, an additional water gap could be installed. The pipeline would only be constructed within the Winnemucca Field if the reservoir and water gaps are not adequate. Refer to the Proposed Action Section 2 (A) and (B) for a detailed description.

Standard 3: Ecological Processes: This standard was not met with current grazing management being a causal factor. Current grazing management does not provide periodic rest during critical growing seasons for key forage species within the Reservoir Pasture. Another causal factor is medusahead which has become the dominant species in areas throughout the allotment, consequently reducing plant diversity and the potential for functioning ecological processes such as nutrient cycling and the hydrologic cycle.

- How will the proposed action address meeting this standard? – Same as uplands, Standard 1.

Standard 4: Water Quality: This standard was not met with current grazing management being a causal factor. Grazing management within the Winnemucca Field was designed for upland key forage species management, not riparian management. Current grazing management is contributing to the decline in riparian condition and water quality by authorizing a season of use that encourages utilization levels above target levels in riparian plant communities and does not allow for riparian regrowth prior to high flow periods.

- How will the proposed action address meeting this standard? – Same as riparian, Standard 2.

Standard 5: Native, Special Status, and Locally Important Species: This standard was not met with current grazing management being a causal factor for redband trout and sage-grouse. Current grazing management did not meet Standards 1 through 4 which relate to providing quality habitat for both species. Another causal factor is encroachment of medusahead and how it effects sage-grouse habitat by outcompeting native plant communities and becoming the dominant plant species. No determination was made for achievement of this standard for Malheur prince's plume due to lack of data.

- How will the proposed action address meeting the standard for redband trout? – Same as riparian and water quality standards discussed above.
- How will the proposed action address meeting the standard for sage-grouse? – Same as uplands and ecological processes standards discussed above.
- How will the proposed action address meeting the standard for Malheur prince's plume? - The best mitigation for grazing a pasture containing prince's plume is to graze it after the seed is ripe and has fallen to the ground. The proposed grazing management provides periodic removal of livestock grazing during the critical growing season for this species. This would allow plants to periodically complete their reproductive cycle.

2. Management Actions Necessary to Achieve Standards for Rangeland Health and Meet Resource Objectives

Proposed management is as follows:

a. Grazing Management

Grazing management would be implemented that allows for periodic rest for rangeland vegetation during critical growth periods. During periodic rest during the critical growth periods, plants are allowed to set seed which promotes plant vigor, reproduction, and productivity. For Monte Siegner's permit, proposed management would provide a defer treatment or rest for each pasture at least once every 3 years. The Second Oregon LLC permit would continue current management on the Vale Pasture and Winnemucca Field, an early treatment annually and a graze/defer treatment, respectively. (Refer to Appendix E: Grazing Schematic and the following table.)

Table 2: Grazing Treatments Per Pasture – Three-Year Rotation

Year	Permittee	Pasture Number	Pasture Name	Grazing Treatment	Approximate Season of Use Dates
1	Second Oregon	1	Vale	Early	04/01 – 04/30
	Second Oregon	4	Winnemucca Field	Defer	07/01 – 09/15
	Monte Siegner	2	Ranch	Early/Graze	04/01 – 05/05
	Monte Siegner	5	Reservoir	Graze	05/06 – 07/08
	Monte Siegner	7	North Slope	Defer	07/09 – 07/12
	Monte Siegner	6	Upper	Defer	*07/15 – 09/15
	Monte Siegner	3	South Slope	Rest or Defer	*Defer would be 09/01 – 09/15
2	Second Oregon	1	Vale	Early	04/01 – 04/30
	Second Oregon	4	Winnemucca Field	Graze	05/15 – 07/31
	Monte Siegner	3	South Slope	Early	04/01 – 04/15
	Monte Siegner	6	Upper	Graze	04/16 – 05/31
	Monte Siegner	5	Reservoir	Graze	06/01 – 07/08
	Monte Siegner	7	North Slope	Defer	07/09 – 07/12
	Monte Siegner	2	Ranch	Defer	*07/15 – 09/15
3	Second Oregon	1	Vale	Early	04/01 – 04/30
	Second Oregon	4	Winnemucca Field	Defer	07/01 – 09/15
	Monte Siegner	3	South Slope	Early	04/01 – 04/30
	Monte Siegner	6	Upper	Graze	05/01 – 07/10
	Monte Siegner	2	Ranch	Graze	04/01 – 07/10
	Monte Siegner	5	Reservoir	Defer	07/15 – 09/15
	Monte Siegner	7	North Slope	Defer	09/15 – 09/19

- * Monte Siegner's proposed rotation and grazing treatments have not been attempted previously during these seasons of use with one group of cattle versus a split herd. Carrying capacities per pasture during these seasons of use are unknown, but have been estimated based upon past utilization levels, actual use reports, and use supervisions by resource specialists. On Year 1, cattle may need to move to the Ranch or South Slope Pastures from September 1 to September 15, and on Year 2 they may need to move to the Upper Pasture from September 1 to September 15 based upon utilization levels in the Upper and Ranch, respectively. Active monitoring of this proposed rotation through use supervision would occur during the 3-year cycle with utilization studies and applied as a seasonal indicator of grazing management progress toward objectives.

The "Early" treatment assigned to the Vale Pasture must be completed before April 30 to allow for regrowth because this allotment is at the lowest elevation in Burns District BLM, and the growth cycle of plants is earlier. Actual use dates on all other pastures may be adjusted annually as long as periodic rest from livestock grazing during the critical growing season is provided for each pasture at least once every 3 years.

Proposed management would move toward achieving the resource objective for Malheur prince's plume because periodic rest during the critical growing season for this species and key forage species is provided in all pastures thus conforming to the Guidelines for Livestock Grazing Management. Incorporating a defer treatment (removing livestock until after seed set) into grazing management for the Reservoir Pasture would aid in maintaining the condition of crested wheatgrass seedings currently in fair to good condition.

A new rangeland trend plot would be established in the Reservoir Pasture in a location representative of the crested wheatgrass seedings, to monitor this plant community.

The current stocking levels would remain the same (refer to Table 2 in the No Action Alternative) with the exception of the season of use for Siegner's permit. Siegner's current permitted season of use begins on April 1; however, under the proposed action season of use would begin on March 1 to allow for early use in the North Slope Pasture.

b. Range Improvement Projects

Reservoir Pasture:

In the 2005 Riverside Allotment Evaluation Amendment, a project was discussed and recommended that would assist in providing flexibility in season of use by providing reliable water that would last later in the season and improve livestock distribution for the Reservoir Pasture. This project would provide a water source that would possibly last later into the grazing season thus allowing livestock use to occur after seed set (deferred) and outside of the critical growing season of key forage plants. The project would entail pumping water either from the Middle Fork of the Malheur River, just below Warm Springs Dam, or pumping from an existing well near the river owned by Warm Springs Irrigation District. If the well is used for this range improvement project, a cooperative agreement among BLM, the permittee, and Warm Springs Irrigation District would be completed to secure use of the well. Water would be pumped to the top of a hill in the NE $\frac{1}{4}$ of Section 18, T. 23 S., R. 37 E., into a storage tank. A trough would be placed near the storage tank, with a pipeline that would run south (approximately 1.0-mile) and spur lines (approximately 0.75-mile each) would be installed east and west with a trough on each branch. An additional pipeline spur would run west from the storage tank approximately 2.5 miles into the north end of the Winnemucca Field with one trough at the end. This additional water source would aid in livestock distribution across the north end of the pasture. (See Appendix C: Proposed Range Improvements Map.)

Warm Springs Creek:

Livestock are currently a factor influencing the condition of this 0.6-mile stretch of creek. The most practical option for riparian improvement would be to construct a reservoir in an ephemeral drainage that runs into Warm Springs Creek from the southeast (T. 23 S., R. 36 E., Section 23 – see Appendix C: Proposed Range Improvements Map). All material removed from the excavation would be used for construction of the dam and/or placed along side the reservoir and leveled. This reservoir would have a dam of no higher than 9.8 feet and a water holding capacity no more than 3.0 acre/foot. At the time this waterhole is constructed, Warm Springs Creek would be fenced to exclude livestock grazing, with the exception of a water gap (approximately 200 feet wide) at the northern end of the stretch of creek. The water gap would need to be fairly large to capture water in the gap since this is an intermittent stream. This water gap is intended for emergency use if the reservoir is not holding adequate water. It would be constructed so that access to the creek is closed off to livestock use most years but could be opened when needed.

This determination would be made by BLM range and riparian staff in consultation with the grazing permittee.

Monitoring of the proposed reservoir and its water holding ability by BLM range and riparian specialists and the grazing permittee would determine if adequate water is being provided. After at least 3 years, an additional water gap (no more than 200 feet wide) could be installed into the Warm Springs Creek enclosure if water is not adequate in the reservoir and the original water gap.

Each project would be completed according to BLM specifications. Special Status plant and cultural resources surveys would be completed prior to any construction to ensure avoidance of possible impacts.

Upon affirmative final decision of this proposed action a cooperative agreement among the Riverside Allotment permittee(s), Burns District BLM, and possibly Warm Springs Irrigation District would be completed to address each partner's responsibilities for construction, maintenance, electricity, and/or supplies. The project would be funded under a cost share between Burns District BLM and the permittee(s). Projected costs for each cooperator and BLM would also be specified in a cooperative agreement.

Reseeding would take place in areas disturbed by implementation of range improvements projects. Soil displaced for pipeline installation would be pulled in and returned to original slope and grade then seeded with a whirly bird seeder and drag. The seed mix used for these range improvement projects would be crested wheatgrass alone or crested wheatgrass, bluebunch wheatgrass, squirreltail, and native forbs if the project takes place in an area not already seeded with crested wheatgrass. Crested wheatgrass would be used in the seed mix because it is drought tolerant, competitive with invasive species, has a long seed viability period, and aggressive germination characteristics. Any equipment used on the project sites would be inspected and cleaned of weed seeds prior to being allowed to enter the project site. Periodic inspections and observations at the project sites would be made following construction to monitor and ensure that no new infestations of noxious weeds become established. If noxious weeds are found they would be treated using the most appropriate methods available in accordance with the Burns District Noxious Weed Plan.

See Appendix C for a map of Proposed Range Improvements

CHAPTER III: DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. Critical Elements

The following critical elements of the human environment have been analyzed in the Three Rivers RMP/EIS, are not known to be present, or would not be known to be affected by the proposed action or alternatives and will not be discussed further in this EA: Areas of Critical Environmental Concern, Air Quality, American Indian Traditional Practices, Flood Plains, Hazardous Materials, Wild and Scenic Rivers, Wilderness and Wilderness Study Areas.

The following critical element was not discussed in the Three Rivers RMP/Final EIS:

Environmental Justice: Executive Order 12898 requires that Federal agencies adopt strategies to address environmental justice concerns within the context of agency operations. Implementation of the proposed action would not result in disproportionately adverse human health or environmental effects on minority or low-income populations. Therefore, Environmental Justice will not be addressed further in this document.

Critical elements of the human environment which may be affected by the proposed action and/or alternatives are described below.

1. Cultural Heritage

Within the 2,036 acres of the allotment inventoried for cultural resources, 17 archaeological sites have been found. They range from simple lithic scatters where tool stone was found and made into stone tools to more complex prehistoric camps. It is possible the allotment contains edible plant resources that were important to ancestors of Burns Paiute people prior to Euro-American settlement. American Indian traditional use, sacred or religious areas are not known to occur in the allotment.

Fourteen of 17 sites (82 percent) have been impacted to some degree by livestock trampling. Other common impacts are from rodent burrowing, erosion, vandalism, weathering, fire fighting, and road building. Due to limitations in budget, none of the 17 sites have been revisited since they were recorded nor has monitoring for trend been set up. Site locations are withheld in this document because they are exempt from the Freedom of Information Act.

2. Migratory Birds

Migratory birds are known to use the allotment for nesting, foraging, and resting as they pass through on yearly migrations; however, no formal monitoring for migratory birds has been conducted for this allotment. Migratory birds that use grassland and sagebrush habitats in eastern Oregon, as well as juniper habitats, could occur on this allotment. Brewer's sparrow, sage sparrow, and loggerhead shrike, all of which are Birds of Conservation Concern for the Great Basin Region, are expected to inhabit the allotment.

3. Noxious Weeds

The Burns District BLM database currently lists 11 noxious weed sites totaling 636.0 acres in Riverside Allotment. There have been three different noxious weed species documented in the allotment: three Canada thistle sites (.09-acre), one bull thistle site (.0007-acre), and seven medusahead rye sites (635.9 acres). Initial weed inventory was conducted in 1986. Additional medusahead inventory was conducted via air in the mid-1990s but ground-truthed extents were informally documented (not recorded using a Global Positioning System) because it is unlikely these areas will be treated in the foreseeable future due to the court-ordered herbicide injunction which limits use of herbicides on BLM lands in Oregon. The medusahead sites occur in all pastures. The largest documented site is in the South Slope Pasture. None of the identified sites have been treated.

The most contentious weed problem in the allotment is medusahead rye. Acreage estimates for medusahead from the database (635.9 acres) are likely well under actual infested acres. It is increasing rapidly in the allotment uplands and has been for many years. In many places it has completely replaced bunchgrasses.

A majority of this allotment does not receive much recreational hunting and/or recreational Off-Highway Vehicle use as it is blocked in by extensive private holdings, therefore, spreading of noxious weeds is limited from these uses.

Until the court-ordered herbicide injunction which limits the use of herbicides on BLM-administered lands in Oregon is lifted, the BLM will be unable to treat this noxious weed with the most appropriate methods.

4. Paleontology

One paleontological site is located within the allotment, and the potential for others to be found is very high.

5. Special Status Species – Fauna

There are no known Federally listed Threatened, Endangered, or Proposed wildlife species found within or near the allotment.

Greater sage-grouse (*Centrocercus urophasianus*) are expected to occur on the allotment and habitat for this species is known to exist. Sage-grouse, a BLM SSS, has been closely monitored in recent years due to concerns for population numbers. No known lek sites have been found within the allotment; however, the Gold Gulch lek site is located about a mile west of the allotment. This lek was discovered in 1990 when Oregon Department of Fish and Wildlife (ODFW) conducted searching flights for leks, and 14 male sage-grouse were observed. This lek is considered active, and sage-grouse were observed during aerial surveys performed by ODFW in 2004. Approximately 20 percent of the allotment is classified as yearlong habitat for sage-grouse, which includes the northern sections of the Winnemucca Field and Reservoir Pasture. Another 30 percent is classified as probable habitat with use by sage-grouse being uncertain. The remaining 50 percent is classified as unsuitable habitat due to a variety of factors including wildfire which removes the shrub component and converts the area to native grasslands or allows for noxious weed invasions. In 1983 a wildfire swept across approximately 8,200 acres of this allotment; then in 1997, 197 acres were burnt in the Winnemucca Creek Fire; and in 2001, 16 acres were burnt in the Siegner Fire. Nonnative seedings do not provide necessary forage species and power lines that provide perches for predators are also contributing to the 50 percent classified as unsuitable habitat.

Redband trout (*Oncorhynchus mykiss*) use Warm Springs Creek during early season high flow events. Redband migrate through this allotment to spawn upstream near Company Springs in high water years. This was first observed in the spring of 1981 and 1984 and fry were then observed in that area in the fall of each year. Redband trout are also present in the Malheur River.

According to the Three Rivers RMP (1992) there is no habitat within the allotment that is classified as suitable range for California bighorn sheep (*Ovis canadensis nelsoni*), also a BLM SSS. Casual observations, however, have documented bighorn sheep use in the portion of the allotment containing the Middle Fork of the Malheur River.

Other SSS that may inhabit this allotment include several species of bats, hawks, owls, and songbirds that could use the area as foraging or nesting habitat.

6. Special Status Species – Flora

Malheur prince's plume (*Stanleya confertiflora*) is a Special Status plant species known to occur in the Ranch and North Slope Pastures of Riverside Allotment. This plant is a Bureau Sensitive species, a Federal Species of Concern, and is on the Oregon Natural Heritage Program (ONHP) list 1 as a species which is threatened or endangered throughout its range. It is only found in the Burns and Vale Districts and on three sites in Idaho. There is potential for conflicts between this species and livestock grazing. Prince's plume appears to be very palatable to grazers.

Two other rare plant species currently on ONHP list 4 (not considered Special Status) found in Riverside Allotment are short-lobe beardtongue (*Penstemon seorsus*) and Biddle's lupine (*Lupinus biddlei*). The beardtongue is in the north part of the Winnemucca Field and the lupine is in the Reservoir and Ranch Pastures. Both species are Bureau Tracking species and are on ONHP list 4 as species of conservation concern because they are rare and require continued monitoring, but are not currently threatened or endangered. No monitoring is occurring; however, new sites are being documented. There are no known grazing conflicts because both species are known to be abundant in this general area and are not known to be palatable to livestock.

7. Water Quality

This allotment falls within the Upper Malheur River – Warm Springs Reservoir and the Lower South Fork Malheur River watersheds. The entire allotment is within the Upper Malheur River subbasin.

Malheur River

The portion of the Malheur River that runs along Riverside Allotment is on the Oregon Department of Environmental Quality (ODEQ) 303(d) list of water quality impaired waters for exceeding the 68 °F standard for salmonid rearing. Because this river reach is part of Vale District and the dominant force influencing riparian condition is fluctuations in water levels due to the regulated release of water at the dam, Burns District has not collected any data on this portion of the river.

Warm Springs Creek

There is approximately 0.6-mile of Warm Springs Creek (an intermittent stream) within the Winnemucca Field. No formal water quality monitoring has occurred on this allotment. Water enters this allotment above the 68 °F ODEQ standard causing water temperatures to be high when entering Riverside Allotment. The pasture boundaries surrounding Warm Springs Creek were originally designed for multiple livestock water gaps. This section of stream has been managed more or less like a water gap with grazing management designed for improvement of upland key forage species, not riparian condition. Current grazing management is contributing to the decline in riparian condition and water quality by authorizing a season of use that does not allow for riparian regrowth prior to high flow periods.

8. Wetlands and Riparian Zones

The Malheur River borders the Reservoir Pasture and serves as a boundary between the Burns and Vale Districts. The river falls under Vale District jurisdiction; however, management actions within Riverside Allotment have potential to affect the Malheur River, regardless of which has jurisdiction. Livestock use along the river is minimal due to steep canyon walls along a majority of both sides of the river. The principal factor limiting riparian vegetation and aquatic habitat are fluctuating water levels, well outside of natural patterns, due to the upstream Warm Springs Reservoir and dam. Because of this, there has been no data collected on this portion of the river by Burns District.

The segment of Warm Springs Creek within Riverside Allotment has functioned as a livestock water gap and was not identified in the 1992 Three Rivers RMP to be managed as a riparian area. A 1998 PFC Assessment rated this portion of the creek to be Functioning at Risk with an upward trend. Small headcuts and inadequate vegetation to protect banks and dissipate energy during high flow events were two main reasons for this categorization. Based on field observations in 2003 and 2004, conditions appear to be similar to those recorded in 1998. This creek is considered to be in an upward trend; however, improvement of this system is slow because the stream is intermittent and is approximately 90 percent dry by July.

B. Noncritical Elements

Noncritical elements that are not known to be present or would not be affected in any way by implementation of the proposed action are Fire Management, Forestry/Woodlands, Lands and Realty, Minerals and Reclamation, Wild Horses and Burros, and Wilderness Characteristics.

Wilderness Characteristics: An intensive inventory evaluating the presence of wilderness characteristics on most of the BLM-administered lands in the Riverside Allotment was completed in March of 1980 and found that wilderness characteristics were not present. In January of 2007 an IDT reviewed and updated the 1980 inventory with information about the current conditions of the BLM-administered lands in the inventory units associated with the Riverside Allotment. No changes to conditions were identified that would modify the findings of the 1980 inventory; therefore, wilderness characteristics have been determined not to be present.

Noncritical elements of the human environment which may be affected by the proposed action and/or alternatives are:

1. Livestock Grazing Management

Three grazing permits exist for this allotment two of which are held by Second Oregon LLC (one permit is owned and one is leased from the Ott family) and the third is controlled by Monte Siegner. The two permittees do not graze in common on any of the pastures. The current grazing management by permittee is as follows:

- Second Oregon LLC – The Vale Pasture is grazed during April. Over the past several years it has been grazed into mid-May which is within the critical growing season for key species and does not leave adequate time for regrowth. Second Oregon cows then move on to Buck Mountain Allotment for a period then return and graze the Winnemucca Field with a graze/defer treatment. [graze treatment: May 15 to July 31, defer treatment: July 1 to September 5].
- Monte Siegner - In March, Monte Siegner's cattle graze in the North Slope Pasture for approximately 2 to 4 weeks. Starting on approximately April 1, the cattle are divided into two groups. Group one grazes the South Slope Pasture during April then moves to the Reservoir Pasture for most of May and June. This group is then gathered back into the North Slope Pasture for approximately 10 days. Group two begins in the Ranch Pasture and grazes during April. They then go to the Upper Pasture until the first week in July and return home with group one to wean calves. Dry cows are then turned back to the Ranch and Upper Pastures by mid to late July and stay in each pasture until mid-September.

The existing water sources within the Reservoir Pasture do not allow for adequate livestock distribution. Areas of crested wheatgrass farthest away from water are becoming decadent and less palatable, because they are grazed slightly or not at all.

Current total active use between the two permits is 2,045 AUMs of forage for livestock. Calculated carrying capacity from the 2005 allotment evaluation is 2,669 AUMs of forage available for all demands in Riverside Allotment. There are currently 805 AUMs of suspended nonuse in the allotment, on the Second Oregon LLC permit.

2. Social and Economic Values

Those engaged in ranching and forage production make up a strong component of the fabric of local society. The highest individual agricultural sales revenue in Harney County is derived from cattle production, which is inextricably linked to the commodity value of public rangelands. According to information derived from Harney County the "...cattle industry is counted on to provide an average of \$28,000,000 per year to the economy of the county," (www.harneycounty.com 2003). In addition, nearly half of the county taxes come from the ranching community (ibid). There are two ranches that rely fully or partially on public lands within Riverside Allotment.

3. Soils

The general soil type in Riverside Allotment is a Gumble/Risley/Mahoon complex. Range sites are described as shallow 9-12 (Gumble), clayey 9-12 (Risley), and clayey 9-12 and clayey south 9-12 (Mahoon). The Gumble series occupies slopes of 20 to 40 percent while both Risley and Mahoon occupy slopes of 2 to 20 percent. These soils occur on hilltops and ridges, hills, and hillsides and tablelands, respectively. Gumble and Risley series are found at elevations of 3,500 to 4,500 feet while the Mahoon is generally found higher at 3,600 to 4,700 feet. The texture of these soils ranges from very gravelly silt, gravelly loam, to very cobbly loam, respectively. Gumble soils are shallow, while Risley and Mahoon soils are moderately deep. All are well-drained soils.

4. Vegetation

The current dominant vegetation in Riverside Allotment includes Wyoming big sagebrush and bluebunch wheatgrass. The Reservoir Pasture is predominantly crested wheatgrass in good condition. However, the invasive annual grass medusahead is prevalent across a majority of the pastures, spreading rapidly and threatening the overall health of the landscape. Medusahead does well in the high clay content soils of this allotment. Very few juniper occur on this allotment due to low annual precipitation (approximately 10 inches), lower elevations (3,300 to 4,900 feet) and high average temperatures.

5. Visual Resources

Approximately half of the allotment is inaccessible to the public due to fenced private lands. The entire allotment falls within VRM Class IV. Class IV is defined in the 1992 Three Rivers RMP as, "(modification of the landscape character) includes areas where changes may subordinate the original composition and character; however, they should reflect what could be a natural occurrence within the characteristic landscape."

Classes are categorized by the degree of alteration that is acceptable within the characteristic landscape. It is based upon the physical and sociological characteristics of any given homogenous area. VRM Class IV allows the highest level of change to the characteristic landscape.

6. Wildlife

Approximately 30 percent of the allotment is classified as winter range for deer, which is located on the eastern most section of the allotment. Approximately 10 percent is classified as elk winter range, which occurs on the western edge of the allotment. This allotment is in ODFW's Malheur Wildlife Management Unit for deer and antelope and it is in the High Desert Management Unit for elk. Deer numbers are at about 60 percent of the proposed management objective for the Malheur Unit, and elk numbers are at 100 percent of management objectives for the High Desert Unit. Elk mostly travel through the allotment from juniper cover to the west on their way to hay fields on the South Fork of the Malheur River. The time of season elk use the allotment as foraging and resting areas mainly occurs during winter. Antelope and mule deer can also be found regularly within the allotment. The Three Rivers RMP (1992) allocated 27 AUMs to deer, 0 AUMs for elk, and 11 AUMs to antelope in this allotment. There has been no formal wildlife or wildlife habitat monitoring in Riverside Allotment.

Additional wildlife species currently inhabiting the allotment include sage-grouse, badgers, bobcats, coyotes, and a myriad of small mammals.

Establishment and expansion of noxious weeds, particularly medusahead rye, throughout the allotment is a serious threat to the health of the ecosystem here, and likely has negative effects to forage production for wildlife. The spread of nonnative invasive plants alter the structure and function of ecosystems they invade and threaten biological diversity.

7. Recreation

Warm Springs Reservoir is a highly used recreation site throughout the summer months. The Reservoir Pasture borders Warm Springs Reservoir and pasture boundary fences go straight into the reservoir. This has caused some complications with boaters and livestock movement to other allotments. Some hunting occurs on this allotment for game species such as deer, elk, antelope, and chukar. Primitive camping sites are present in the allotment, with the majority of use occurring during hunting season from August through December.

CHAPTER IV: ENVIRONMENTAL CONSEQUENCES

The following impacts could result from implementation of the proposed action or the no action alternative.

A. Critical Elements: No Action, Proposed Action, Cumulative Effects

1. Cultural Heritage

a. No Action Alternative

Under the no action alternative no new range improvement projects would be completed; therefore, there may be no additional cultural resource surveys or inventories conducted. The 17 existing sites inventoried for the allotment were only found during range improvement project cultural clearances. Livestock grazing patterns and congregation areas would remain essentially the same within the allotment. If sites are located within these congregation areas, they would continue to be affected to some degree by livestock trampling. If sites are not located within or close proximity to these congregation areas, trampling effects would be minimal.

b. Proposed Action

Under the proposed action, additional cultural surveys or inventories would be conducted before the proposed range improvement construction begins. This is more than likely the only way in which more knowledge and inventories of the cultural heritage existing on the allotment would be obtained. Monitoring of previously inventoried sites is not scheduled due to budget restraints; therefore, it is unknown at this time whether or not changes in grazing management would affect cultural heritage. In general, proposed projects within the Winnemucca Field and the Reservoir Pasture would distribute livestock grazing more widely. This should, in turn, put less pressure on current livestock congregating areas.

Negative effects to National Register eligible cultural properties during proposed project construction would be mitigated by avoidance or other means.

c. Cumulative Effects

Under the no action alternative, no range improvements would be implemented creating minimal impacts to potential cultural or historical sites in those areas. Under this alternative, distribution would not improve, increasing the chance of trampling effects to cultural resources in current livestock congregation areas.

The cumulative result of all of the proposed action projects, the proposed change in season of use, and livestock grazing management is to improve distribution of livestock throughout the Reservoir Pasture and Winnemucca Field. This result may affect cultural resources in previously unaffected areas of the allotment. At the same time, reducing livestock congregation in heavily grazed areas of the allotment could reduce trampling effects to as yet undiscovered sites located in those areas. There are no known cultural sites at congregation areas; however, only approximately 20 percent of this allotment has been surveyed.

2. Migratory Birds

a. No Action Alternative

Current grazing practices typically allow for relatively even livestock distribution across pastures except for in the Reservoir Pasture. Lack of reliable water sources in this pasture has resulted in uneven livestock distribution, creating areas more heavily grazed by cattle. Heavy use of vegetation in these areas could have negative impacts for migratory birds. A large percentage of the pasture would continue to receive light utilization and provide minimally disturbed areas for migratory birds if the proposed projects were not implemented. Areas receiving heavy utilization patterns have potential to provide lower quality habitat for migratory birds; however, under this alternative, that potential would not likely be realized. No changes to the season of use in the Reservoir Pasture could result in a downward trend on crested wheatgrass thus creating less desirable habitat for those birds that may use these areas. No changes in riparian use along Warm Springs Creek would further degrade this small riparian zone used by migratory birds.

b. Proposed Action

Under the proposed action, each pasture in Riverside Allotment would receive periodic growing season rest. This type of management would help maintain and/or improve habitat conditions for migratory birds. More widespread livestock distribution would be possible across the Reservoir Pasture if the proposed storage tank, troughs, and pipeline are installed. This would relieve some pressure currently on the few reliable water sources that may be used by migratory birds. The proposed reservoir in the Winnemucca Field would provide an additional water source for migratory birds, as Warm Springs Creek typically dries up sometime in July.

c. Cumulative Effects

Under the no action alternative, cumulative effects would be far reaching. Grazing management that does not allow for periodic growing season rest for rangeland vegetation that may be used by migratory birds would continue to degrade the range, thus providing less desirable habitat and forage for migratory bird needs. In this case, migratory birds would likely move to a more habitable location and avoid this allotment. The proposed action is designed to sustain and/or stimulate rangeland vegetation, provide improved livestock distribution and change timing of grazing use. All these factors would benefit migratory birds and their habitat, while allowing more flexibility in avoiding conflicts with livestock.

3. Noxious Weeds

a. No Action Alternative

Any soil-disturbing activity has potential to create an environment for introduction or establishment of noxious weeds. Under the no action alternative, no range improvements would be implemented, therefore reducing soil-disturbing activities, and limiting possibility of introduction or establishment of noxious weeds. However, livestock congregation areas and poor livestock distribution would also increase potential for noxious weeds to become established.

By not changing grazing management to a system that provides periodic rest to each pasture there is potential for upland condition to be degraded. Medusahead rye is currently present and rapidly spreading throughout the allotment; however, the BLM has very limited tools to effectively manage this noxious weed.

b. Proposed Action

Grazing management which revitalizes and invigorates native species would be beneficial for enhancing weed resistance in this allotment. Grazing management of the proposed action encourages vigor and productivity in native plant communities which would help occupy niches and slow down potential movement of medusahead into those areas.

Again, any soil-disturbing activity has potential to create an environment for introduction or establishment of noxious weeds. Periodic inspections and observations at the project sites would be made following construction to monitor and ensure that new noxious weeds do not become established.

If noxious weeds are found they would be treated using the most appropriate methods available in accordance with the District Noxious Weed Plan. Disturbed areas would be reseeded with a crested wheatgrass mix to discourage establishment of noxious weeds. Crested wheatgrass would be used in the seed mix because it is drought tolerant, competitive with invasive species, has a long seed viability period, and aggressive germination characteristics.

c. Cumulative Effects

Medusahead rye is currently present and rapidly spreading across this allotment. At this time, under either alternative, BLM currently has very limited tools to effectively manage medusahead rye on BLM-managed lands in Oregon. In areas with heavy clay soils, medusahead can and will outcompete mid and late seral species, as well as competitive introduced species such as crested wheatgrass. This may happen under either alternative; however, management actions with the purpose of improving range condition, as described under the proposed action, would slow down potential movement of medusahead.

4. Paleontology

a. No Action Alternative

Paleontology inventories are typically only completed prior to range improvement projects because of budget restraints, therefore, under the no action alternative there would be limited chances of discovering additional paleontological sites.

No new range improvements or changes in grazing management would allow livestock grazing patterns and congregation areas to remain essentially the same within the allotment. If sites are located within congregation areas, they would continue to be affected to some degree by livestock trampling. If sites are not located within or close proximity to congregation areas, trampling effects would be minimal.

b. Proposed Action

Under the proposed action there would be more chance for discovering additional paleontological sites within the allotment because cultural surveys and inventories are typically only completed prior to range improvement projects. Negative effects to paleontological properties during proposed project construction would be mitigated by avoidance or other means.

Changes in grazing management and construction of new water sources that allow for better livestock distribution would in turn put less pressure on current livestock congregating areas and less pressure on paleontological sites that may be present.

c. Cumulative Effects

Completing cultural clearances prior to range improvement construction would allow the BLM to have a greater knowledge base as to where additional paleontological sites may exist. This would also give the BLM opportunity to protect any additional sites if need arises.

5. Special Status Species - Fauna

a. No Action Alternative

Sage-grouse would continue to use the allotment throughout the year; however, current grazing management would continue. The Reservoir Pasture would continue to be grazed annually during the critical growing season and potentially further increasing chances of a downward trend in range condition. Range improvements facilitating distribution and uniform utilization by cattle would not be implemented. Areas of the allotment currently receiving uneven distribution due to lack of reliable water sources would continue to be managed in the same manner. These areas where cattle concentrate typically provide lower quality habitat for sage-grouse.

Redband trout, known to use this stretch of Warm Springs Creek during spring high flow periods, would continue to struggle during their spawning period because the riparian area is lacking sufficient vegetation to capture sediment and dissipate stream energy during a high flow event. If grazing management changes are not made, the increasing poor condition of this stretch may make it unavailable during those periods where redband trout rely on it for spawning upstream.

b. Proposed Action

Proposed changes in grazing management are expected to improve and/or maintain rangeland health in those areas that currently lack growing season rest. The proposed action is designed to improve rangeland health and consequently the quality of sage-grouse habitat. Periodic growing season rest allows for increased forb production, even in areas where crested wheatgrass is seeded. There are no known leks within this allotment, therefore, the placement of these proposed range improvement projects should not interfere with activities at and surrounding lek sites.

The proposed reservoir within the Winnemucca Field would initiate a decrease in grazing pressure along this stretch Warm Springs Creek. Decreasing grazing pressure should result in riparian area improvement. Improved riparian conditions would result in improved redband trout habitat, and therefore, a higher potential for sustaining this population.

c. Cumulative Effects

Cumulative effects of the no action alternative include continuing current livestock management that would make no movement toward meeting standards for sage-grouse and redband trout habitat.

The proposed action includes grazing management that is designed to maintain and/or improve sage-grouse habitat. Proposed range improvement projects would improve distribution and reduce congregation areas in the northern portion of this allotment. After successful completion of these projects, improved habitat connectivity for redband trout and improved habitat for sage-grouse would exist in the foreseeable future.

6. Special Status Species - Flora

a. No Action Alternative

Grazing use in Riverside Allotment should not affect known populations of Malheur prince's plume under this alternative. Early and deferred grazing management utilized in the Ranch and North Slope Pastures favor the growth, flowering and seed dispersal period which is critical for that plant. Perpetual growing season use in the Reservoir Pasture would not favor the population of Biddle's lupine growing there. Lupine plants could be eaten or trampled, depending on the pattern of grazing use by livestock. The graze/defer treatment being used in the Winnemucca Field should benefit the short-lobe beardtongue growing there.

b. Proposed Action

The best mitigation for grazing a pasture containing prince's plume is to graze it after the seed is ripe and has fallen to the ground. The grazing management proposed should provide enough growing season rest to allow plants to complete their life cycle every year. Grazing use under this alternative would not affect Special Status plant species and other rare plant species. Site-specific inventories for Special Status plant species would be completed prior to installation of new range improvement projects.

c. Cumulative Effects

There would be no known cumulative effects of grazing on Malheur prince's plume or short lobed Penstemon in either the proposed action or no action alternatives. Cumulative effects to Biddle's lupine populations from grazing and trampling could be realized in the Reservoir Pasture if yearly growing season use continues. Neighboring allotments currently contain stable populations of Biddle's lupine so the eradication of the plant from the area is not likely.

7. Water Quality

a. No Action Alternative

The no action alternative would allow current management to continue on Warm Springs Creek. Current management has resulted in a Standard Not Met classification for riparian and wetland areas along Warm Springs Creek. Use has often been concentrated within this riparian area resulting in heavily cropped vegetation that does not regrow each season. This often has negative impacts to water quality (e.g., increased sedimentation, reduced thermal buffering capabilities, reduced summer flows.) This grazing management would not improve water quality along Warm Springs Creek.

b. Proposed Action

Developing an alternative water source and fencing most of Warm Springs Creek from livestock use would cause an upward trend in riparian condition. Eventually this would allow for PFC and even Desired Potential Condition (DPC) to be reached. As this process occurs, water quality along this stretch may improve. At the very least, the Rangeland Standard for Water Quality would be reached, as agency actions along this stretch of the creek would no longer directly influence water quality. While stream temperatures may not improve appreciably along this small section of the creek – agency actions in this allotment would contribute to meeting State water quality standards.

If development of a reliable alternative water source is not successful, a portion of the creek would remain fenced and excluded from grazing with the exception of one or two water gaps. Conditions inside the water gaps would be expected to remain the same while effects to water quality along the remainder of the creek would be similar to those potential riparian improvements (e.g., condition, temperature) mentioned above.

There would be no known effects to water quality with implementation of the storage tank, pipelines, and troughs projects in the Reservoir Pasture.

c. Cumulative Effects

No Action:

Effects of continuing current management under the no action alternative would move the stream farther from desired conditions. Upstream of this allotment, Warm Springs Creek is currently above the DEQ's 68 °F temperature standard for salmonid bearing streams. While stream temperatures would not improve under the no action alternative, there would be negligible effects on water temperatures in the Warm Springs Reservoir (which Warm Springs Creek flows into) from temperatures in Warm Springs Creek. Overall, many streams within the Upper Malheur subbasin are above the ODEQ 68 °F temperature. Continuing current management on this creek would be cumulative with degraded water quality found throughout the subbasin.

Proposed Action:

Because Warm Springs Creek flows into Warm Springs Reservoir (192,400 acre feet capacity), cumulative effects of temperatures from Warm Springs Creek in the watershed are undetectable. However, on a subbasin level, the majority of streams are above the 68 °F standard. Contributing to improved water quality on Warm Springs Creek would incrementally improve water quality conditions as a whole within the Upper Malheur subbasin.

8. Wetland and Riparian Zones

a. No Action Alternative

The no action alternative would allow current management to continue on Warm Springs Creek. Current management has resulted in a Standard Not Met classification for riparian and wetland areas along the portion of this creek in Riverside Allotment. According to the 1998 PFC and 2003/2004 observations that rated Warm Springs Creek as Functioning at Risk with upward trend, continuing current management would slowly improve this stretch of stream.

b. Proposed Action

Developing an alternative water source and fencing Warm Springs Creek from livestock use would cause an accelerated upward trend in riparian conditions. Eventually this would allow for PFC and even DPC to be reached.

If development of a reliable alternative water source is not successful, a portion of the creek would remain fenced and excluded from grazing with the exception of one or two water gaps. Conditions inside the water gaps would be expected to remain the same while effects to water quality along the remainder of the creek would be similar to those riparian improvements (e.g., upward trend, PFC, DPC) mentioned above.

There would be no known effects to wetland and riparian zones with implementation of the storage tank, pipelines, and troughs projects in the Reservoir Pasture because they would not be near water sources.

c. Cumulative Effects

No Action:

Effects of continuing current management under the no action alternative would either maintain the stream in a Functioning at Risk category or continue to slowly move in an upward trend toward desired conditions. As a whole, 38 percent of public portions of Warm Springs Creek are classified as Functioning at Risk. Maintaining current conditions along the .6-mile stretch of Warm Springs Creek in Riverside Allotment would contribute to the at-risk portions of the creek.

Proposed Action:

The proposed action would accelerate the upward trend along the .6-mile stretch of Warm Springs Creek in Riverside Allotment and would eventually reach PFC. This would promote a healthy riparian area along most of Warm Springs Creek. Currently, 62 percent of the creek is in PFC. Once the .6-mile stretch in Riverside Allotment becomes PFC, the total portion of the creek at PFC would be 73 percent.

B. Noncritical Elements: No Action, Proposed Action, Cumulative Effects

1. Livestock Grazing Management

a. No Action Alternative

Livestock grazing management would remain the same with no periodic critical growing season rest from livestock grazing provided to key forage plants in some pastures. Current grazing management does not conform to Guidelines for Livestock Grazing Management and is contributing to not achieving Standards for Rangeland Health. There is a lack of water sources available, specifically in the Reservoir Pasture, thus utilization patterns are patchy and would remain so under the no action alternative.

b. Proposed Action

Effects of the proposed action would be centered on improved livestock management. Under this action, grazing management would be adjusted in order to conform to Guidelines for Livestock Grazing Management by providing periodic critical growing season rest from livestock grazing to key forage plants. The proposed grazing management changes and range improvement projects also initiate moving toward achieving Standards for Rangeland Health. With improved grazing management, upland health would be invigorated with native and crested wheatgrass communities that have enhanced weed resistance due to the vigor and productivity of the plants. The proposed waterhole would relieve pressure on Warm Springs Creek by removing livestock use and aid in riparian vegetation recovery. Additional water sources throughout the Reservoir Pasture would cause more uniform utilization patterns and decrease grazing pressure around congregation areas.

c. Cumulative Effects

The no action alternative would continue grazing management that does not improve rangeland vegetation. Grazing management that does not provide periodic critical growing season rest from livestock grazing to key forage plants has potential to degrade vegetative communities and watershed health. This would not only affect available livestock forage but wildlife available forage and habitat as well.

Proposed grazing management adjustments and range improvement projects would allow sustainable livestock use that maintains or improves overall rangeland health. It would also initiate recovery of a riparian area that provides habitat to a Special Status fish species during annual spawning.

2. Social and Economic Values

a. No Action Alternative

With the no action alternative, grazing management on this allotment would continue to be in nonconformance with Guidelines for Livestock Grazing Management. There would be no effort made to provide periodic growing season rest or to construct any of the range improvement projects proposed. Standards would continue to be unachieved while continuing poor livestock distribution. The aforementioned activities under this no action alternative could lead to administrative and ecological consequences, thus affecting both ranches economically. The no action alternative could have an impact on the permittee's ranching livelihood as well as the economy of Harney County.

b. Proposed Action

Implementing the proposed action would result in meeting objectives of this AMP, moving toward meeting Standards for Rangeland Health, and conforming to Guidelines for Livestock Grazing Management. This would result in a continued and viable ranching livelihood for the livestock producers and enhancement of the economy of Harney County.

c. Cumulative Effects

The no action alternative could cause difficulty in authorizing grazing on this allotment while the proposed action would result in a continued ranching livelihood for the livestock producers and would prolong the contribution to the economy of Harney County.

3. Soils

a. No Action Alternative

Damage to soil by erosion events could happen in the Reservoir Pasture or other areas where perennial vegetation has been removed or damaged by grazing use by livestock every year during the growing season. Soils would be compacted in small areas of concentrated use, such as fence corners, watering sites, and salting grounds.

b. Proposed Action

Soil damage would be minimal if vegetation resources are grazed at a time where rest during the growing season is obtained periodically. Soils would be compacted in small areas of concentrated use, such as fence corners, watering sites, and salting grounds.

c. Cumulative Effects

Damage to soil resources could increase over time with adoption of the no action alternative. Perennial vegetation could be permanently removed from sites in the Reservoir Pasture and annuals, such as cheatgrass or medusahead rye would move in and take over the sites. Chances for active surface erosion on those sites would increase. Under the proposed action, grazing is designed to maintain and/or improve plant community condition. Healthy plant communities maintain healthy soil resources and prevent active erosion.

4. Vegetation

a. No Action Alternative

Under the no action alternative no efforts would be made to protect or enhance those vegetative communities such as riparian vegetation along Warm Springs Creek, bluebunch wheatgrass community types, and crested wheatgrass within the Reservoir Pasture. Current grazing practices would remain in nonconformance with Guidelines, and Standards for Rangeland Health would not be achieved.

b. Proposed Action

Under the proposed action plant communities of Riverside Allotment would benefit. Providing offsite water for Warm Springs Creek and fencing most of it from livestock grazing would allow riparian vegetation to recover in that it would have full growth and reproductive cycles annually. Adjusting season of use in the Reservoir Pasture to a defer treatment periodically would give crested wheatgrass a full growth and reproductive cycle before livestock grazing. This would maintain seeded areas in good condition. Providing more widely available water sources would consequently allow for improved livestock distribution and prevent patchy utilization patterns.

c. Cumulative Effects

Proposed adjustments in the grazing management and proposed range improvement projects are intended to improve portions of the vegetative communities within the allotment. Improvement of the riparian community along Warm Springs Creek has potential for providing higher quality habitat for Special Status redband trout during high flow periods as well as contribute to meeting water quality standards. Adjusting season of use in the Reservoir Pasture and providing more widespread available water would, as mentioned above, improve the plant community within this pasture. Improvement of small vegetative communities one by one would improve vegetative communities on a landscape level.

5. Visual Resources

a. No Action Alternative

There would be no impacts to visual resources with the no action alternative. No range improvement projects would be installed.

However, maintenance and improvement of riparian and crested wheatgrass communities of concern would not occur and would further degrade the condition of those communities, thus impairing visual resources of those areas.

b. Proposed Action

The proposed action meets requirements of VRM Class IV. Visual resources would be affected only with the range improvement projects portion of the proposed action. Proposed projects are close to a major road used by recreationists. The water storage tank, troughs, and pipeline system would be seen from this road. Any areas disturbed during project implementation (e.g., waterhole construction, pipeline installation) would be reseeded with a crested wheatgrass and native seed mix. Therefore, visual resources would only be affected for the short term, until the plant mature, on these sections of the projects. However, long-term effects to visual resources would include the storage tank, additional water troughs, the waterhole in the Winnemucca Field and the fence that would exclude livestock from Warm Springs Creek because they would be permanent range improvements. As mentioned before, these projects meet requirements of this VRM class, plus their overall benefit to vegetation communities of this allotment would outweigh their effect on visual resources. Management activities would not dominate the view of the casual observer.

c. Cumulative Effects

There would be no known cumulative effects to visual resources under the no action alternative, with the exception of potential degraded vegetative communities. Management activities should improve the landscape with better range condition in the long term, thus improving this aspect of the visual resources.

6. Wildlife

a. No Action Alternative

Wildlife would continue to use the allotment throughout the year; however, current grazing management would continue in a similar manner. The Reservoir Pasture would continue to be grazed annually during the critical growing season and potentially further increasing chances of a downward trend in range condition. Range improvements facilitating distribution and uniform utilization by cattle would not be implemented. Areas of the allotment currently receiving uneven distribution due to the lack of reliable water sources would continue to be managed in the current manner. These areas where cattle concentrate typically provide lower quality habitat for wildlife.

b. Proposed Action

Proposed changes in grazing management are expected to improve and/or maintain rangeland health in those areas that currently lack growing season rest. Proposed additional water sources within the Reservoir Pasture would aid in better livestock distribution and more uniform utilizations. In general, rangeland health should improve and consequently so would the quality of wildlife habitat. Periodic growing season rest allows for increased forb production, even in areas where crested wheatgrass is seeded, for species such as sage-grouse. Establishment and expansion of noxious weeds, particularly medusahead rye, throughout the allotment could be reduced by encouraging healthy, vigorous native species that are more successful at competing for available resources.

The proposed reservoir within the Winnemucca Field would initiate decreasing grazing pressure along this stretch of Warm Springs Creek. Wildlife species from elk to sage-grouse to migratory birds would benefit from improved riparian condition.

c. Cumulative Effects

Cumulative effects under the no action alternative include livestock management that would remain unchanged for this allotment. Consequently, no movements toward meeting standards in the future would be made and habitats would not be improved. The proposed action takes into consideration grazing management designed to maintain and/or improve wildlife habitat. Proposed range improvement projects would improve distribution and reduce congregation areas in the northern portion of this allotment. After successful completion of these projects, higher quality habitat for wildlife would develop.

7. Recreation

a. No Action Alternative

Under the no action alternative, possible impacts to recreation would be similar to those for visual resources management. If no range improvement projects are completed, upland and riparian health in those areas of concern would not be maintained or improved, therefore, degrading the visual resource value on a landscape level for recreationists. If current management continues the quality of wildlife habitat would decrease, thus affecting hunting and wildlife viewing opportunities in the area.

b. Proposed Action

Under the proposed action there would be minimal impacts to recreation overall. During implementation periods for range improvement projects there may be increased traffic from heavy equipment on roadways that may minimally affect recreation. The proposed pipeline would cross the Warm Springs Reservoir road approximately two times; construction would cause short delays to travelers. There would be no impacts under the proposed action alternative to primitive camping activities that occur from implementing range improvement projects. Under the proposed management vegetation communities are anticipated to improve, thus improving wildlife habitat and in turn, hunting and wildlife viewing opportunities.

c. Cumulative Effects

There would be no known cumulative effects to recreation under the no action alternative, with the exception of potential degraded wildlife habitat and, therefore, decreased hunting opportunities. No known negative impacts to recreation would occur under the proposed. The proposed action is expected to improve the rangeland condition in the allotment, thus improving wildlife habitat, wildlife viewing, and hunting opportunities.

C. Cumulative Effects - Addendum

As the Council on Environmental Quality (CEQ), in guidance issued on June 24, 2005, points out, the "environmental analysis required under NEPA is forward-looking," and review of past actions is required only "to the extent that this review informs agency decision-making regarding the proposed action." Use of information on the effects on past action may be useful in two ways according to the CEQ guidance. One is for consideration of the proposed action's cumulative effects, and secondly as a basis for identifying the proposed action's effects.

The CEQ stated in this guidance that "[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." This is because a description of the current state of the environment inherently includes the effects of past actions. The CEQ guidance specifies that the "CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions." Our information on the current environmental condition is more comprehensive and more accurate for establishing a useful starting point for a cumulative effects analysis, than attempting to establish such a starting point by adding up the described effects of individual past actions to some environmental baseline condition in the past that, unlike current conditions, can no longer be verified by direct examination.

The second area in which the CEQ guidance states that information on past actions may be useful is in "illuminating or predicting the direct and indirect effects of a proposed action." The usefulness of such information is limited by the fact that it is anecdotal only, and extrapolation of data from such singular experiences is not generally accepted as a reliable predictor of effects.

However, "experience with and information about past direct and indirect effects of individual past actions" have been found useful in "illuminating or predicting the direct and indirect effects" of the proposed action in the following instances: the basis for predicting the effects of the proposed action and its alternatives is based on the general accumulated experience of the resource professionals in the agency with similar actions.

CHAPTER V: PERSONS, GROUPS, AND AGENCIES CONSULTED

Oregon Department of Fish and Wildlife
Second Oregon LLC, Permittee
Monte Siegner, Permittee
Warm Springs Irrigation District, Tony Dixon

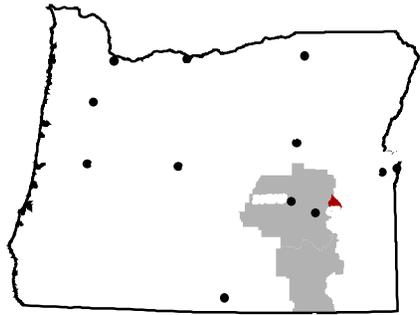
CHAPTER VI: PARTICIPATING STAFF

Bill Andersen, District Range Management Specialist
Jim Buchanan, Supervisory Natural Resource Specialist
Lindsay Davies, Fishery Biologist
Gary Foulkes, District Planning/Environmental Coordinator
Terri Geisler, District Geologist
Rick Hall, Natural Resource Specialist (Botany)
Doug Linn, Fire Botanist
Fred McDonald, Natural Resource Specialist (Recreation and Wilderness)
Nick Miller, Wildlife Biologist
Lisa Norfolk, Rangeland Management Specialist (Lead Preparer)
John Petty, Civil Engineering Technician
Skip Renschler, District Lands and Realty Specialist
Lesley Richman, District Weed Coordinator
Scott Thomas, District Archaeologist

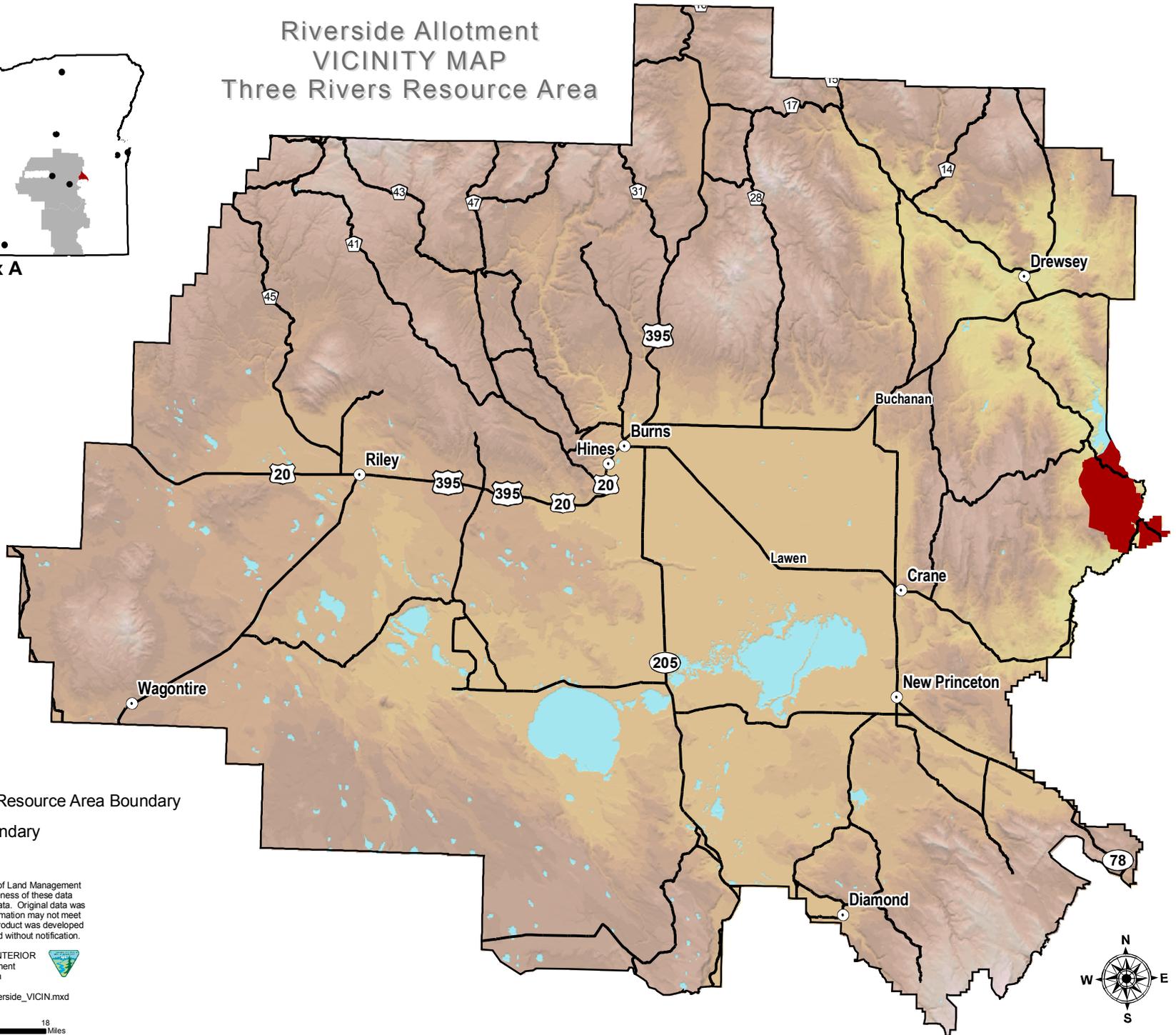
CHAPTER VII: APPENDICES

Appendix A - General Location Map
Appendix B - Pastures/Ownership Map
Appendix C - Existing and Proposed Range Improvements Map
Appendix D - Grazing Treatment Descriptions
Appendix E - Grazing Schematics Map

Riverside Allotment VICINITY MAP Three Rivers Resource Area



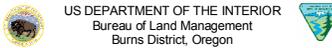
Appendix A



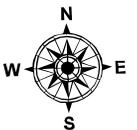
Legend

-  Three Rivers Resource Area Boundary
-  Allotment Boundary

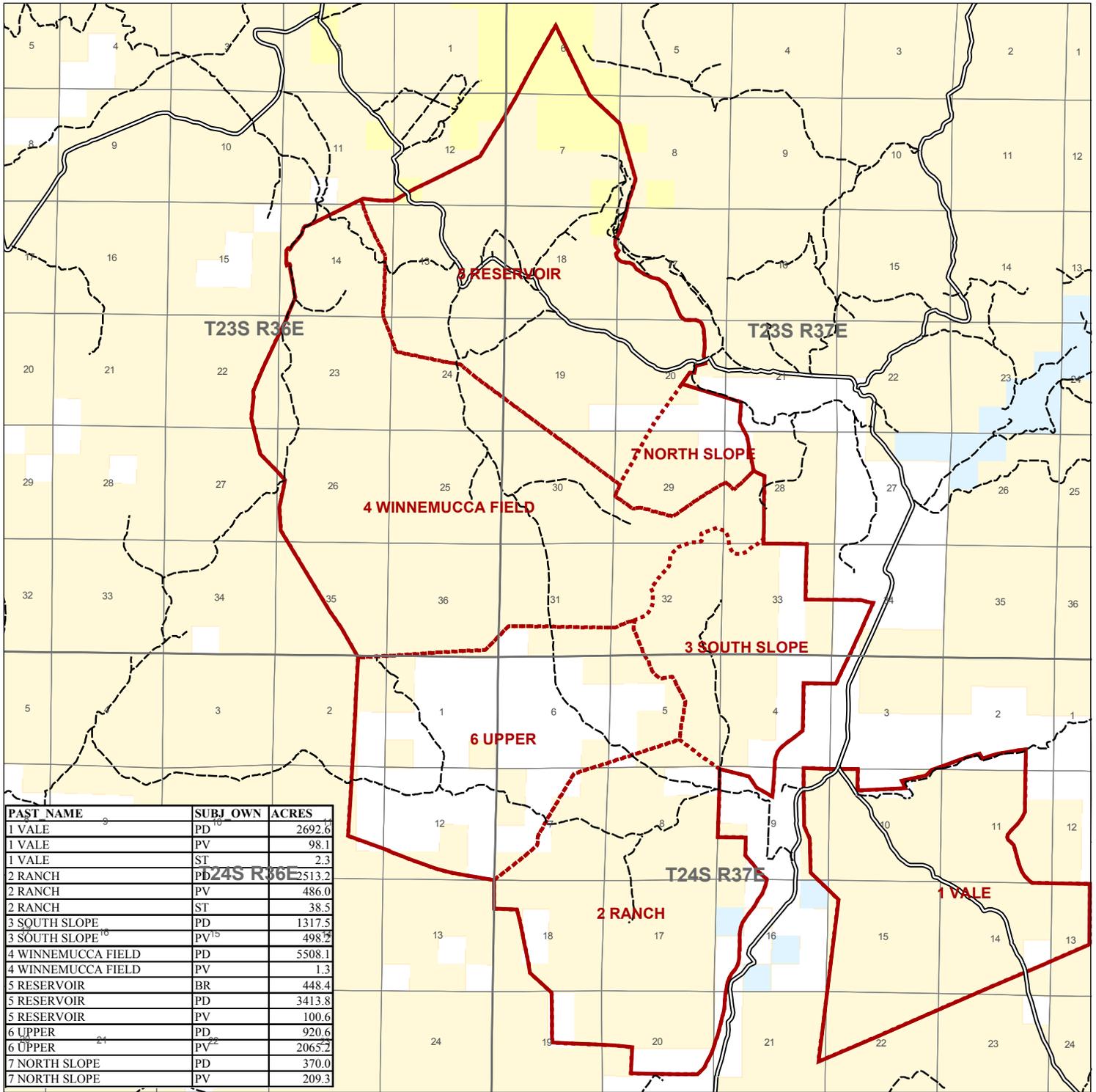
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Riverside Allotment LAND STATUS



PAST NAME	SUBJ OWN	ACRES
1 VALE	PD ¹⁰	2692.6
1 VALE	PV	98.1
1 VALE	ST	2.3
2 RANCH	PD ^{24S R36E}	2513.2
2 RANCH	PV	486.0
2 RANCH	ST	38.5
3 SOUTH SLOPE	PD	1317.5
3 SOUTH SLOPE ¹⁰	PV ¹⁵	498.2
4 WINNEMUCCA FIELD	PD	5508.1
4 WINNEMUCCA FIELD	PV	1.3
5 RESERVOIR	BR	448.4
5 RESERVOIR	PD	3413.8
5 RESERVOIR	PV	100.6
6 UPPER	PD	920.6
6 UPPER	PV ²²	2065.2
7 NORTH SLOPE	PD	370.0
7 NORTH SLOPE	PV	209.3

- Legend**
- Allotment Boundary
 - Pasture Boundary
 - Land Administration**
 - Bureau of Land Management
 - State
 - Bureau of Reclamation
 - Private
 - Paved Road
 - Non-Paved Improved Road
 - Primitive or Unknown Road Condition



Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

US DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Burns District, Oregon

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Riverside Allotment RANGE IMPROVEMENTS

Appendix C

Legend

Existing Improvements

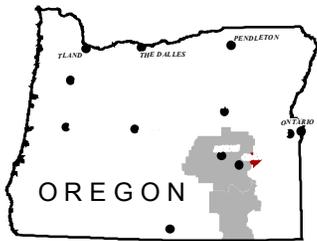
- RESERVOIR
- SPRING
- FENCE

Proposed Projects

- RESERVOIR
- TANK
- TROUGH
- FENCE
- PIPELINE
- Trend Sites
- Allotment Boundary
- Pasture Boundary
- Paved Road
- Non-Paved Improved Road
- Primitive or Unknown Road Condition

Land Administration

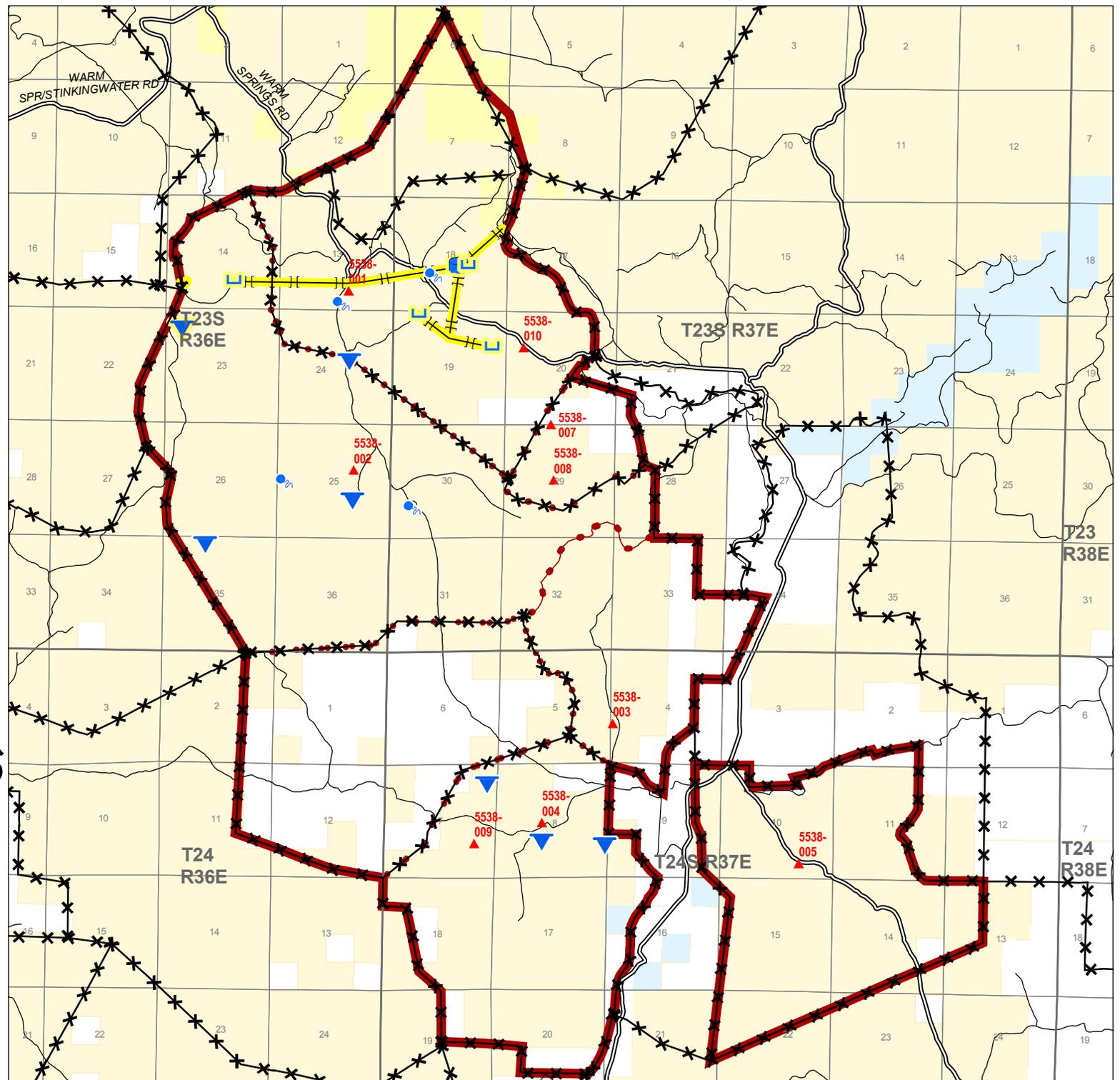
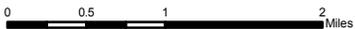
- Bureau of Land Management
- State
- Bureau of Reclamation
- Private



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Burns District, Oregon

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APPENDIX D

Grazing Treatment Descriptions

Early - (approximately 03/01 to 04/30) - This treatment provides the plants an opportunity to recover after utilization of early plant growth. By removing livestock before all spring and summer precipitation occurs, the plants will be able to store carbohydrates, set seed, and maintain their vigor. This "Early" treatment can be used every year with little effect on the plant.

The dates of April 1 to April 30 are a guideline for the "Early" treatment. Early use must take place before grass plants are in the boot stage. There must also be enough soil moisture in the ground to provide for regrowth after grazing. Therefore, flexibility in the early treatment will allow for use prior to April 1 but generally not after April 30, and will depend on climate.

Graze - (approximately 05/01 to 07/01-15) - This treatment allows for grazing during the critical growth period of most plants. Carbohydrate reserves are continually being utilized because the green parts of the plant are constantly being removed by livestock. The pastures that are under the "Graze" treatment will generally experience some other treatment the following year so as not to repeat graze treatments.

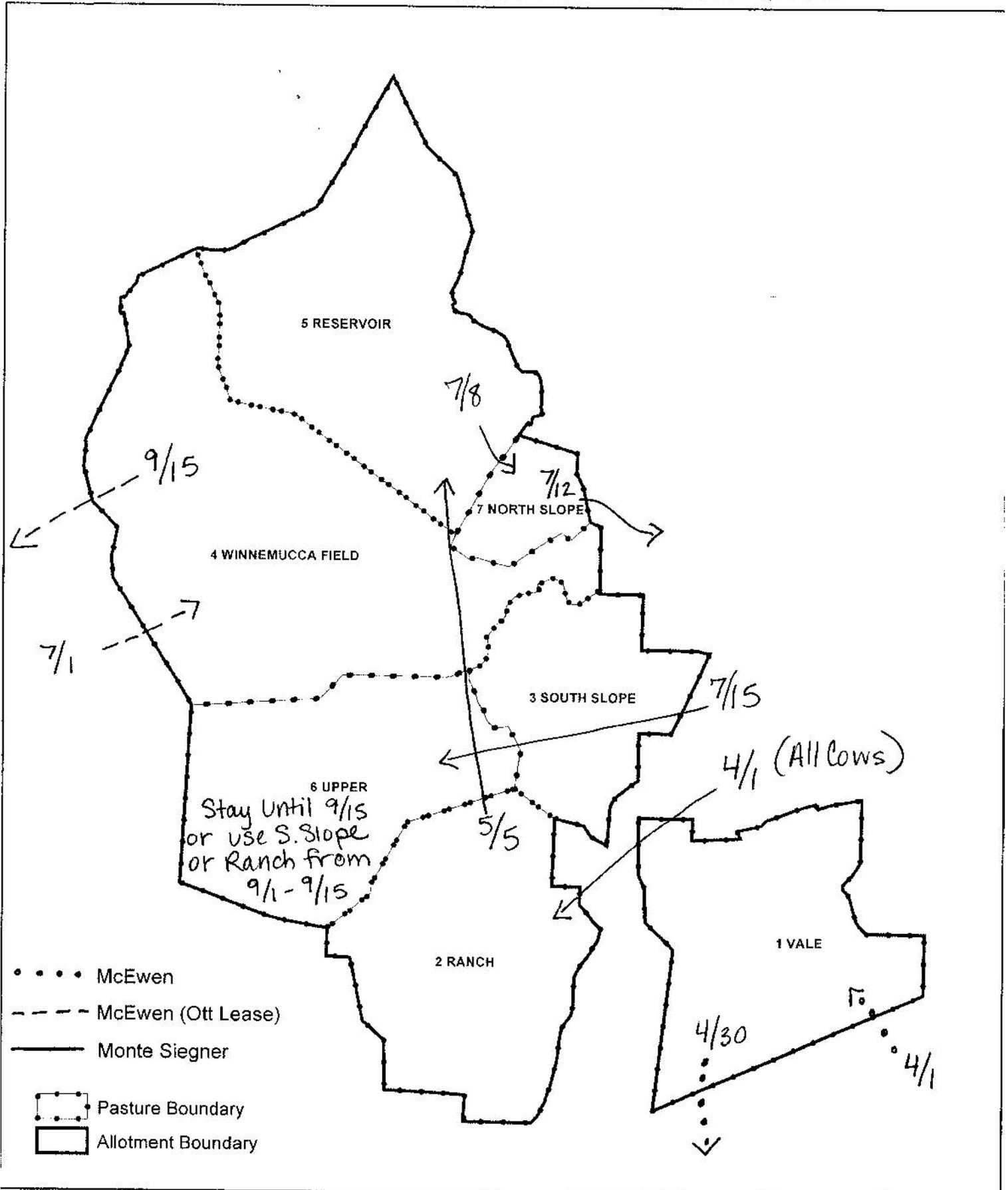
Defer - (approximately 07/01-15 to 10/31) - Grazing during this treatment will not begin until after most plants have reached seed ripe and have stored adequate carbohydrate reserves. This treatment will assist in meeting the objectives by providing all plants an opportunity to complete their life cycles and produce the maximum amount of cover and forage.

Winter - Grazing during this treatment will occur when most plant species are dormant. Most plants will have completed their life cycles and stored maximum carbohydrates for the next growing season.

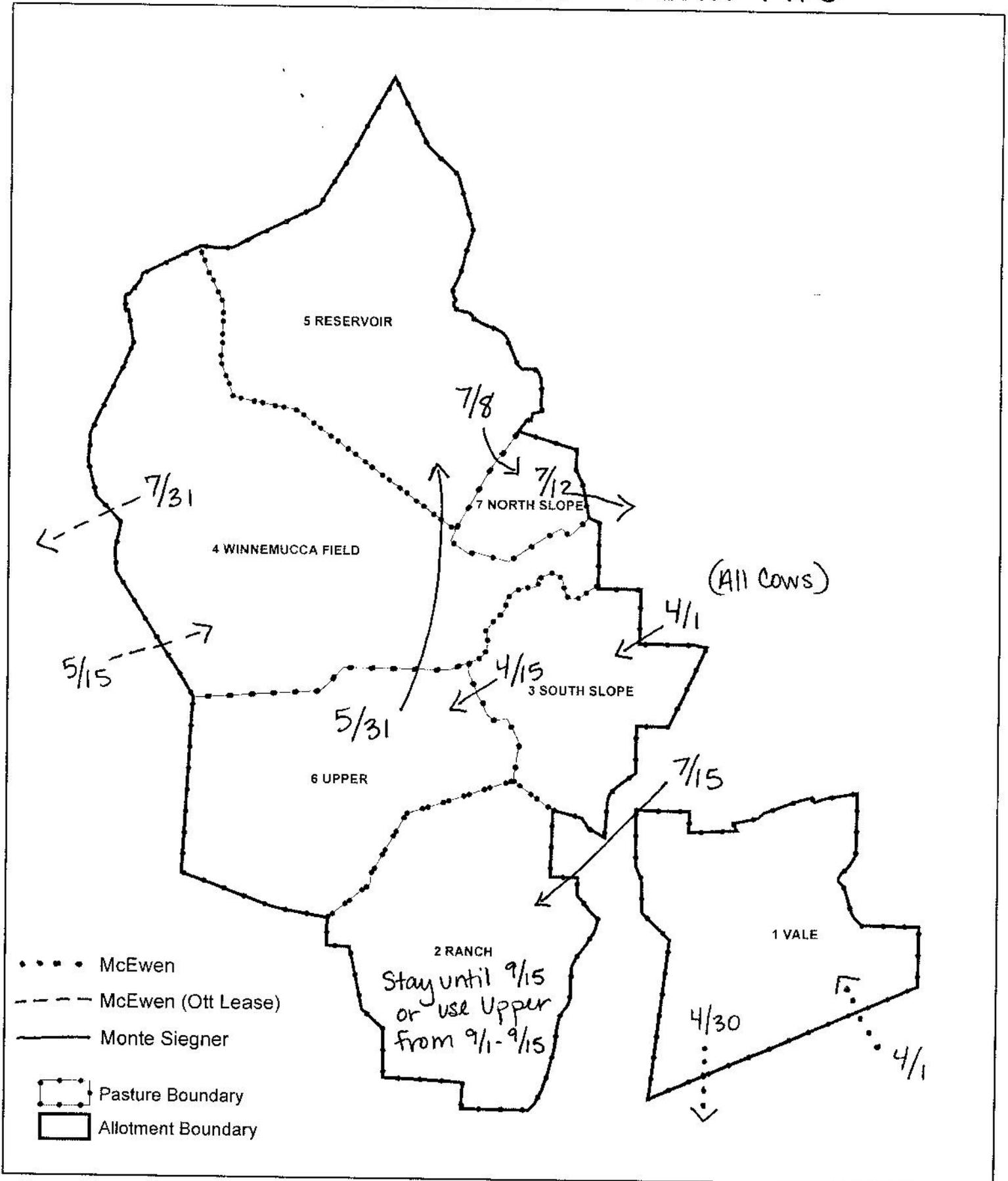
Rest - This treatment provides the plants a full year of growth in the absence of grazing. They are allowed to store maximum carbohydrate reserves, set seed, and provide carryover herbage for the following year's turn out.

These dates are approximations based on general plant phenology. Year-to-year variation in phenology will occur based on climatological phenomena.

Riverside Allotment #5538 GRAZING SCHEMATIC - YEAR ONE



Riverside Allotment #5538 GRAZING SCHEMATIC - YEAR TWO



Riverside Allotment #5538 GRAZING SCHEMATIC - YEAR THREE

