

WHITE PINE CONSERVATION DISTRICT RESOURCE NEEDS ASSESSMENT

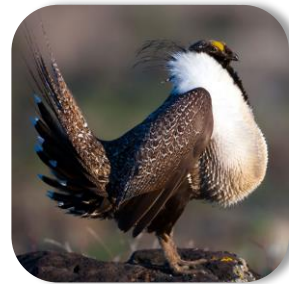


Photo collage courtesy of Basin & Range Resources, Nevada Bureau of Land Management, Nevada Dept. of Wildlife, Mike Sevon Photography, and Reno Gazette Journal.

Developed in cooperation with the White Pine Conservation District and partnering local governing entities and non-governmental organizations & individuals supporting sustained multiple-use resource management initiatives on private and public lands.

June 30, 2019, Basin and Range Resources

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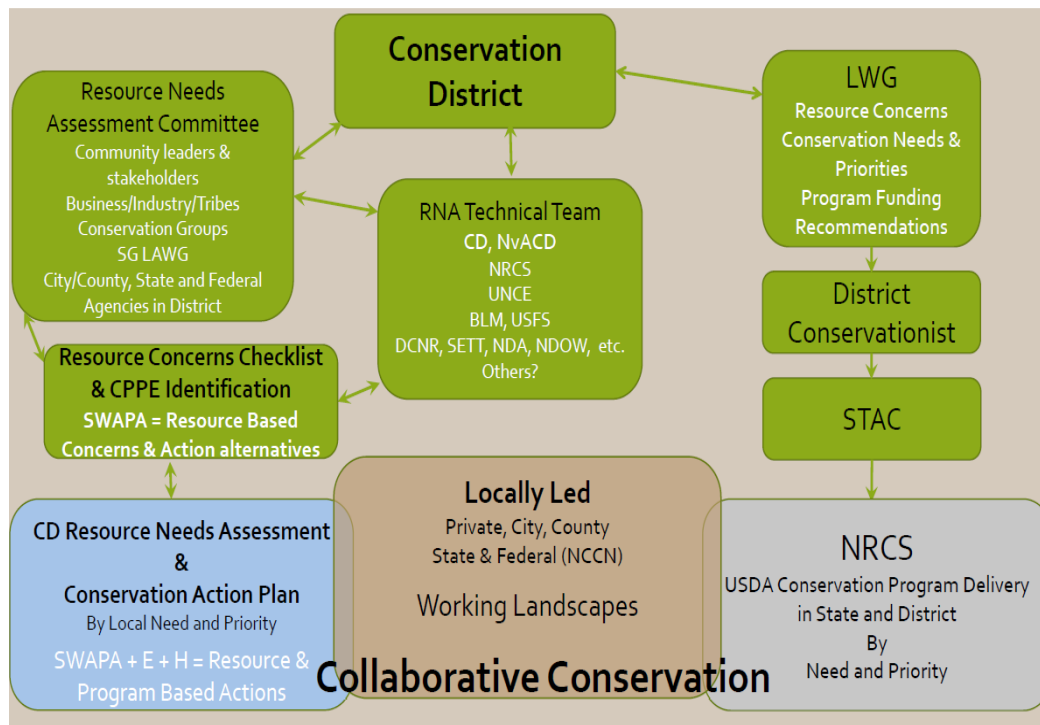
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EXECUTIVE SUMMARY

Throughout White Pine County increased demands are placed upon our renewable and non-renewable resources. The need for local leadership in natural resources management was an important factor leading to the establishment of conservation districts nearly 80 years ago. Conservation Districts were founded on the philosophy that conservation decisions should be made at the local level. The fundamental requirement for Locally Led “Resource Based” conservation is the development of current Resource Needs through a Needs Assessment and analysis. The process utilizes the NRCS Resource concerns inventory approach which is resource driven rather than program driven. This process will generate input for Local Work Groups to provide recommendations to the NRCS State Technical Advisory Committee and ultimately assist coordination and cooperation with federal, state and local agencies with planning and implementation initiatives in White Pine County.

Resource Needs Assessment Process



Abbreviated RNA process:

District: Stakeholder input and participation

- Identify, Analyze, Map – Resource Concerns
- Identify stakeholder conservation priorities and objectives (Survey Instrument)
- Identify and analyze potential conservation practices (CPPE)

District: Board of Supervisors

- Develop Conservation Action Plan
- Implement Conservation Action Plan and inform STAC process for NRCS funding and project priorities
- Review and adjust as necessary (3-5 years)

Purpose of the Resource Needs Assessment:

- Ensure that conservation efforts address the most important local resource needs.
- Basis for selecting the type and extent of needed conservation systems and practices.
- Basis for making recommendations on funding priorities and priority areas to be addressed.
- The needs assessment and Conservation Action Plan are the foundation for carrying out Federal programs and establish USDA program delivery priorities.
- The needs assessment may help assist localities in implementing the many State, Tribal and local programs that provide assistance to private land owners and managers.

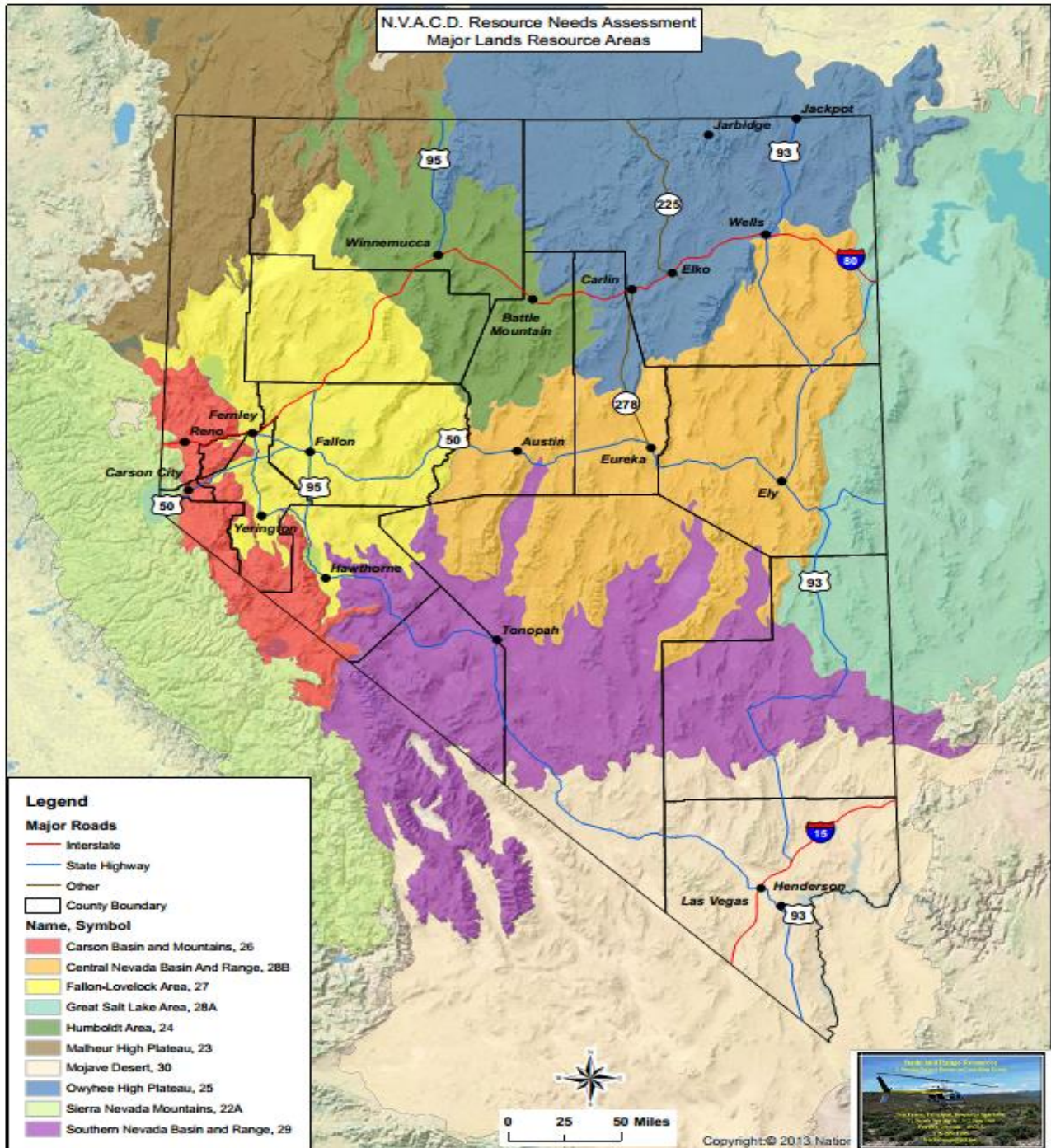
Detailed information about the RNA process can be found on the Nevada Association of Conservation Districts Website at <http://www.nvacd.org/> under the Resource Needs Assessments tab. Resource Concerns Descriptions: <http://nvacd.org/wp-content/uploads/2018/09/Resource-Concerns-descriptions-by-NRCS.pdf>

In 2019 a contract for the services of Jim Evans (Basin and Range Resources) was completed to provide technical support to complete a Resource Needs Assessment (RNA). Deliverables included:

- Compile applicable data and information from agency and local sources.
- Complete the NRCS Resource Concerns Checklist by means best suited to that CD; explanation of terms to laymen participating; compilation of information gathered; providing any training needed of the process to the CD to obtain the best information.
- Run the results through the Conservation Practice Physical Effects Matrix (CPPE) and,
- Aggregate the data, results, and analyses obtained from the checklist, CPPE, survey, public meetings and any other information obtained by the CD into a completed RNA document.

Throughout the northern Nevada's Great Basin comprising major land resource areas 24, 25, 28A & 28B the primary resource concerns are typically associated with five (5 ea.) land uses; irrigated cropland served by center pivot & wheel line systems, flood irrigated pasture/hay land (perennial stream-fed), improved rangeland seeding (private & public lands), native rangeland/watersheds (private & public lands) and abandoned farm/agricultural lands. The NRCS Conservation Practice Physical Effects Matrix tool summarizes integral conservation practice and management applications to address primary resource concerns associated with these land uses. For a complete listing of NRCS conservation practice standards & specifications reference the NRCS National Handbook of Conservation Practices (NHCP, 2019) https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/technical/cp/ncps/?cid=nrcs143_02684_9

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050898.pdf. White Pine County comprises major land resource areas 28A and 28B. (See appendix I for description of physiographic and climatic features).



Map 1-1

IDENTIFIED RESOURCE CONCERNS

Table 1-1 summarizes the primary resource concerns inventory, evaluations and discussion commentary developed by the localized focus group.

RESOURCE CONCERN	RESOURCE CONSERVATION & MANAGEMENT CONSIDERATIONS
Insufficient Water – Moisture Management and Inefficient Use of Irrigation Water	Improve irrigation efficiency and soil health in order to sustain/balance ground water basin aquifer and stabilize producer economic viability. Restrict out-of-basin water transfer in order to sustain balanced water basins (re-charge versus discharge).
Soil Erosion – Sheet, Rill and Wind. Soil Quality Degradation – Crop, Pasture and Rangeland.	Improve upland ecological condition to enhance watershed dynamics for multiple uses (livestock, wildlife and recreation). Increase primary focus on soils as the foundation to address and resolve, holistically, many resource concerns/issues.
Degraded Plant Condition – Plant Pests	Increase efforts and efficiency in combating annual noxious/invasive species resulting from wildfire. Identify areas to create critical vegetative treatment buffer zones in order to retard fire spread and protect habitat.
Livestock Production Limitation – Feed and Forage	Increase distribution of water sources and promote grazing management flexibility on public lands (AMP's/Permit Renewals). Manage wild horse populations at AML to promote multiple use and management on public lands.
Human – Capacity	<ul style="list-style-type: none"> ➤ Educate and empower entities to actively participate in and fund conservation programs: especially the entities affected by natural resource management on both private and public lands. ➤ Ensure capacity to implement and follow through with action plans; Implement and monitor & evaluate. ➤ Promote holistic management across jurisdictional boundaries – landscape/watershed ecological processes and system health.

Table 1-1

The resource concerns assessment describes prioritized issues brought forth by the diversified focus group who participated in the natural resource discussions conducted during 2018 and 2019.

SOILS:

- Soil Erosion - sheet, rill and wind erosion throughout White Pine County.

Rangelands

- ✓ PJ and brush encroachment negatively impact herbaceous cover and production leading to de-stabilized soils. Post fire cheatgrass and noxious/invasive weed invasion further inhibits perennial re-establishment and induces sustained soil erosion.

Croplands

- ✓ Fallowed cropland and or abandoned farmland lacking protective cover induces sheet, rill, gully, and wind erosion with compaction in the upper 'A' horizon. This impact is more so elevated on the steeper alluvial fans and piedmonts where slope conditions exceed 1 to 2% gradient. Abandoned farmlands are highly susceptible to noxious/invasive weed propagation further promoting destabilized soil conditions with inadequate root structure.

- Soil Erosion - concentrated flow erosion throughout White Pine County.

Rangeland Watershed

- ✓ De-stabilized gullies progressively enlarge as a result of head-cutting and lateral widening. Many of these watersheds are impacted by post-fire cheatgrass and noxious weed invasion which has created soil instability. These annual plant communities also catalyze large catastrophic fire regimens with rapid spread capability.

- Soil Quality Degradation - Crop, Pasture and Rangeland throughout White Pine County.

Organic matter depletion

- ✓ Cropland - Soil disturbance resulting from intensive tillage systems leading to low crop biomass (surface and subsurface) and the burning, harvesting or otherwise removal of crop residue.
- ✓ Rangeland - Excessive grazing by feral horses and improper grazing management flexibility due to restrictive grazing schedules on public lands. Inadequate water distribution with limited improvement/development potential creating intensive use zones particularly within small riparian reaches.

WATER:

- Insufficient Water - Inefficient Moisture Management, county wide with emphasis in irrigated basins.

Cropland

- ✓ Excess soil tillage and disturbance impairs soil structure, water holding capacity and permeability through loss of organic matter.
- ✓ Irrigation pumping plants, irrigation wells and sprinkler systems require sustained O&M and potential modification or replacement in order to maximize irrigation application efficiencies.
- ✓ Irrigation water management technology with soil moisture monitoring is a critical component required to achieve optimal gross/net water application throughout the irrigation season.
- ✓ Hydro-Basins require intensified monitoring and management in order to balance ground water recharge with consumptive use and discharge for domestic/commercial use.

Rangeland

- ✓ Excessive shrub & tree cover creates competition for available moisture required to sustain desirable plant community (eco-site) herbaceous understory. Noxious/invasive species propagation can be catalyzed within these communities when impacted by wild fire.
- Quality
 - ✓ Water quality is very important relative to maintaining optimal standards for municipal domestic supply, agricultural/commercial use and watershed habitats (surface & sub-surface).

AIR:

- Air Quality Impacts - particulate matter, county wide.
 - ✓ Fallowed farmlands and abandoned farmlands without adequate ground cover create dust impairment and loss of top-soil.
 - ✓ Rangelands incapable of native perennial herbaceous regeneration after wild fire are subject to noxious/invasive species competition leading to destabilized soils.
 - ✓ Commercial/Industrial developments & operations require monitoring & management initiatives to minimize particulate matter, dust concentration that effects human health & adjacent habitat regimens.

PLANTS:

- Degraded Plant Condition - Structure and Composition, county wide.
Rangelands
 - ✓ Plant stress, disease and mismanagement of plant communities reduces and/ or eliminates key species and functional components of the eco-type.
 - ✓ Plant communities (eco-types) that transition to a late successional stage cannot sustain optimal habitat conditions for a diverse wildlife and insect biota.
 - ✓ Invasive plant species outcompete desired plant communities and create a monoculture. Normalized fire cycle and intensity cannot be achieved or managed within these converted plant communities (annual monoculture).

- Degraded Plant Condition - Wildfire Hazard, county wide.
Rangelands
 - ✓ Unbroken expanses of flammable biomass increase the risk of wildfire spread.
 - ✓ Lack of, or implementation of, an effective plan to respond and treat wild fire increases risk to life and property.

- Degraded Plant Condition - Plant Pests, county wide.
Rangelands
 - ✓ Weeds and invasive species can outcompete native plant communities and create monocultures with degraded habitats and or loss of habitat. Monocultures further increase the opportunity for uncontrolled wildfire spread.

ANIMAL:

- Livestock Production Limitation - Feed and Forage - Livestock Water, county wide.
Rangelands
 - ✓ Inadequate distribution of livestock grazing as influenced by poor water distribution and the inability to execute grazing management flexibility with the permitting process.
 - ✓ Inadequate/poor forage quality due to excessive woody encroachment impacting the herbaceous understory.
 - ✓ Invasive and noxious weed encroachment.
 - ✓ Excessive wild/feral horse populations are negatively impacting plant communities and rangeland health both inside and outside the HMA's. Spring/riparian zones are destroyed by wild/feral horses.

➤ Inadequate Habitat for Fish and Wildlife - Habitat Degradation, county wide.
Rangelands

- ✓ Loss of habitat due to fire and invasive species encroachment (Cheatgrass and PJ).
- ✓ Loss of critical bitterbrush habitat communities.
- ✓ Proper function and condition of riparian zones, perennial streams and watershed, extremely difficult to sustain in unstable reaches impacted by degraded soil & plant communities.
- ✓ Species of concern and threatened & endangered species include the Greater Sage Grouse, Bonneville Cutthroat Trout and Lahontan Cutthroat Trout. These species are reliant upon optimal upland and riparian habitat conditions.

HUMAN:

➤ Cropland Productivity and Sustainability, county wide irrigated basins.

- ✓ Limited alternative cropping systems are adapted to our climate and distance to market. Costs associated with equipment re-tooling limits potential conversion to alternative cropping systems.
- ✓ Decreasing water supply within the hydro-basin will impact production potential and may catalyze change in land use.

➤ Abandoned Agricultural Lands.

Basin ground water management planning focuses on cropping system modifications and changes in agricultural land use to reduce gross ground water consumption in order to sustain basin re-charge. Management concerns on abandoned farm land prioritize conservation cover to stabilize top-soil and control rodent populations.

➤ Habitat Loss and Fragmentation for Wildlife.

- ✓ Land use can negatively affect wildlife migration corridors. Additionally excessive removal of tree/shrub cover components can negatively impact thermal protection zones.

➤ Land Use Planning & Development.

- ✓ Desires for community expansion are sometimes not based on available resources for sustained growth, in example an inadequate water supply. At times outside special interests and non-governmental organizations promote ideals that are counter-productive to local conservation initiatives, i.e. preservation versus conservation. Out-of-basin water transfers require thorough evaluation to evaluate potential impacts on water supply and effected habitat regimens.
- ✓ Many fire start-ups are a result of the human interface. Awareness and or lack thereof is a significant problem.

- ✓ With a growing recreational populous protective measures must be considered to sustain sensitive habitats and provide opportunities for quality experiences on public and municipal lands.

➤ Capacity

- ✓ Lack of human and financial capacity to implement plans and projects to address conservation issue.
- ✓ Lack of capacity to search for and acquire funding for planning and implementation for both existing and new planning initiatives.
- ✓ Lack of technical expertise to utilize and implement NRCS programs (staffing).
- ✓ Lack of holistic collaborative/cooperative conservation program deployment as inhibited by jurisdictional boundaries and agency program policy. Team participants should comprise local, state and federal partners to address prioritized resource concerns.

Conservation Practice Selection Tool – NRCS Conservation Practice Physical Effects

The Natural Resources Conservation Service (NRCS) utilizes a modeling tool matrix analysis to evaluate long term effects relative to implementing a host of conservation management and/or structural conservation practices to address resource concerns associated with a variety of land uses (NHCP, 2019). As an example to address soil health and water quantity problems for irrigated cropland the standard conservation practices considered may include irrigation system improvements, a modification of the cropping system rotational sequence and potentially implementing pest management strategies to curtail or minimize invasive weed impacts. The following NRCS conservation practice listing identifies standard localized practices utilized to address primary resource concerns within major land resource areas 28A and 28B.

Table 2-1. Standard Conservation Practices for Irrigated Cropland, Irrigated Pasture & Hay land, Improved Rangelands seeding, and Native Rangelands/Watersheds in Major Land Resource Areas 28A & 28B.

Cons Practice	ID	Cons Practice	ID	Cons Practice	ID	Cons Practice	ID	Cons Practice	ID	Cons Practice	ID
Brush Management	314	Forage and Biomass Planting	512	Irrigation Land Leveling	464	Pond	378	Salinity and Sodic Soil Management	610	Tree/Shrub Site Preparation	612
Channel Bed Stabilization	584									Tree/Shrub Pruning	660
Clearing & Snagging	326	Forage Harvest Management	511	Irrigation Pipeline	430	Pond Sealing or Lining, Compacted Soil Treatment	520	Sediment Basin	350	Upland Wildlife Habitat Management	645
Conservation Cover	327	Fuel Break	383	Irrigation Reservoir	436	Pond Sealing or Lining, Concrete	522	Spring Development	574	Watering Facility	614
Conservation Crop Rotation	328	Grazing Land Mechanical Treatment	548	Irrigation System, Micro irrigation	441	Pond Sealing or Lining, Flexible Membrane	521 A	Sprinkler System	442	Water Harvesting Catchment	636
Constructed Wetland	656	Groundwater Testing	355	Irrigation System, Surface & Subsurface	443	Precision Land Forming	462	Storm water Runoff Control	570	Water and Sediment Control Basin	638
Cover Crop	340	Herbaceous Weed Control	315	Irrigation System, Tail water Recovery	447	Prescribed Burning	338	Stream Crossing	578	Water spreading	640
Critical Area Planting	342	Herbaceous Wind Barriers	603	Irrigation Water Management	449	Prescribed Grazing	528	Stream Habitat Improvement and Management	395	Water Well	642
Dam	402	Firebreak	394	Land Reclamation, Landslide Treatment	453	Pumping Plant	533	Streambank and Shoreline Protection	580	Well Decommissioning	351
Dam, Diversion	348	Forage and Biomass Planting	512	Land Smoothing	466	Range Planting	550	Structure for Water Control	587	Wetland Creation	658
Diversion	362	Forage Harvest Management	511	Lined Waterway or Outlet	468	Residue and Tillage Management, No Till	329	Structures for Wildlife	649	Wetland Enhancement	659
Early Successional Habitat Development/Mgt.	647	Integrated Pest Management	595	Livestock Pipeline	516	Residue and Tillage Management, Reduced Till	345	Subsurface Drain	606	Wetland Wildlife Habitat Management	644
Farmstead Energy Improvement	374	Irrigation Canal or Lateral	320	Livestock Shelter Structure	576	Restoration and Management of Rare or Declining Habitats	643	Surface Drainage, Field Ditch	607	Wetland Restoration	657
Fence	382	Irrigation Ditch Lining	428	Nutrient Management	590	Riparian Forest Buffer	391	Surface Drainage, Main or Lateral	608	Windbreak/Shelterbelt Establishment	380
Firebreak	394	Irrigation Field Ditch	388	Open Channel	582	Riparian Herbaceous Cover	390	Tree/Shrub Establishment	612	Windbreak/Shelter belt Renovation	650

Figure 2-1. Irrigated Crop Lands Resource Concerns and Conservation Practice Physical Effects.

Conservation Practice Selection Tool - Irrigated Cropland Major Land Resource Areas 28A & 28B White Pine County							
Use the CPPE to recommend practices that address the resource concerns: Enter the CPPE minimum acceptable "effect" value (1-5): 1 Select the "Run" button to view recommended practices for each resource concern (equal to or greater than the minimum acceptable value) Place an "x" to the left of the practice that may be included in the conservation plan. Select the "Sort" button to list selected practices at top of column, and "Results" for final report.		Land uses alfalfa hay, alfalfa-grass hay, grass hay, and small grains in rotation. Potential enhancements/conservation & management practice applications include well rehab or new construction, sprinkler system installation, critical area planting, and management practices irrigation water mgt., nutrient mgt., conservation crop rotation/forage harvest mgt., residue/tillage management-reduced till, integrated pest mgt., and pest mgt.. Primary resource concerns address soil wind erosion, soil quality degradation-organic matter depletion, soil quality degradation-compaction, insufficient water-inefficient use of irrigation water, insufficient water-inefficient moisture management, degraded plant condition-undesirable plant productivity & health, and degraded plant condition-excessive plant pressure.					
Soil Erosion - Wind Erosion	Soil Quality Degradation - Organic Matter Depletion	Soil Quality Degradation - Compaction	Insufficient Water - Inefficient Use of Irrigation Water	Insufficient Water - Inefficient Moisture Management	Degraded Plant Condition - Undesirable Plant Productivity and Health	Degraded Plant Condition - Excessive Plant Pest Pressure	
x Windbreak/Shelterbelt Establishment	x Residue and Tillage Management, Reduced Till	x Residue and Tillage Management, Reduced Till	x Water Well	x Residue and Tillage Management, Reduced Till	x Nutrient Management	x Sprinkler System	
x Sprinkler System	x Nutrient Management	x Forage Harvest Management	x Sprinkler System	x Forage Harvest Management	x Irrigation Water Management	x Irrigation Water Management	
x Irrigation Water Management	x Irrigation Water Management	x Conservation Crop Rotation	x Irrigation Water Management	x Conservation Crop Rotation	x Irrigation System, Surface & Subsurface	x Irrigation System, Surface & Subsurface	
x Irrigation System, Surface & Subsurface	x Forage Harvest Management		x Irrigation System, Surface & Subsurface		x Forage Harvest Management	x Conservation Crop Rotation	
x Integrated Pest Management	x Critical Area Planting		x Forage Harvest Management		x Conservation Crop Rotation	x Integrated Pest Management	
x Forage Harvest Management	x Conservation Crop Rotation		x Conservation Crop Rotation				
x Critical Area Planting							
x Conservation Crop Rotation							

Figure 2-2 . Flood Irrigated Pasture Lands Resource Concerns and Conservation Practice Physical Effects .

Conservation Practice Selection Tool - Surface Flood Irrigated Pasture/Hayland MLRA's 28A & 28B - White Pine County CD											
Use the CPPE to recommend practices that address the resource concerns: Enter the CPPE minimum acceptable "effect" value (1-5):											
		1		Land use irrigated pasture/hayland utilizing surface flood irrigation system. Many of these types of pastures are fed by perennial stream sources and require water control structural practices and field ditch conveyance systems to adequately distribute irrigation water. Additional conservation practices required to facilitate pasture and hayland production and stabilization may include livestock watering systems, fencing, grading & shaping, stream bank protection and perennial cover re-establishment. Integral management practices include forage harvest management, irrigation water management, prescribed grazing, integrated pest management and nutrient management. Primary resource concerns typically associated with irrigated pasture/haylands include, excess water-runoff, flooding or ponding, insufficient water-inefficient use of irrigation water, water quality degradation-pesticides in surface waters, water quality degradation-nutrients in surface waters, degraded plant condition-undesirable plant productivity and health, degraded plant condition-inadequate structure and composition, fish and wildlife habitat-inadequate habitat-cover/shelter, livestock production limitation-inadequate feed & forage and livestock production limitation-inadequate water.							
Select the "Run" button to view recommended practices for each resource concern (equal to or greater than the minimum acceptable value) Place an "x" to the left of the practice that may be included in the conservation plan. Select the "Sort" button to list selected practices at top of column, and "Results" for final report.											
Soil Erosion - Sheet and Rill Erosion	Excess Water - Runoff, Flooding, or Ponding	Insufficient Water - Inefficient Use of Irrigation Water			Water Quality Degradation - Pesticides in Surface Water	Water Quality Degradation - Nutrients in Surface water	Degraded Plant Condition - Undesirable Plant Productivity and Health	Degraded Plant Condition - Inadequate Structure and Composition	Fish and Wildlife - Inadequate Habitat - Cover/Shelter	Livestock Production Limitation - Inadequate Feed and Forage	Livestock Production Limitation - Inadequate Water
x Prescribed Grazing	x Waterspreading	x Waterspreading	x Land Smoothing	x Waterspreading	x Waterspreading	x Prescribed Grazing	x Prescribed Grazing	x Waterspreading	x Waterspreading	x Waterspreading	x Watering Facility
x Fence	x Water and Sediment Control Basin	x Surface Drainage, Field Ditch	x Irrigation Water Management	x Prescribed Grazing	x Prescribed Grazing	x Nutrient Management	x Nutrient Management	x Streambank and Shoreline Protection	x Surface Drainage, Field Ditch	x Water Well	
x Conservation Cover	x Surface Drainage, Field Ditch	x Structure for Water Control	x Irrigation System, Surface & Subsurface Integrated Pest Management	x Nutrient Management	x Nutrient Management	x Forage Harvest Management	x Forage Harvest Management	x Prescribed Grazing	x Prescribed Grazing	x Livestock Pipeline	
	x Structure for Water Control	x Land Smoothing		x Land Smoothing	x Land Smoothing	x Conservation Cover	x Conservation Cover	x Forage Harvest Management	x Irrigation Water Management		
	x Land Smoothing	x Irrigation Water Management		x Irrigation Water Management	x Irrigation Water Management	x Integrated Pest Mgt.	x Integrated Pest Mgt.	x Conservation Cover	x Irrigation System, Surface & Subsurface		
	x Irrigation System, Surface & Subsurface	x Irrigation System, Surface & Subsurface		x Irrigation System, Surface & Subsurface	x Irrigation System, Surface & Subsurface				x Forage Harvest Management		
		x Irrigation Field Ditch		x Conservation Cover	x Conservation Cover				x Fence		
						x Conservation Cover	x Conservation Cover				

Figure 2-3. Improved Rangelands - Seedings Resource Concerns and Conservation Practice Physical Effects .

Conservation Practice Selection Tool - Improved Rangelands - Seedings - WP CD MLRA 28A & 28B

Use the CPPE to recommend practices that address the resource concerns:

Enter the CPPE minimum acceptable "effect" value (1-5):

1

Select the **"Run"** button to view recommended practices for each resource concern (equal to or greater than the minimum acceptable value)
Place an **"x"** to the left of the practice that may be included in the conservation plan.
Select the **"Sort"** button to list selected practices at top of column, and **"Results"** for final report.

Land Use- Improved Rangeland Seedings; Declining seedings require restoration to address resource concerns associated with soil sheet & rill erosion, degraded plant conditions- inadequate structure and composition, degraded plant condition-excessive plant pressure, fish and wildlife-inadequate habitat-water, livestock production limitation-inadequate feed and forage and livestock production limitation-inadequate water. Stabilizing/enhancement conservation practices may include brush management, range planting, fence installation, water well, pumping plant & watering facility development, stock water pipeline installation combined with prescribed grazing system management to sustain habitat productivity & vigor.

	Soil Erosion - Sheet and Rill Erosion	Degraded Plant Condition - Undesirable Plant Productivity and Health	Degraded Plant Condition - Inadequate Structure and Composition	Degraded Plant Condition - Excessive Plant Pest Pressure	Fish and Wildlife - Inadequate Habitat - Water	Livestock Production Limitation - Inadequate Feed and Forage	Livestock Production Limitation - Inadequate Water
x	Range Planting	x Range Planting	x Range Planting	x Range Planting	x Watering Facility	x Range Planting	x Watering Facility
x	Prescribed Grazing	x Prescribed Grazing	x Prescribed Grazing	x Prescribed Grazing	x Water Well	x Prescribed Grazing	x Water Well
x	Fence	x Brush Management	x Brush Management	x Brush Management		x Fence	x Pumping Plant
x	Brush Management			x Integrated Pest Mgt.		x Brush Management	x Livestock Pipeline

Figure 2-4. Native Rangelands/Watershed Resource Concerns and Conservation Practice Physical Effects .

Conservation Practice Selection Tool - Native Rangelands - Watershed MLRA's 28A & 28B - White Pine CD										
Use the CPPE to recommend practices that address the resource concerns:										
Enter the CPPE minimum acceptable "effect" value (1-5):		1	Land Use- Native Rangeland/Watershed: Declining rangelands/watershed requires conservation practice & management applications to address soil sheet & rill erosion, soil erosion-classic gully, soil erosion-streambank, water quality degradation associated with pesticide use, noxious/invasive plants, degraded plant condition-undesirable plant productivity & health, degraded plant condition-inadequate structure & composition, fish and wildlife habitat-inadequate cover/shelter, fish and wildlife habitat continuity, livestock production limitation-inadequate feed and forage and livestock production limitation-inadequate water. Conservation practice and management alternatives include and not limited to the following: prescribed grazing systems, watering facility development (well, pipeline & troughs), fence installation, brush management, range planting, streambank and shoreline protection, stream habitat improvement and management, restoration and management of rare or declining habitats, and integrated pest management (noxious/invasive).							
Soil Erosion - Sheet and Rill Erosion	Soil Erosion - Classic Gully Erosion	Soil Erosion - Streambank, Shoreline, Water Conveyance Channels	Water Quality Degradation - Pesticides in Surface Water	Degraded Plant Condition - Undesirable Plant Productivity and Health	Degraded Plant Condition - Inadequate Structure and Composition	Fish and Wildlife - Inadequate Habitat - Cover/Shelter	Fish and Wildlife - Inadequate Habitat - Habitat Continuity (Space)	Livestock Production Limitation - Inadequate Feed and Forage	Livestock Production Limitation - Inadequate Water	
x Restoration and Management of Rare or Declining Habitats	x Watering Facility	x Watering Facility	x Integrated Pest Management	x Stream Habitat Improvement and Management	x Range Planting	x Streambank and Shoreline Protection	x Watering Facility	x Range Planting	x Watering Facility	
x Prescribed Grazing	x Range Planting	x Streambank and Shoreline Protection		x Range Planting	x Prescribed Grazing	x Stream Habitat Improvement and Management	x Streambank and Shoreline Protection	x Prescribed Grazing	x Water Well	
x Fence	x Prescribed Grazing	x Stream Habitat Improvement and Management		x Prescribed Grazing	x Brush Management	x Management of Rare or Declining Habitats	x Stream Habitat Improvement and Management	x Fence	x Pumping Plant	
x Brush Management	x Brush Management	x Range Planting		x Fence	x Integrated Pest Mgt.	x Range Planting	x Management of Rare or Declining Habitats	x Brush Management	x Livestock Pipeline	
		x Prescribed Grazing		x Brush Management		x Prescribed Grazing	x Range Planting			
						x Brush Management	x Brush Management			

Figure 2-5. Abandoned Agricultural Lands Resource Concerns and Conservation Practice Physical Effects

Soil Erosion - Sheet and Rill Erosion		Soil Erosion - Wind Erosion		Soil Quality Degradation - Concentration of Salts or Other Chemicals		Degraded Plant Condition - Inadequate Structure and Composition		Degraded Plant Condition - Excessive Plant Pest Pressure	
<input checked="" type="checkbox"/> Range Planting	<input checked="" type="checkbox"/> Prescribed Grazing	<input checked="" type="checkbox"/> Range Planting	<input checked="" type="checkbox"/> Prescribed Grazing	<input checked="" type="checkbox"/> Range Planting	<input checked="" type="checkbox"/> Prescribed Grazing	<input checked="" type="checkbox"/> Range Planting	<input checked="" type="checkbox"/> Prescribed Grazing	<input checked="" type="checkbox"/> Range Planting	<input checked="" type="checkbox"/> Prescribed Grazing
<input checked="" type="checkbox"/> Integrated Pest Management	<input checked="" type="checkbox"/> Integrated Pest Management	<input checked="" type="checkbox"/> Integrated Pest Management	<input checked="" type="checkbox"/> Integrated Pest Management	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting
<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover
<input checked="" type="checkbox"/> Critical Area Planting	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover	<input checked="" type="checkbox"/> Conservation Cover					<input checked="" type="checkbox"/> Integrated Pest Management	<input checked="" type="checkbox"/> Integrated Pest Management
<input checked="" type="checkbox"/> Conservation Cover									

Abandoned Agricultural Lands: Abandoned farm lands are subject to sheet and rill soil erosion, wind erosion, soil quality degradation with excessive salt concentration, degraded plant condition-structure & composition and degraded plant condition-excessive plant pressure from noxious/invasive species. Conservation & management practices required for stabilization may include range/critical area planting, conservation cover, fencing, integrated pest management and prescribed grazing management.

Conservation Practice Selection Tool - Abandoned Agricultural Lands
 MLRA's 28A & 28B - White Pine County
 CD

Use the CPPE to recommend practices that address the resource concerns:
 Enter the CPPE minimum acceptable "effect" value (1-5):
 Select the "Run" button to view recommended practices for each resource concern (equal to or greater than the minimum acceptable value)
 Place an "x" to the left of the practice that may be included in the conservation plan.
 Select the "Sort" button to list selected practices at top of column, and "Results" for final report.

Local Partners and Focus Group Initiative, 2018 & 2019 Meeting & Group Sessions

White Pine Conservation District RNA Meeting Overview/Highlights - 2018/2019

RNA meetings were held in conjunction with the White Pine Conservation District representatives and partnering entities on 6/8/2018 (CRM), 12/14/2018 (CRM/UNRCES), 2/21/2019, 2/28/2019 (UNRCES/WP Assessor), 3/5/2019 and 5/28/2019 (Focus Group). See Appendix VIII for list of participants.

- 6/8/2018: The June 8 CRM meeting was attended by Gary McCuin and Jim Evans to provide introductory information to the group relative to the RNA process and how this particular group could potentially participate having members representing all facets of resource management concerns in White Pine County. The CRM group is the only standing coordinated resource management planning team remaining in the state of Nevada at this time. The CRM comprises membership from the majority of federal, state and municipal governing/regulatory agencies in White Pine County, the local utilities, and several non-governmental organizations, private interest groups in northern Nevada.
- 12/14/2018: The 12/14 CRM meeting was attended by Jim Evans, Maggie Orr and Rick Orr. Maggie gave a formal presentation on the RNA process in Nevada and cited several examples of how the CRM group could actively participate in the planning process and provide direct input as a member of the local focus group.
- 2/21/2019: On 2/21 the CD board reviewed and provided commentary on the SWAPA+H resource assessment protocol. The primary concerns identified among board members and participating agency partners matched, paralleled very closely the general category assessments identified by the Eureka Conservation District. NRCS in White Pine County is actively involved with range improvement projects on private/public lands that are readily permitted under current NEPA permitting protocol. The general discussion at this meeting focused on private land agricultural concerns and public lands management initiatives. During this CD board meeting the participants identified general resource concern categories as they relate to SWAPA+H protocol. It was at this meeting when the primary natural resource concerns were evaluated by the group and prioritized to reflect the most significant issues in White Pine County.
- 3/5/2019: During the CD meeting held on 3/5 the board and participants reviewed the summary of natural resource concerns discussed and prioritized on 2/21. Additionally the RNA survey protocol (UNR/CES) was discussed and the board was in agreement that a focus group would be required to deploy the survey instrument within the local community.
- 5/28/2019: Chairman Weeks and the CD focus group met with the UNR/CES Ag Resource Economics/CES Dept. representatives to evaluate the RNA survey tool developed for northern Nevada. Approximately nine members comprise the focus group representing various interests within the county. The group took the survey and provided significant feedback regarding the questionnaire format and design. The recommendations were focused on modifications associated with terminology and redundancy within the modules. The group will now move

forward with selection of the various user groups that could provide measurable information and feedback to strengthen the survey as a supporting document for the Resource Needs Assessment. It is possible that the board will schedule an additional public meeting to review the resource assessment prioritizations with a more diversified audience including regulatory agency representatives (municipal/state/federal).

A special thanks for major contributors Jeff Weeks (White Pine County CD Chairman), Juan Cervantes (UNRCES), Gary McCuin (UNRCES), Jake Tibbitts (Eureka County Natural Resources Manager), and Maggie Orr (Past President, Nevada Association of Conservation Districts) for their due diligence in establishing the primary partners network and providing technical and administrative assistance throughout the White Pine RNA development process.

APPENDIX I

RESOURCE DISCUSSION INITIATIVE, PROTOCOLS AND RESOURCE AREAS OF CONCERN

With increased growth and the diversified marketability for local resource products we strive to manage our resource base for sustainability and to preserve for future generations managing these habitat regimens requires a collaborative initiative comprising a partnership including local citizenry, local government, land management regulatory agencies, and non-governmental organizations and interest groups. Nevada, being the driest state in the nation, is challenged to safely manage its precious ground and surface water resources to sustain the demand from an increasing population, a stable agricultural base and a growing commercial/industrial infrastructure. Northeastern Nevada, in Elko, Eureka, Humboldt, White Pine and Lander Counties supports an integral agricultural economy where the majority of the livestock based enterprises are located. High quality irrigated forages are also produced in this region to sustain local demand and serve neighboring dairy markets in California and track hay markets in the eastern & southeastern United States. Recreational opportunity in the mountainous zones supporting big game, upland game, fisheries, visual land scape and cultural resources is a very important component of the natural resource base and local economy. In White Pine County with Great Basin National Park, vast expanses of BLM and US Forest Service administered lands, wilderness areas, and a number of state recreational and wildlife management areas recreational use is integral relative to multiple-use management directives and prioritization.

Cattle and sheep operations rely almost exclusively on the public lands grazing allotments managed by the Bureau of Land Management and the United States Forest Service whom have regulatory authority over some eighty six percent of the land base in the state of Nevada. Public lands and grazing allotments are managed to provide sustainable multiple-use by all groups including and not limited to grazing, recreation, and commercial-industrial (mining) while preserving habitat integrity for the multitude of species that occupy these eco-types. Soil, water and vegetative resource stabilization & enhancement will be key components required to provide and sustain optimal habitat conditions now and into the future. Preservation of these viable resources through the implementation of sound grazing systems and the enhancement of water availability to promote optimal distribution will result in improved and stabilized habitat regimens. Herd Management Areas, regulated and managed by the Bureau of Land Management are strained with horse populations that exceed the appropriate management level throughout the majority of these designated zones. Uncontrolled populations are having a detrimental effect on the eco-types and water resources, springs, seeps & riparian zones, to such an extent that rehabilitation may require decades of intensified management to achieve stabilization. Pinion-Juniper invasion throughout the sagebrush-steppe has altered what were one-time optimal habitat zones. Multi-disciplinary planning should be considered when evaluating and prioritizing treatment sites for thinning. Many of these areas serve as thermal protection zones for big game (migratory corridors) and a variety nesting/roosting avian species that utilize woody canopy. The distribution of sage-grouse, a species of concern, and their upland sagebrush & riparian habitats throughout White Pine County will require integration of grazing systems and land treatment conducive to habitat stabilization & enhancement. The fire cycle has had significant impacts on eco-types throughout many watersheds in northern Nevada. White Pine County's basins have sustained measurable impact as a result of decades of re-curing large-scale fire that has resulted in vegetative type conversions to monotypic cheat-grass plant communities. In order to buffer the impact of potential

large-scale burns the land management agencies need to evaluate the opportunity to develop buffering zones and fuel break corridors to inhibit and or slow down the spread of these devastating events that destroy hundreds of thousands of acres of habitat. Critical area stabilization and rangeland plantings are essential practice applications required to address vegetative re-establishment within hot fire zones where the native species cannot re-grow or germinate post-fire. Invasive species, weed invasion management must remain as a primary consideration relative to post-fire treatment. Weed control and invasive species management, addressing the spread of cheat grass, should be an integral component of both the BLM Ely District Resource Management Plan and the White Pine Conservation District prioritizations in the annual work plan.

Water conservation initiatives throughout all basins in White Pine County remains a top priority. This initiative will require adoption of state-of-the art irrigation system technology to minimize water loss and maximize application efficiencies. Conservation cropping systems that reduce the annual gross water application requirement will play a vital role in achieving optimal hydro basin balances. Reduced irrigated acreage combined with increased production on the remaining cropland is a viable alternative. Other alternatives include the production of high value crops with low watering requirements, in example hemp, the adoption of grass and or grass-legume forage production for hay and or irrigated pasture, the production of native seed for reclamation, and converting abandoned cropland to improved rangeland for grazing. Of primary consideration during this process and into the future is the abandonment of agricultural lands. This is an important issue as many previously irrigated ag lands are being converted and are no longer irrigated. Potential for invasive species and soil erosion are significant. This will present a measurable problem relative to resource degradation as water rights are adjudicated and large tracts of agricultural lands are dried up and or water rights are transferred from ag to other uses. Out-of-basin water transfers should not be integrated and or promoted without a thorough evaluation of environmental impact. An example with mine development de-watering these hydrologic zones must be mapped (cone of depression) to the extent that both short and long term effects can be identified accurately during the scoping process. Long term implications relative to impact & effect on ground water quality have yet to be realized throughout many northeastern Nevada basins. Earlier developments in northern Nevada were not required, at the time, to compile accurate assessments of depressional zones that could and did have significant detrimental effect on both ground and surface water resources. In White Pine County there are a number of ground and surface water sources identified in the Clark, Lincoln and White Pine Counties Groundwater Development Project (SNWA) that are targeted for domestic/commercial & industrial uses in southern Nevada (Las Vegas Valley). The Southern Nevada Water Authority has proposed this project to augment water supplies for sustainable growth as the supplies from the Colorado River Basin have declined. The long term effects of this project could have substantial impact on ground water basin ('s) integrity relative to supply quantity, water quality and the habitat regimens associated with surface and shallow ground water withdrawal.

The adoption of a holistic framework devised to allow all key partners to participate in localized conservation planning impetus will be integral to successful collaboration. Jurisdictional and regulatory boundaries have to be recognized as a component of the ecological process relative to system health but not a barrier to the deployment of sound resource planning & management initiatives. The window of opportunity to work with our primary constituents, the Conservation District, Nevada's Association of Conservation Districts, White Pine County, Nevada's Division of Water Resources, the University of Nevada's Cooperative Extension, the Ely District BLM, the Humboldt-Toiyabe Ely Ranger District, the

State of Nevada (recreational areas, wildlife mgt areas, NDOW) and USDA's Natural Resource Conservation Service has been widened through outreach and commitment by all to deploy prioritized conservation efforts for our localized community now and into the future.

The group facilitation process was an integral tool in providing the discussion leaders an orderly and effective presentation mechanism to explain the resource needs assessment process, goals and objectives and reporting protocols. Many of the participants, other than agency resource professionals, were not familiar with the NRCS Resource Concerns Checklist protocol which compartmentalizes environmental considerations into seven primary categories; soil, water, animals, plants, air, energy and the human factor. As the varied discussions relative to local issues progressed the groups became more comfortable with pinpointing and identifying specific impacts/effects relative to the categorical delimiters, SWAPA+H (NHCP, 2019). The groups readily recognized the similarity of localized resource concerns/land use throughout the Northern Great Basin encompassing major land resource areas 24, 25, 28A&28B in Eureka, Elko, Humboldt, Lander and White Pine Counties (MLRA 28A & 28B). A brief summary of the climatic and physiographic characteristics for these zones is described in 'Land Resource Regions and Major Land Resource Areas of the United States, the Carribean and the Pacific Basin.' (Ag Handbook 296, 2006).

MLRA 28A - Great Salt Lake Area

This area is in Utah (82 percent), Nevada (16 percent), and Idaho (2 percent). It makes up about 36,775 square miles (95,300 square kilometers). Salt Lake City, Logan, Ogden, Provo, Richfield, and Cedar City, Utah, and Malad City and Preston, Idaho, are in this MLRA. Interstate 80 crosses the northern end of the MLRA, and Interstate 15 parallels the eastern border. Interstate 84 crosses the northern tip, and Interstate 70 ends at Interstate 15 in the south end of the MLRA. Several national forests occur in this MLRA, including the Caribou, Dixie, Wasatch-Cache, HumboldtToiyabe, and Fish Lake National Forests. The Deseret Test Center and the Desert Range Experiment Station, including the Biosphere Reserve, are in this area. The Hill and Wendover Air Force Ranges, the Tooele Military Depot, and the Dugway Proving Grounds also are in this area. The Skull Valley Indian Reservation is in the area. The Bonneville Salt Flats Speedway, used by experimental cars for setting land speed records, also is in the area. The Golden Spike National Historic Site (joining point for the first transcontinental railroad) is in this MLRA.

Climate

The average annual precipitation is 5 to 12 inches (125 to 305 millimeters) in the valleys and is as much as 49 inches (1,245 millimeters) in the mountains. Most of the rainfall occurs as high-intensity, convective thunderstorms during the growing season. The driest period is from midsummer to early autumn. Precipitation in winter typically occurs as snow. The average annual temperature is 39 to 53 degrees F (4 to 12 degrees C). The freeze-free period averages 165 days and ranges from 110 to 215 days, decreasing in length with elevation.

MLRA 28B - Central Nevada Basin & Range

This area is entirely in Nevada. It makes up about 23,555 square miles (61,035 square kilometers). The town of Ely, Nevada, is in this MLRA. Interstate 80 crosses the 82 Major Land Resource Areas

northeastern tip of the area. One of the world's largest open-pit mines, the Ruth Copper Pit, is directly west of Ely. Portions of the Humboldt and Toiyabe National Forests occur in this area. The Odgers Ranch, Goshute, and Duckwater Indian Reservations and the Great Basin National Park also are in this area. **Physiography** This area is in the Great Basin Section of the Basin and Range Province of the Intermontane Plateaus. It is an area of nearly level, aggraded desert basins and valleys between a series of mountain ranges trending north to south. The basins are bordered by long, gently sloping to strongly sloping alluvial fans. The mountains are uplifted fault blocks with steep side slopes. They are not well dissected because of a low amount of rainfall in the area. Many of the valleys in this MLRA are closed basins containing sinks or playas. Elevation ranges from 4,900 to 6,550 feet (1,495 to 1,995 meters) in the valleys and basins and from 6,550 to 11,900 feet (1,995 to 3,630 meters) in the mountains. The extent of the major Hydrologic Unit Areas (identified by four-digit numbers) that make up this MLRA is as follows: Central Nevada Desert Basins (1606), 82 percent; Black Rock Desert-Humboldt (1604), 7 percent; Lower Colorado-Lake Mead (1501), 6 percent; and Great Salt Lake (1602), 5 percent. The MLRA has no major rivers. The Duck River is north and east of Ely (Ag Handbook 296, 2006).

Climate

The average annual precipitation is 4 to 12 inches (100 to 305 millimeters) in most areas on the valley floors. It is about 8 to 36 inches (205 to 915 millimeters) in the mountains. Most of the rainfall occurs as high-intensity, convective thunderstorms during the growing season. The driest period is from mid-summer to mid-autumn. The average annual temperature is 34 to 52 degrees F (1 to 11 degrees C). The freeze-free period averages 125 days and ranges from 80 to 170 days, decreasing in length with elevation (Ag Handbook 296, 2006).

APPENDIX II

WHITE PINE CD GROUND WATER QUANTITY

Throughout the region (Appendix I, Figure 3-2), White Pine County Hydro Basin Land Status), precipitation varies widely between seasons and years as well as within elevation. Annual precipitation ranges from 4 to 12 inches and results mostly from winter storms although summer thunderstorms can produce large amounts of precipitation (eastern White Pine County -MLRA 28A) as rain. Higher amounts of precipitation generally occur as elevation increases. Above 6,000 feet it is not uncommon for areas in eastern Nevada to receive 36 to 49 inches of precipitation or more in these mountainous zones. Precipitation supports groundwater recharge. Table 3-1 shows major groundwater hydrographic basins in White Pine County including the committed duty groundwater rights and perennial yield of each basin.

Table 3-1. White Pine County Ground Water Rights (In Acre-Feet).

Basin	Perennial Yield (Acre Ft/Year)	Committed Acre Feet Annually (AFA) ¹
Antelope Valley North 186A	800	1538
Antelope Valley South 186B	1700	2729
Butte Valley - North 178A	6000	123
Butte Valley - South 178B	14000	14000
Cave Valley 180	5600	55
Deep Creek Valley 193	2000	1
Hamlin Valley 196	5000	398
Huntington Valley 047	14000	8962
Jakes Valley 174	12000	30
Lake Valley 183	12000	17084
Little Smoky Valley - N 155A	5000	5060
Long Valley 175	6000	4719
Newark Valley 154	18000	27631
Pleasant Valley 194	1500	976
Railroad Valley - N 173B	75000	31803
Ruby Valley 176	37000	23223
Snake Valley 195	25000	12924
Spring Valley 201	25000	11119
Steptoe Valley 179	70000	193515
White River 207	37000	35640

Source: Nevada Division of Water Resources

¹ Groundwater Committed is the sum of all permitted, certificated, decreed, reserved, relinquished, revocable and unadjudicated vested claims to groundwater rights. Domestic Well Use is estimated as the number of active domestic wells multiplied by the estimated average use of 1 AFA per well. Domestic commitments may be represented under Groundwater Committed for wells with an appropriative right for domestic use, or for wells that were drilled under a relinquishment of an existing groundwater right. Groundwater Available for Appropriation is estimated as the difference between perennial yield and groundwater committed plus domestic well use. If groundwater committed exceeds perennial yield, available groundwater is zero. This simplified estimate does not take into account several variables that may affect groundwater availability, such as the supplemental nature of groundwater to surface water sources, rights that were issued with an expiration date, rights that are temporary in nature (i.e. mining and milling), the consumptive use of individual rights, hydrogeologic setting, hydraulic connectivity to surface water, adjudication status, and geothermal appropriations.

The hi-lighted basins indicate committed allocations that are near and or exceeding the estimated perennial yield. This accounts for a significant basin area re-charge zone throughout White Pine County. There are increasing demands for water use both within and outside of the designated water basins. Careful consideration and analysis will be required to minimize impacts and effects associated with over-allocation, particularly with out-of-basin transfers for residential/commercial/industrial development that can consume significant volume from a limited ground water resource bank.

APPENDIX III

WHITE PINE COUNTY WEED MANAGEMENT & CONTROL INITIATIVES

Cooperative Weed Management Areas (CWMA's)

The management of **noxious weeds** is necessary to conserve and improve natural resources such as cropland, soil, forage, and wildlife habitat. Primary goals & objectives are to manage land resources for multiple use values and enhance economic stability throughout White Pine County. Currently White Pine County comprises some seven (7ea.) cooperative weed management areas including Newark/Long Valley, Railroad Valley, Robinson, Snake Valley, Steptoe/Butte Valley, Tri County, and White River Valley. Weed management planning initiatives and control strategies are administered/implemented on public lands by the regulatory agencies, primarily the Bureau of Land Management Ely District, the Humboldt-Toiyabe National Forest Ely Ranger District, Great Basin National Park and a number of local volunteer conservation groups including the Eastern Nevada Landscape Coalition. Private lands initiatives are administered/assisted through the White Pine Conservation District, University of Nevada Cooperative Extension and the USDA Natural Resources Conservation Service. The CWMA plans have been constructed to compliment the Nevada Noxious Weed Laws put in place by the Nevada Department of Agriculture. The targeted noxious weeds to be controlled are designated by the Nevada Department of Agriculture. Control is aimed at eradicating, reducing, suppressing or containing populations of non-native, invasive noxious weeds which pose a threat to the environment and economies within White Pine County. White Pine County CD, the Nevada Department of Agriculture, UNRCES, USDA-NRCS, BLM, US Forest Service, National Park Service, Tri County CWMA, and the Eastern Nevada Landscape Coalition work jointly in the effort to identify on both private and public lands the areas of infestation, classify categorically the noxious species index, develop treatment and reclamation/rehab plans and monitor both treatment sites and new areas of infestation. Table 3-2 lists, alphabetically by common name the Nevada Noxious weed list. Recent inventories identifying noxious species of concern in White Pine County are listed at <http://tricoweedcontrol.com/invasive-species/>. (Control, 2019)

Table 3-2. Nevada Noxious Weed List and Species That Have Been Identified and Mapped in White Pine County.

African Rue	Giant Salvina	Hydrilla
Austrian fieldcress	Goats rue	Johnson grass
Austrian peaweed	Green fountain grass	Klamath weed
Black Henbane	Hemlock, poison	Knapweed, Diffuse
Camelthorn	Hemlock, water	Knapweed, Russian
Common crupina	Horse-nettle, Carolina	Knapweed, Spotted
Dyer's woad	Horse-nettle, White	Knapweed, Squarrose
Eurasian water-milfoil	Houndstongue	Leafy Spurge
Mayweed chamomile	Rush skeletonweed	Thistle, Sow
Mediterranean sage	Saltcedar (tamarisk)	Thistle, Iberian star
Medusahead	Sorghum alum	Thistle, Purple star
Perennial pepperweed	Sulfur cinquefoil	Thistle, Yellow star
<i>(tall white top)</i>	Syrian bean caper	Thistle, Malta star
Perennial sweet sudan	Thistle, Canadian	Toadflax, Dalmatian
Puncturevine	Thistle, Musk	Toadflax, yellow
Purple loosestrife	Thistle, Scotch	Whitetop or Hoary cress

APPENDIX IV

BUREAU OF LAND MANAGEMENT/WHITE PINE COUNTY RESOURCE MANAGEMENT PLANNING INITIATIVES

HERD MANAGEMENT AREAS

The Bureau of Land Management oversees 26.9 million acres of land in Nevada used by wild horses, wild burros and other species. Unchecked herds double in size every four years, due to a lack of natural predators and a rapid growth rate. In White Pine County there are ten herd/herd management areas comprising some 2,281,602 acres (Appendix I, Figure 3-3). All ten HMA wild horse populations exceeded the appropriate management level (AML's) as designated by the BLM in 2017 (Table 3-3). The Bureau faces overwhelming complications relative to litigation constraints that inhibit timely gathers to reduce population numbers. As a result, with uncontrolled population numbers, over-grazing impacts are extreme throughout all herd management area units in White Pine County.

Western States BLM Herd Management Area Statistics

Herd Area and Herd Management Area Statistics

as of March 1, 2017

	Herd Area			Herd Management Area		Estimated Populations			High AML
	BLM Acres	Total Acres	Acres Transferred from BLM	BLM Acres	Total Acres	Horses	Burros	Total	
AZ	2,019,027	3,643,197	0	1,498,207	2,296,269	364	6,241	6,605	1,676
CA	5,170,931	7,021,651	1,425,649	2,053,082	2,533,722	5,088	3,657	8,745	2,200
CO	723,095	851,275	0	365,988	404,013	1,693	0	1,693	812
ID	420,783	477,300	0	383,894	418,268	563	0	563	617
MT	103,844	230,073	0	27,094	35,640	166	0	166	120
NV	19,741,193	22,890,624	437,436	14,032,947	15,668,201	34,780	2,931	37,711	12,811
NM	88,655	126,530	0	24,506	28,613	168	0	168	83
OR	3,608,660	4,312,356	130,335	2,733,577	2,978,751	4,302	49	4,351	2,715
UT	3,224,891	3,915,687	98,289	2,154,458	2,451,227	5,215	313	5,528	1,956
WY	7,301,975	10,344,424	0	3,633,879	4,768,682	7,144	0	7,144	3,725
TOTAL	42,403,054	53,813,117	2,091,709	26,907,632	31,583,386	59,483	13,191	72,674	26,715

Herd Management Areas (HMA) and Herd Areas (HA) have been placed in separate tables by state. The population estimation method used on most of BLM's 177 HMAs is the simultaneous double count method. Ground counts are still done on smaller areas where animals are easier to identify. As is true for any estimates of wildlife abundance or herd size, there is always some level of uncertainty about the exact numbers of wild horses or wild burros in any HA/HMA or non-HMA area. The estimates shown here reflect the most likely number of wild horses, based on the best information available to the BLM and may not account for every animal within the HA/HMA. BLM strives to conduct aerial surveys in each HMA once every three years. These surveys result in estimates that statistically account for animals that are not detected by any observer on the flights. In years without surveys, herd size estimates rely on additional information, including known numbers of animals removed and estimated annual population growth rates. Populations do not reflect any changes after March 1, 2017 (i.e. foal crops or gathers). BLM policy is to establish Appropriate Management Levels (AML) as a range with upper and lower levels (BLMNV, 2019).

Table 3-3. White Pine County Herd Area and Herd Management Areas Statistics as of March 2017

HA/HMA	AML LOW	AML HIGH	ESTIMATED POPULATION	% OF AML	ACRES
BUCK-BALD	129	215	359	167%	139,875
CHERRY CREEK HA			46		472,429
GOSHUTE	74	123	1,015	825%	267,227
JAKES WASH HA			179		153,662
MAVERICK-BUTTE	166	276	1,309	474%	323,562
MONTE CRISTO HA			0		378,570
MORIAH			302		43,405
MURPHY WASH HA			0		175,926
RAILROAD PASS	10	22	150	682%	20,288
SHELL CREEK HA			0		306,658

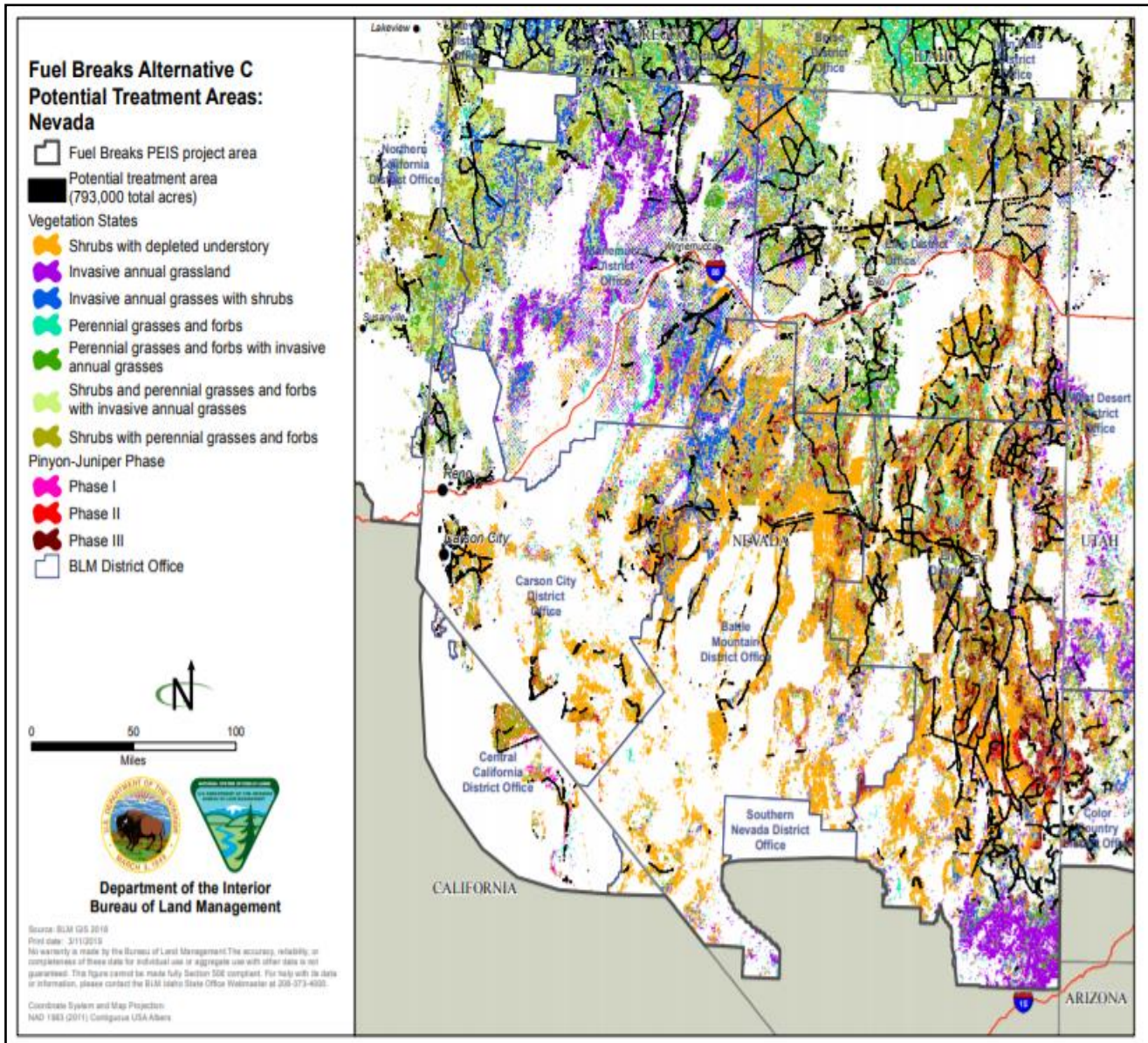
Source: https://www.blm.gov/sites/blm.gov/files/wildhorse_programdata_2017hmastats.pdf

FIRE MANAGEMENT/FUEL BREAKS INITIATIVE

Large, unbroken swaths of grasses, brush and other vegetation have provided a continuous supply of fuel for the recent catastrophic rangeland wildfires that have burned across the Great Basin states. The concept behind fuel breaks is to break up or fragment continuous fuels by reducing vegetation in key locations. When a wildfire burns into a fuel break, the flame lengths decrease and its progress slows, making it safer and easier for firefighters to control. The fuel breaks would be strategically placed along roads and rights-of-way on BLM-administered lands. On June 21, 2019 the Department of the Interior’s (DOI) Bureau of Land Management (BLM) released the Draft Programmatic Environmental Impact Statement (EIS) for Fuel Breaks in the Great Basin for a 45-day public comment period. This Draft Programmatic EIS analyzes a system of up to 11,000 miles of strategically placed fuel breaks to control wildfires within a 223 million-acre area that includes portions of Idaho, Oregon, Washington, California, Nevada (Figure 2-6) and Utah (BLMNV, 2019). White Pine County has sustained significant impacts from large scale fire over several decades which has led to vegetative type conversions effecting critical habitat regimens and watershed stability (Appendix I, Figure 3-4).

Tools used to create fuel breaks could include brown strips - areas where all vegetation has been removed; green strips - areas where vegetation that is more flammable has been replaced with less flammable vegetation; and mowing or targeted grazing depending on the locations and vegetation.

Figure 3. Fuel Breaks Alternative C Potential Treatment Areas: Nevada



A system of strategically placed fuel breaks in the Great Basin region would slow the spread of wildfires; thereby reducing wildfire size, improving firefighter safety and providing an anchor point for fire suppression activities, providing opportunities to control catastrophic wildfire, and creating buffers for maintaining important habitats. Fuel breaks would also offer greater protection to human life and property, sagebrush communities, and ongoing/pending habitat restoration investments, and reduce invasive plant species expansion. Wildfires continue to increase in size and frequency throughout the western United States in recent years. Further, the number of areas that burn repeatedly before habitats can be re-established has increased. These fires negatively impact healthy rangelands, sagebrush communities, and the general productivity of the lands. In the last decade (2009-2018), 21 fires have exceeded 100,000 acres. During this same timeframe, the total number of acres burned in the project area was over 13.5 million acres. Efforts to suppress wildfires on BLM-administered lands in Utah,

Nevada, and Idaho (for which data are available) have cost approximately \$373 million dollars between 2009 and 2018. These wildfires result in increased destruction of private property, degradation and loss of rangelands, loss of recreational opportunities, and habitat loss for a variety of species, including the conversion of native habitats to invasive annual grasses. The conversion of rangeland habitats to invasive annual grasslands further impedes rangeland health and productivity by slowing or preventing recovery of sagebrush communities. (BLMNV, 2019)

GREATER SAGE-GROUSE HABITAT CONSERVATION

Greater Sage-Grouse is a state-managed wildlife species that depends on sagebrush-steppe ecosystems managed in partnership by federal, state and local authorities. Shared responsibilities mean that it makes sense for the BLM as the largest land manager to align its strategies with the state agencies responsible for managing the species. The BLM has better aligned its resource management plans with respective state wildlife management plans through amendments developed in collaboration with governors, state wildlife managers and other stakeholders. Records of Decision (RODs) signed on March 14 and 15, 2019, adopt these amendments and position state-level coalitions to move forward toward improved outcomes for the Greater Sage-Grouse (BLMSG, 2019)

The State's goal for the conservation of sage-grouse in the State of Nevada is to provide for the long term conservation of sage-grouse by protecting the sagebrush ecosystem upon which the species depends. Redundant, representative, and resilient populations of sage-grouse will be maintained through amelioration of threats; conservation of key habitats; mitigation for loss of habitat due to anthropogenic disturbances; and restoration or rehabilitation of habitat degraded or lost due to Acts of Nature. Achieving the State's goal for the conservation of sage-grouse will provide benefits for the sagebrush ecosystem and for many other sagebrush obligate species. Sage-grouse are known to be an "umbrella species" for many sagebrush obligate and associated species (Hanser and Knick 2011). The enhancement and restoration measures that bring resiliency and restore ecological functions to sagebrush ecosystems will also serve to ensure quality habitat for sage thrasher, sage sparrow, Brewer's sparrow, sagebrush vole, pygmy rabbit, pronghorn antelope, mule deer, and many other species (Team, 2014). Significant habitat regimens, sagebrush-steppe, comprise major land resource areas 28A & 28B within White Pine County (Appendix I, Figure 3-5). Diversified seasonal habitats occur on private agricultural lands which are integral for the long term stability of the population segments throughout White Pine County.

The Greater Sage-grouse Advisory Committee, using the best available science, identified fire and invasive plant species, principally cheatgrass (*Bromus tectorum*), as the primary threat to sage-grouse and their habitat in the State of Nevada. The State acknowledges these threats must be adequately addressed in order to achieve the conservation goal for sage-grouse within the State of Nevada; however, it is not economically or ecologically feasible to restore all fire damaged or invasive species dominated landscapes at this point, nor is it possible to prevent all fires (NVSETT, 2014). Upland seasonal habitat regimens, summer brood, spring-fall, winter and breeding (leks), require sound land use and management initiatives and practices to insure habitat propagation and stability into the future.

Fire and the subsequent reestablishment of plant species (native or not) is a natural process, and consequently this threat is extremely challenging across the western United States as humans are still limited in our ability to directly control this cycle. However, scientific understanding of ecological

processes and resource management techniques continues to improve. Adaptive management approaches, committed to by the State, will provide an opportunity to continue to gain a greater understanding of the ecological mechanisms that drive these processes and will subsequently lead to improvements in resource management practices that reduce the occurrence of catastrophic wildfire and minimize the risk of crossing ecological thresholds due to the invasion and subsequent potential domination by invasive annual grasses (NVSETT, 2014).

The following summarizes the preferred alternative identified in the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region in March of 2019:

Alternative D was identified as the preferred alternative in the Draft EISs. This alternative balanced opportunities to use and develop the Planning Area, as well as conserving, maintaining, and enhancing GRSG (Greater Sage-Grouse) and its habitat. Protective measures were applied to GRSG habitat, while allowing for human disturbances with stringent mitigation measures. This alternative represents the mix and variety of management actions, based on the BLM's analysis and judgment, which best resolve the resource issues and management concerns while meeting laws, regulations, and policies pertaining to BLM management. As a result of public scoping comments, internal review, and cooperating agency coordination on the Draft RMPAs/EISs, this alternative was modified to become the Proposed RMPAs (Resource Management Planning Areas) and was analyzed in the Final EISs. The preferred alternatives, with slight variations, became the proposed plans in the Final EISs. In PHMAs (Planned Habitat Management Areas) under Alternative D, disturbance in GRSG habitat would be limited by excluding wind and solar energy development (except for certain counties in Southeastern Oregon, where avoidance is applied), avoiding most ROW (Right-Of-Way) development (subject to certain conditions), applying NSO stipulations to fluid mineral development, and closing PHMAs to non-energy leasable mineral development and mineral material sales. These management actions would protect GRSG habitat, while allowing other activities, subject to conditions. In GHMAs (General Habitat Management Areas) under Alternative D, allocations are less stringent but still aim to protect GRSG habitat (for example, applying moderate constraints and stipulations to fluid minerals in GHMAs). Under Alternative D, the BLM management would support sagebrush/perennial grass ecosystem restoration, would increase fire suppression in PHMAs and GHMAs, and would manage livestock grazing to maintain or enhance sagebrush and perennial grass ecosystems (BLMSG, 2019).

RANGELAND HEALTH-RIPARIAN MANAGEMENT-GRAZING LANDS

White Pine County comprises some one hundred forty-four (144 ea.) grazing allotments administered by the BLM and USFS.(Appendix I - Figures 3-6 & 3-6A). The majority of agricultural operations throughout the county rely on the use of these public lands as an integral component of the ranching operation. Without the use of these pastures, again, the majority of cow-calf based operations would not be able to sustain agricultural enterprises in White Pine County. Maintaining optimal rangeland health (uplands) and proper functioning condition of ephemeral & perennial watershed remains a constant management objective on both private and public lands. In order for these agricultural operations to transition and stabilize as viable agri-business entities a comprehensive, dynamic and holistic management policy must be developed and implemented on public lands. Grazing management principals must be employed utilizing state of the art scientifically proven protocols in order to incorporate much needed flexibility in grazing schedules devised to sustain natural resource integrity and provide optimal management opportunities for the public grazing lands users.

Riparian Proper Functioning Condition (PFC) describes assessing on-the-ground conditions of a riparian area. A healthy riparian area is resilient. PFC gauges a riparian area's resiliency, or ability to hold together, during high stream flows. They are among the first landscape features to reflect damage from improper management or natural events, such as a flood or drought. Yet, water can also create opportunities for restoration and recovery including re-establishing native vegetation or improving fish and wildlife habitat. When riparian areas are not in PFC, they are not in a sustainable condition. To create a sustainable riparian area, cooperative restoration and management at a landscape level are key to bringing about desired conditions in water on public lands. Landscape-scale restoration is a priority because public land managers face increasing demand for water resources. Reliable supplies of water for domestic, agricultural, and industrial consumption are essential to community well being and economic stability. Restoration can help balance human needs with those of fish and wildlife by increasing the quality and quantity of water resources (BLM).

PINION-JUNIPER MANAGEMENT INITIATIVE - WHITE PINE COUNTY/BLM/NDOW

Much research has been done documenting the negative ecological impacts related to the expansion and infill of PJ woodlands outside of native areas and encroachment of these woodlands into sagebrush steppe (Baker and Shinneman, 2004; Blackburn and Tueller, 1970; Burkhardt and Tisdale, 1976; Rowland, et al., 2008; Soule and Knapp, 1999; Wall, et al., 2001; Wilcox and Davenport, 1995). Negative impacts associated with this expansion and encroachment includes, but is not limited to, loss of wildlife habitat, increased erosion, loss of herbaceous species, increase in conditions conducive to weed invasion, and decrease in water quantity and quality (ECDNR-Tibbitts, 2012).

The Bureau of Land Management Ely District's fuels management team is thinning pinion-juniper on public lands in south Steptoe Valley to reduce catastrophic wildfire risk and improve wildlife habitat. The 56-acre mastication treatment 30 miles south of Ely is part of the multi-year South Steptoe Valley Watershed Restoration Project that will ultimately treat up to 54,000 acres of the 200,000-plus acre watershed. Treatments are comprised mostly of mastication, hand thinning and chaining and focus primarily on restoring sagebrush communities though aspen, mixed conifer, mountain mahogany, mountain brush, and pinyon-juniper woodland communities also benefit. The district has to date treated 13,575 acres in cooperation with the Nevada Department of Wildlife and in coordination with the Humboldt-Toiyabe National Forest, Ely Ranger District's restoration efforts on neighboring Ward Mountain. The fuels management program focuses on protecting local communities and our natural resources. Fuels management staff work closely with homeowners, communities, fire departments, government agencies and tribes to develop and implement hazardous fuels treatments designed to reduce the risks of catastrophic wildland fire to people, communities, and natural resources and restore rangeland and woodland ecosystems. (ElyBLM, 2018) <https://www.blm.gov/press-release/blm-ely-district-thins-pinion-juniper-reduce-fire-risk-and-improve-land-health>

APPENDIX V

CULTURAL RESOURCES

Created in 1979 by the Nevada Legislature, the Nevada State Register (or NVSRHP) is an official list kept by the Nevada State Historic Preservation Office of places and resources worthy of preservation (NRS 383.085). These resources reflect history, architecture, archaeology, and culture that are important to Nevadans. The Nevada State Register recognizes those places in the state that have significance to the past in a local, state, or national context, and possess good physical integrity to the period during which they were important. To be eligible, a resource can be a building, structure, site, or object. They can also be a larger landscape, or a collection of resources known as an historic district. (NVSHPO, 1979)

Within White Pine County several historical sites and historical districts (tribal & mining) have been identified by public lands regulatory agencies (BLM, USFS), tribal entities and the Nevada State Preservation Officer. Pre-historic data is administered by public lands management agencies and tribes in coordination with the State Historic Preservation Officer (SHPO). Protocols relative to procedures required to evaluate potential cultural properties are collaborated among the administering agencies and tribes. Federal programs administered and deployed on private & municipal/county/state lands require implementation of protocols as described for public lands as per code of federal regulation (CFR).

APPENDIX VI

WHITE PINE COUNTY RURAL & URBAN COMMUNITY SETTING AND COMMUNITY NEEDS ASSESSMENT

RESERVED

This section has been reserved for the special publication 18-00 '**White Pine County, Nevada Community Needs Assessment 2018**', prepared by Juan Carlos Cervantes, Extension Educator, University of Nevada Cooperative Extension. This report is available for review in Appendix II.

APPENDIX VII

RESOURCE NEEDS ASSESSMENT SURVEY POLL - DEPARTMENT OF ECONOMIC AND COOPERATIVE EXTENSION

RESERVED

The purpose of the survey instrument is to gather public input from a broad range of agencies, organizations, businesses, and individuals within conservation districts (CDs) who have an interest in natural resource conditions. This information will inform and assist CD supervisors when working through the CPPE process and completing Conservation Action Plans. It will help supervisors assess natural resource conservation needs and set community conservation goals in context of community conservation goals and priorities.

Completed surveys in each participating District will help ensure that projects, research, and educational priorities meet the conservation needs in each District and across the state (NVACD, 2017).

APPENDIX VIII

The following table (1-2) lists the White Pine CD RNA focus group participants that were actively involved in the polling and planning process that will lead to the formulation of a local focus group to move forward with development of a Conservation Action Plan.

CD	ENTITY/ AFFIL	CONTACT/ IND/ENTITY	TECH/ADMIN/ SERVICE	PHONE	E-MAIL	MAILING ADDRESS
White Pine	CD/Focus Group	Jeff Weeks	CD Chair	775-296-2599	doublebarjfarm@yahoo.com	744 E North Industrial Way Ely, NV 89301
White Pine	CD/Focus Group	Gina Newton	CD Secretary	860-235-7073	jennifer.regina.newton@gmail.com	1205 Park Ave Ely, NV 89301
White Pine	CD/Focus Group	Gracyne Backus	CD Supervisor	775-296-3230	gracynebackus@att.net	744 E North Industrial Way Ely, NV 89301
White Pine	CD/Focus Group	Laurie Carson	CD Supervisor	775-293-3134	carson4me@aol.com	744 E North Industrial Way Ely, NV 89301
White Pine	NRCS	Corey Lytle	District Conservationist	775-289-4065 Ext 105	cory.lytle@nv.usda.gov	744 E North Industrial Way Ely, NV 89301
White Pine	CES/CD -Focus Group	Juan Carlos Cervantes	Extension Educator	775-293-6598	Cervantes@unce.unr	950 Campton Street Ely, NV 89301
White Pine	NV DCNR	Lauren Williams	Conservation Staff Specialist	775-289-4065 ext 106 (O)	lawilliams@dcnr.nv.gov	Nevada Conservation Districts Program, 744 North Industrial Way Ely, NV 89301
White Pine	NDOW/Focus Group	Moira Kolada	Regional Biologist	775-289-1655- ext 29 (O)	mkolada@ndow.org	Nevada Department of Wildlife 1218 N. Alpha St. Ely, NV 89301
White Pine	WP CRM/Focus Group	Bill Miller	White Pine County CRM Group	775-296-1095	wmmiller1540@yahoo.com	
White Pine	CD/Focus Group	John Alsworth	Tri-County Weed Control	775-289-6341	Tcwc3@sbcglobal.net	
White Pine	BLM	Concetta Brown	Natural Resource Specialist	775-289-1800	cbrown@blm.gov	BLM Ely District Office PO Box 150266 Ely, NV 89315
White Pine	BLM	Mindy Seal	Bristlecone Field Office Manager	775-289-1800	mindy_seal@blm.gov	BLM Ely District Office PO Box 150266 Ely, NV 89315

White Pine	USFS	Jose Noriega	District Ranger, Ely Ranger Dist. Humboldt NF	775-289-3031 (O)	jnoriega@fs.fed.us	Humboldt National Forest Ely Ranger District, 825 Avenue E, PO Box 539, Ely, NV 89301
White Pine	FSA	Mickey Wines	Farm Loan Officer	775-738 -6445 Ext 105 (O)		USDA Ely Service Center 744 E. North Industrial Way Ely, Nevada 89315
White Pine	WP County	Burton Hilton	White Pine County Assessor	775-293-6542	assessorsoffice@white pinecountynv.gov	297 Nevada Northern Railway Suite 3, Ely, NV 89301

APPENDIX IX

RESOURCE NEEDS ASSESSMENT BIBLIOGRAPHY

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Figure 3-1. White Pine County Land Status

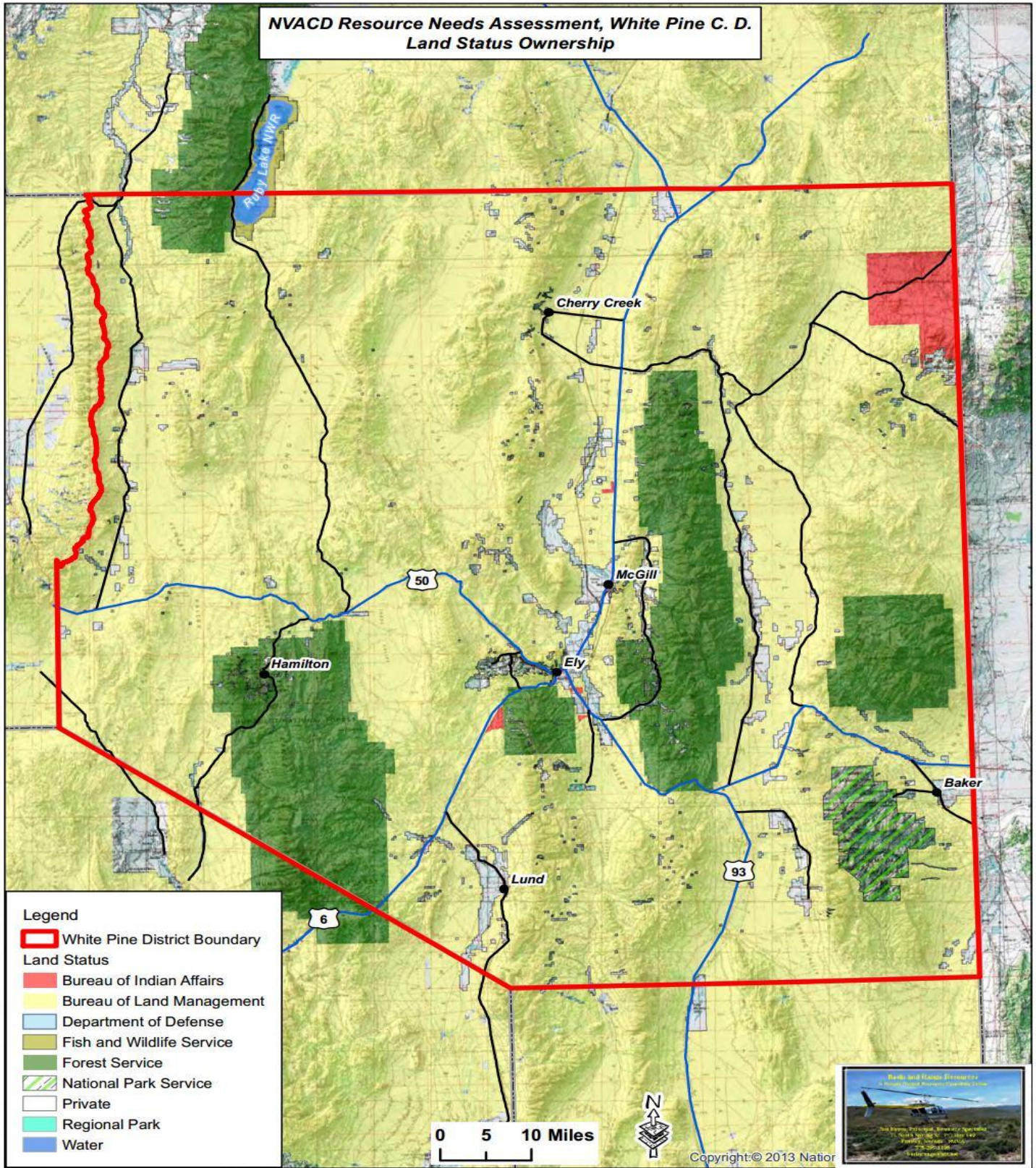


Figure 3-2. White Pine County Hydrological Basins

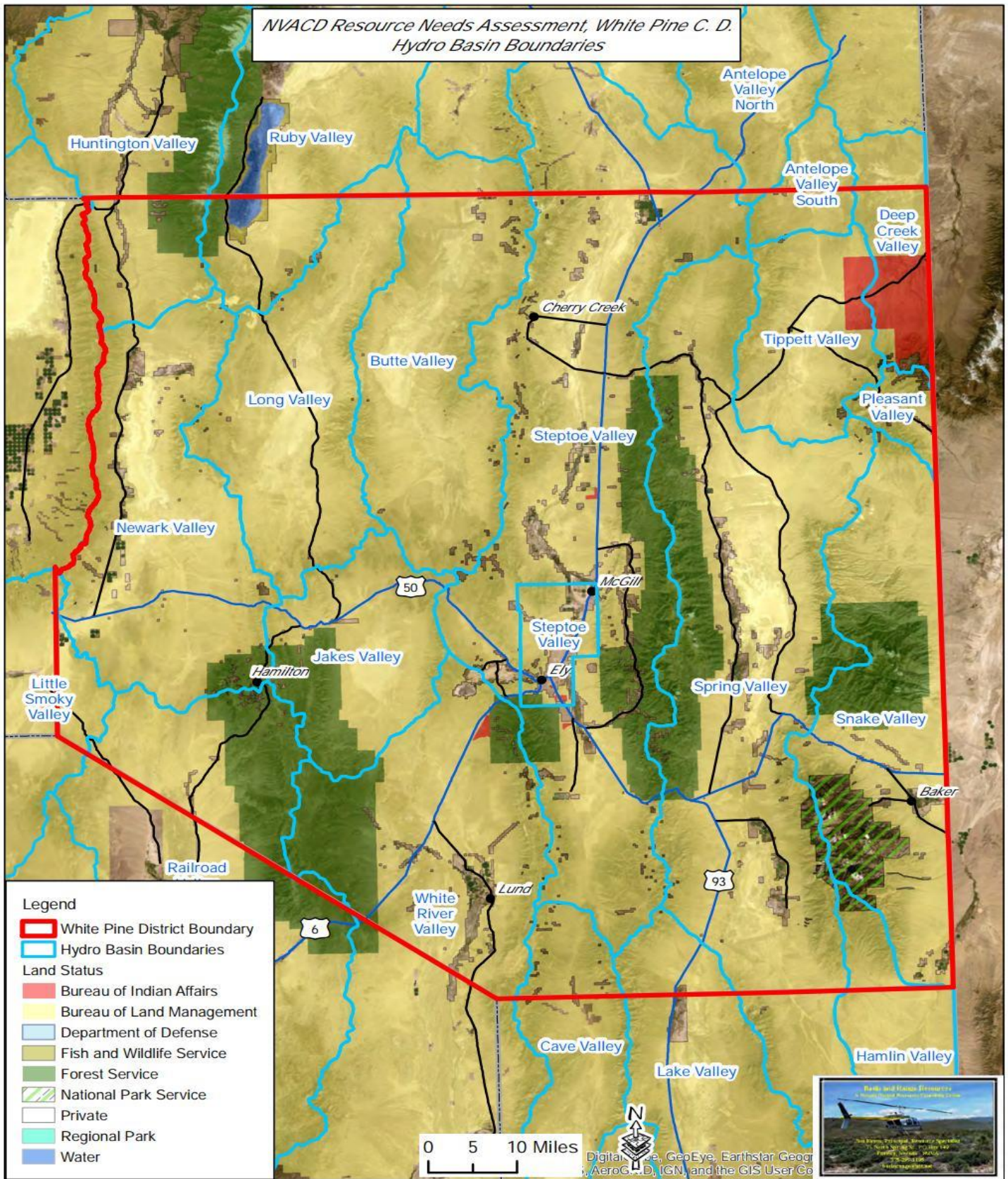


Figure 3-3. Ely District BLM Herd/Herd Management Areas

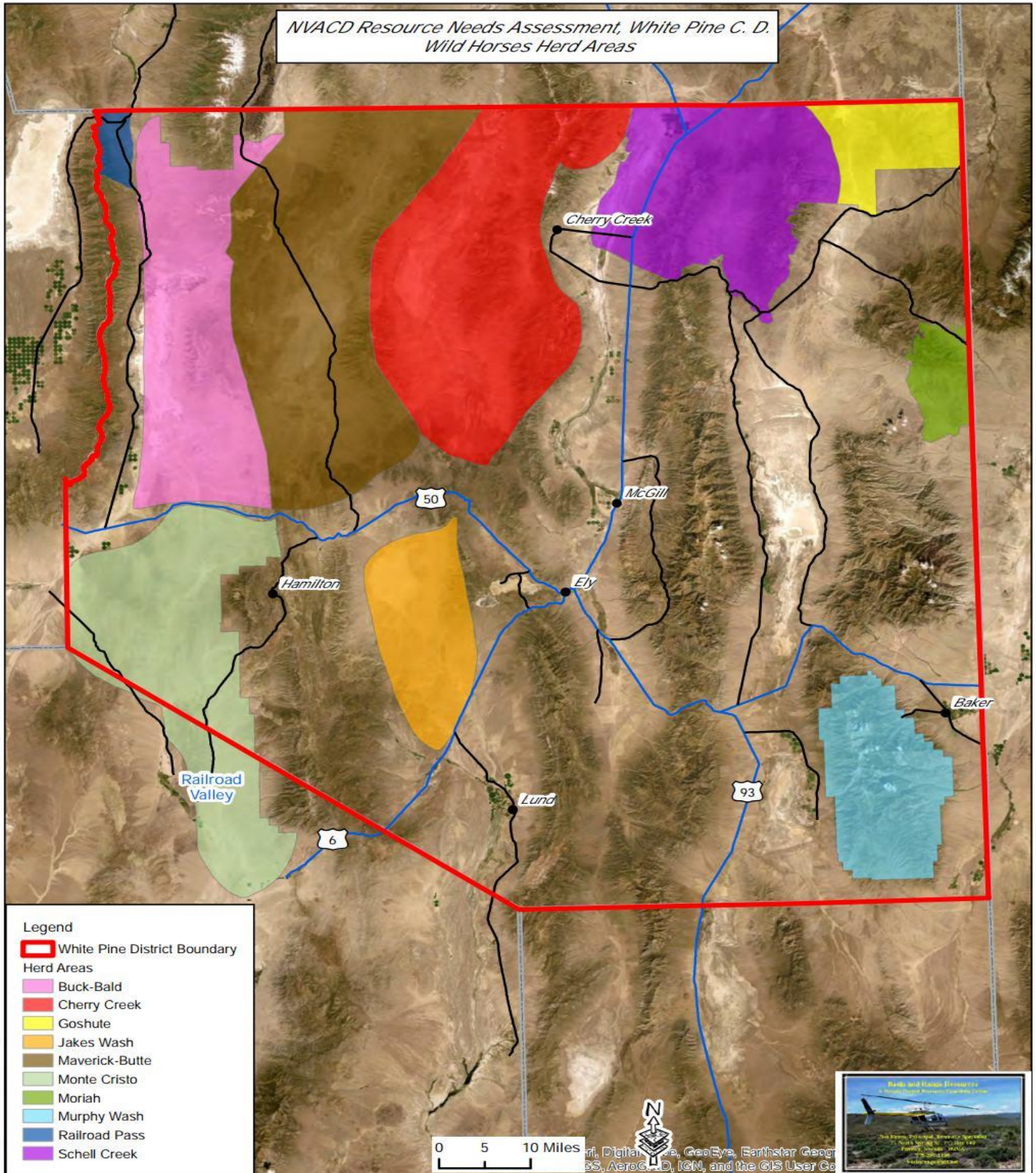


Figure 3-4. White Pine County Burn Map

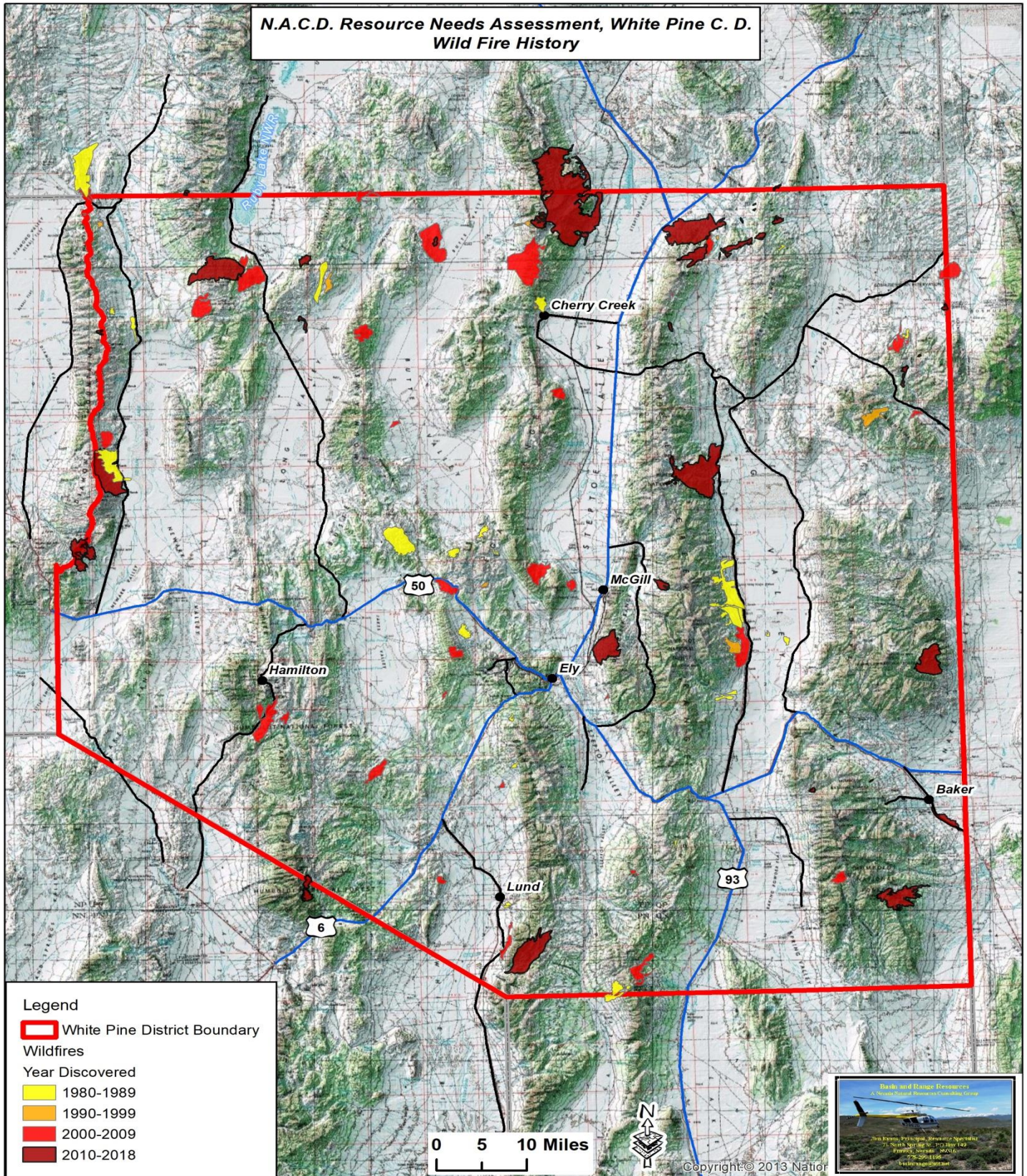


Figure 3-5. White Pine County Sage Grouse Habitat Regimens

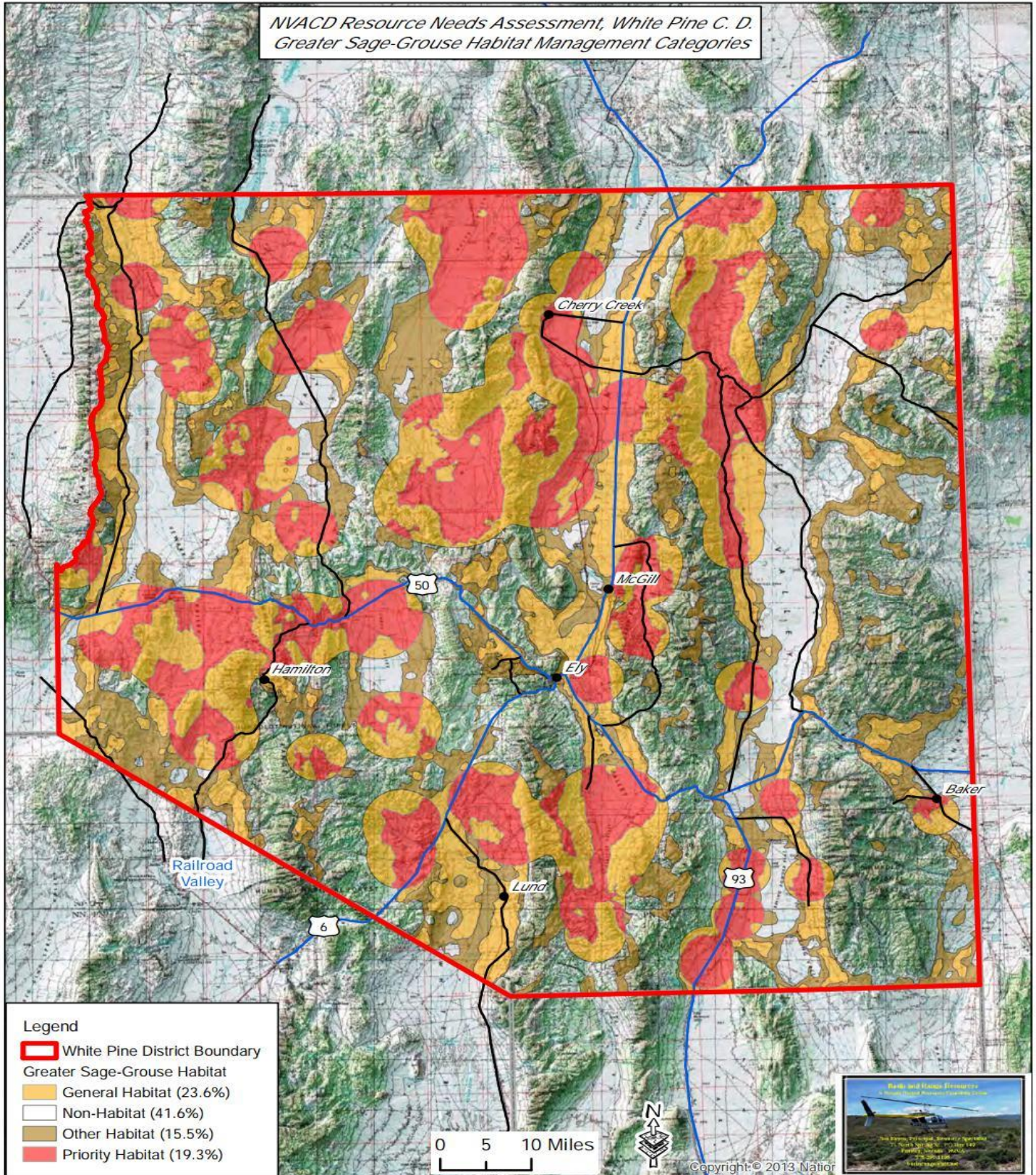


Figure 3-6. BLM & USFS Grazing Allotments - White Pine County

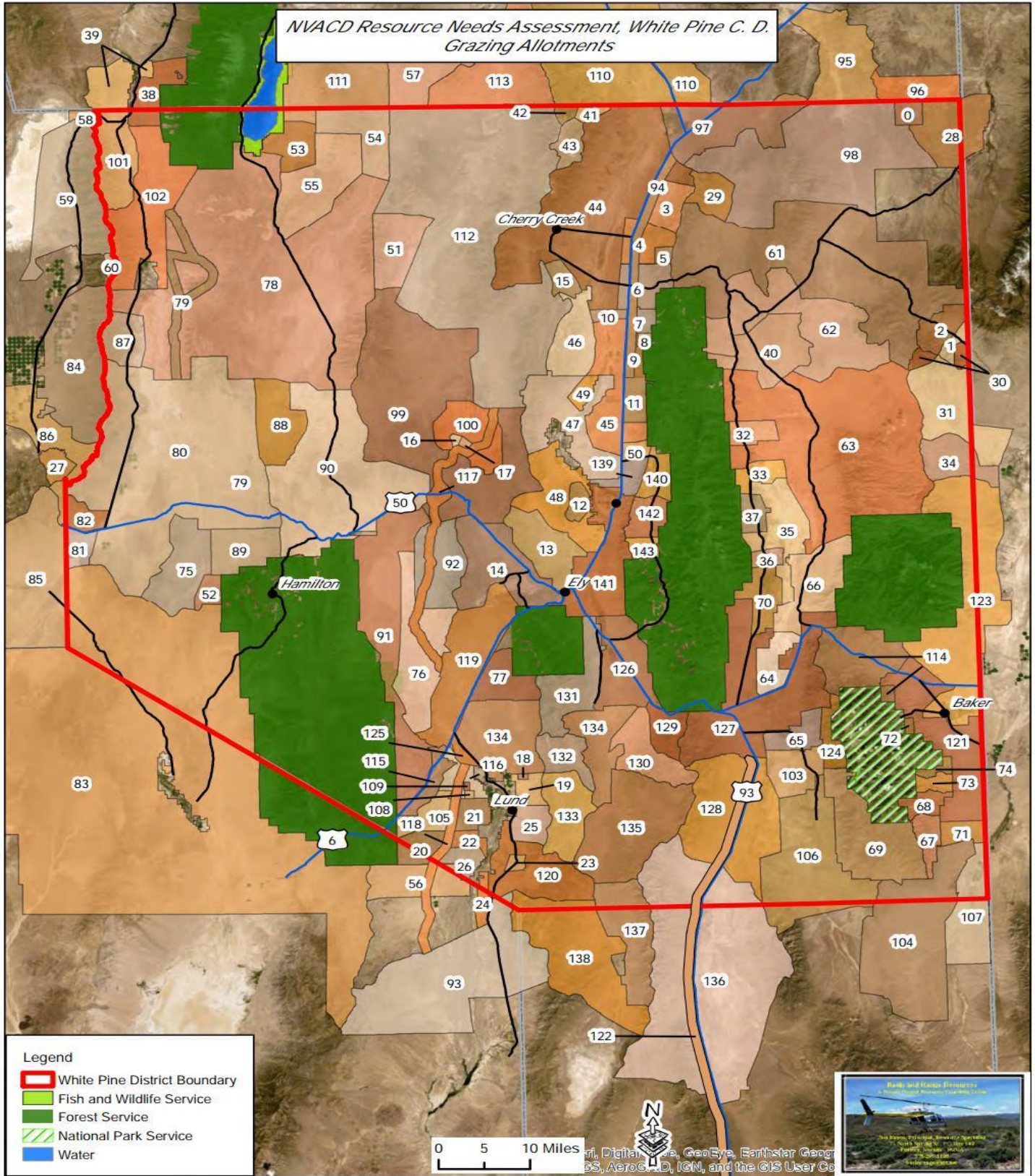


Figure 3-6A. Wilderness Area Grazing Allotments - White Pine County

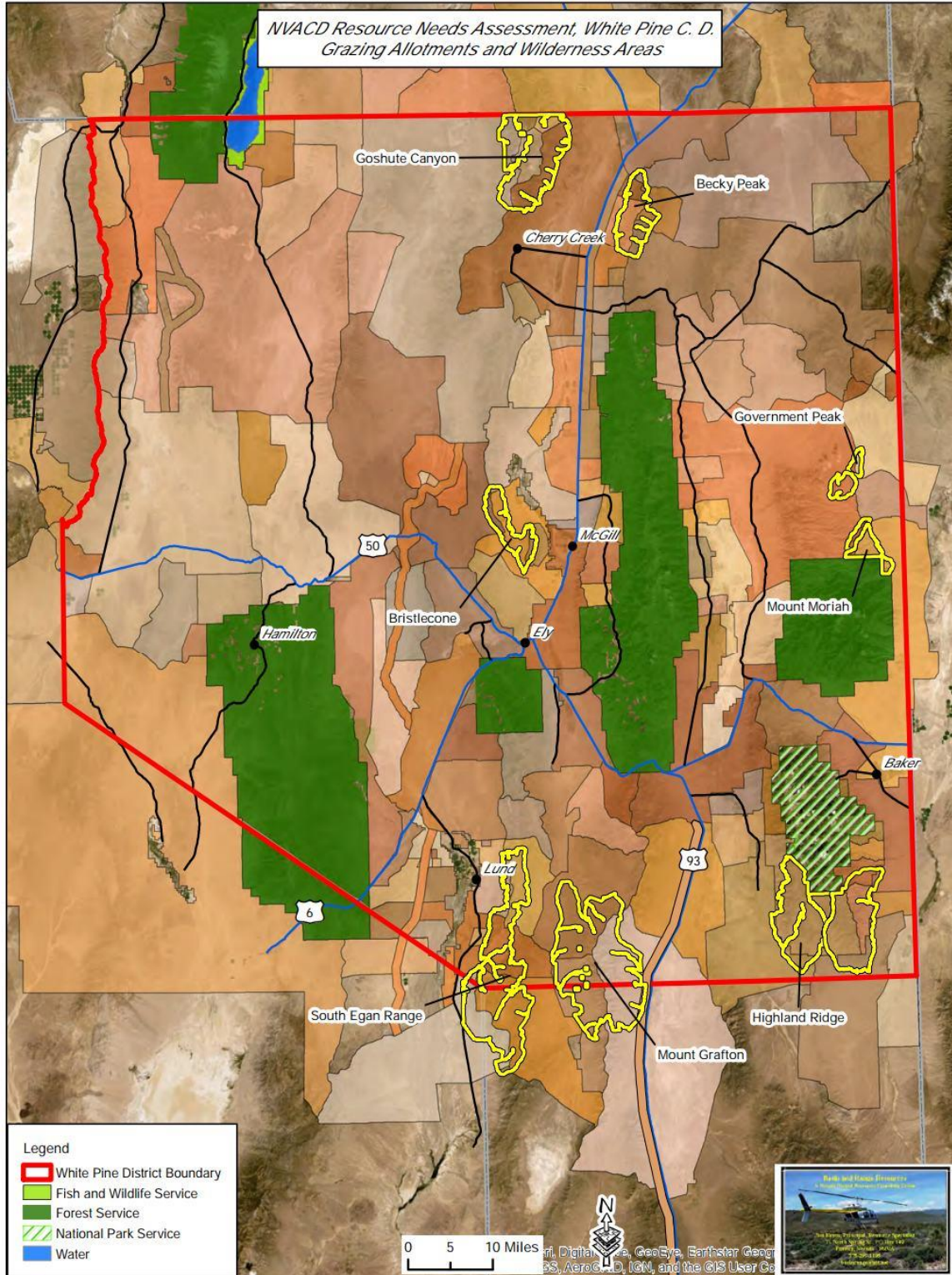


Table 3-4. Grazing Allotment Lands Legend - White Pine County

Map ID	ALLOTMENT NAME	ACRES
0	Goshute Mountain	5,771.59
1	Pleasant Valley	4,788.38
2	Mallory Springs	13,454.90
3	Becky Creek	14,086.11
4	North Steptoe	15,605.58
5	Lovell Peak	2,418.03
6	Schellbourne	17,986.09
7	Whiteman Creek	5,896.90
8	Bennett Creek	1,509.39
9	Big Indian Creek	6,417.50
10	Middle Steptoe	3,278.47
11	Second Creek	9,042.37
12	Goat Ranch	6,074.98
13	Georgetown Ranch	29,455.54
14	Copper Flat	50,656.46
15	Big Rock Seeding	6,957.09
16	South Butte Seeding	1,007.44
17	Butte Seeding	1,566.28
18	Sawmill Bench	502,784.07
19	Rock Canyon	7,268.58
20	Douglas Point	13,901.34
21	Douglas Point	8,629.71
22	Big Six Well	4,919.77
23	Six Mile Ranch	2,354.84
24	Dee Gee Spring	5,368.59
25	Brown Knoll	11,949.25
26	Swamp Cedar	7,377.80
27	Spanish Gulch	7,123.81
28	Deep Creek	37,092.40
29	Sampson Creek	13,645.46

Map ID	ALLOTMENT NAME	ACRES
30	Mill Spring	6,220.45
31	Indian George	46,642.83
32	Meadow Creek	9,330.43
33	Bassett Creek	9,091.06
34	Devils Gate	21,960.58
35	Taft Creek	32,030.04
36	Stephens Creek	4,379.93
37	McCoy Creek	8,348.45
38	Mitchell Creek	18,893.87
39	Browne	19,415.22
40	Red Hills	36,552.25
41	Indian Creek	3,314.55
42	McDermid Creek	2,703.13
43	Goshute Basin	9,911.42
44	Cherry Creek	166,140.33
45	Duckcreek Flat	36,886.69
46	Gold Canyon	25,927.54
47	Steptoe	49,004.03
48	Heusser Mountain	36,614.45
49	Heusser Mountain	5,101.05
50	Gallagher Gap	4,046.32
51	North Butte	27,896.08
52	Monte Cristo	6,444.80
53	Ruby Valley	17,441.18
54	Horse Haven	26,151.18
55	Maverick Springs	46,629.94
56	North Cove	27,314.66
57	Bald Mountain	31,414.03
58	Corta	2,933.33
59	Diamond Springs	75,026.55

Map ID	ALLOTMENT NAME	ACRES
60	North Springs	1,644.05
61	Tippet	200,673.29
62	Tippet Pass	81,300.67
63	Muncy Creek	211,453.72
64	Bastian Creek	13,800.96
65	Willard Creek	13,581.03
66	Negro Creek	34,976.38
67	Chokecherry FS	9,898.41
68	Lexington	7,846.02
69	Murphy Wash	54,540.00
70	Cleveland Ranch	16,749.07
71	North Chokecherry	8,712.75
72	Soap Creek	1,284.59
73	Big Wash	5,153.45
74	Snake Creek	3,087.93
75	South Pancake	35,638.22
76	Indian Jake	50,132.71
77	Dark Peak	19,593.13
78	Warm Springs	362,940.52
79	Warm Springs Trail	66,289.15
80	Newark	264,542.66
81	Evans	8,677.62
82	Silverado	9,394.11
83	Duckwater	849,127.18
84	Black Point	70,891.21
85	Fish Creek Ranch	295,229.93
86	Shannon Station	39,675.21
87	Strawberry	18,273.51
88	Dry Mountain	29,150.00
89	Six Mile	23,274.69

Map ID	ALLOTMENT NAME	ACRES
90	Moorman Ranch	135,877.42
91	Tom Plain	81,554.15
92	Badger Spring	33,765.40
93	Hardy Spring	125,657.84
94	North Steptoe Trail	38,022.23
95	Antelope Valley	46,110.32
96	Badlands	18,022.10
97	Becky Springs	46,375.58
98	Chin Creek	148,667.63
99	Thirty Mile Spring	188,866.05
100	South Butte	27,757.86
101	Railroad Pass	30,565.60
102	Cold Creek	64,840.90
103	Scotty Meadows	20,229.81
104	Hamblin Valley	106,368.42
105	Douglas Canyon	15,040.25
106	South Spring Valley	84,626.17
107	Chokecherry	34,991.05
108	Willow Spring Addition	656,800.46
109	Willow Spring Seeding	400,720.78
110	Carrie	154,457.23
111	Maverick/Ruby #9	61,102.63
112	Medicine Butte	310,966.73
113	West Cherry Creek	63,707.34
114	Sacramento Pass	40,587.61
115	McQueen Flat	10,168.40
116	Preston	10,544.67
117	Jakes Unit Trail	32,735.15
118	Preston Lund Trail	18,119.36
119	Grouse Wash	56,388.26

Map ID	ALLOTMENT NAME	ACRES
120	Sheep Pass	38,896.31
121	Baker Creek	58,539.54
122	Shoshone Unit Trail	38,251.37
123	Smith Creek	108,722.12
124	Shingle Creek	9,296.05
125	North Preston	3,112.28
126	Tamberlaine	37,483.36
127	Majors Allotment	103,346.25
128	Willow Springs	85,648.03
129	Cold Spring	13,129.40
130	Connors Summit	26,209.04
131	Lake Area	32,574.64
132	Little White Rock	16,645.29
133	Chimney Rock	29,296.51
134	White Rock	76,566.58
135	Cattle Camp/Cave Valley	72,693.51
136	Geyser Ranch	245,055.98
137	Cave Valley Ranch	40,828.55
138	Shingle Pass	79,786.74
139	Schoolhouse Spring	8,589.69
140	Duckcreek Basin	10,715.05
141	West Schell Bench	50,609.51
142	Duckcreek	12,672.20
143	Gilford Meadows	5,164.22