

**STANDARDS FOR RANGELAND HEALTH ASSESSMENT FOR
COGLIN HILLS ALLOTMENT #0400**

Allotment Overview
Coglin Hills #0400

Location: See Attached Map
7.5 Minute Topographic Map:
AUMs of Authorized Use: 117 AUMs
Permitted Seasons: Spring
Grazing System: Sp,Su
Allotment Category : M
Total Acres: 12,774 all BLM land

Grazing Management: There is only one pasture and the Permit is for 58 cows, 4/1-/51 or 117 AUMS. The actual use is spring grazing every year and is generally early April to Mid-May.

Standard 1 - Upland Watershed Function

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

Meets Standard

The indicators used to evaluate this standard are Soil Surface Factor (SSF), which documents accelerated erosion; and plant community composition, which indicates root occupancy of the soil profile.

Soil Surface Factor (SSF) is an indicator of accelerated erosion and is a method of documenting observations regarding erosion.

Factors used in the rating process are: soil movement, surface litter, surface rock, pedestalling, flow patterns, rills and gullies. An erosion condition class is assigned based on 0-100 scale. A copy of the form used to document SSF is attached (Appendix B, "Determination of Erosion Condition Class").

	Percent of allotment	Percent in each Soil Surface Factor Condition Class (SSF)				
		Stable	Slight	Moderate	Critical	Severe
Vegetation	67%	0	66%	34%	0	0
Unknown or Rock outcrop	23%					

A more detailed breakdown of the SSF can be found in Appendix C (attached) summarizing the Ecological Site Inventory (ESI) data by acre within the allotment. With a majority of the allotment (66%) in the slight category and no acres in the Critical or Severe Category it can be determined that erosion is not a major problem.

Another indicator of Upland Watershed condition is plant composition and community structure. Current plant composition is compared to a defined Potential Natural Plant Community for the identified soil type and precipitation zone. Using the Ecological Site Inventory, the percent of the allotment in each seral stage is summarized in the table below.

Seral Stage	Percent comparability to Potential Natural Community	Percent seral stage
Early	0-25%	61% Of mapped vegetation
Mid	26-50%	26% Of mapped vegetation
Late	51-75%	13% Of mapped vegetation
PNC	76-100%	0.3% of mapped vegetation
Rock outcrops and Unknown*		23% of Acres in Allotment

* The unknown acres are the inclusions within a vegetation community that include transition areas and plant communities too small to be mapped separately.

A majority (61%) of the mapped vegetation in the allotment is in the early seral stage. As can be seen from Appendix C, this is because the most common vegetation type the Wyoming big sagebrush community is dominated by Wyoming big sagebrush with a cheatgrass understory. This cheatgrass understory has replaced the expected perennial grasses and therefore the ESI score is low. This indicates an upland watershed that is not functioning at its potential as annual cheatgrass in the understory limits plant diversity and does not retain soil moisture or resist soil erosion the way perennial grasses would.

However this community probably crossed the ecological threshold long ago as perennial grasses disappeared from the community and have been replaced by cheatgrass.

The question that needs to be answered is whether the current grazing management practices or level of use is limiting or preventing the recovery of these cheatgrass dominated sites. Based on utilization measurements done in 10 of the last 15 years the average utilization on Thurber's needle grass was 33% with only 1 year over 50% and the use on bottlebrush squirreltail was only 25%. These light utilization levels combined with the spring only grazing system should allow the recovery of perennial grasses and the early grazing should actually reduce cheatgrass and favor perennial grasses. Therefore the current grazing management is not responsible for the ecological condition of these cheatgrass dominated sites and is not limiting their recovery. However the recovery of cheatgrass dominated sites is a long process and may require extensive reclamation activities such as native reseeding projects.

Standard 2 - Riparian/Wetland Watershed Function - Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and landform.

Meets Standard

The Coglin Hills Allotment contains 1,459 acres of palustrine and 77 acres of lacustrine habitats. All acres were classified as Proper Functioning Condition in the 1998 survey.

Standard 3 - Ecological Processes - Healthy, productive, and diverse plant and animal appropriate to soil, climate, and landform are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle. populations and communities.

Meets Standard

As described in Standard 1 and in Appendix C, the ESI data for the allotment indicates 61% of the allotment is in the early seral stage with cheatgrass having replaced perennial grasses as the dominant understory in most of those acres. Observed Apparent Trend (OAT) was also determined during the Ecological Site Inventory (Appendix C) and 63% of the vegetated acres in the allotment rated are in a downward trend, 29% rated static and 8% rated in upward trend. Most of the acres (99%) with a downward trend were in the Wyoming sagebrush/cheatgrass community. This community had a low OAT (12) rating because there was lack of perennial grasses and grass seedings, scoring only 4 points out of a possible 20 points.

Similar to Standard 1, the lack of perennial grass is not the result of current grazing management or stocking levels. The perennial grass was replaced decades ago by cheatgrass. The return of the perennial grasses will be a slow process and may require aggressive reclamation activities like mowing and reseeding.

There is one trend plot in the allotment and it is a photo trend plot that appears stable from 1971 to the present. The photos show a Wyoming big sagebrush site with very little grass understory present.

Wildlife Report

This area supports healthy diverse wildlife populations that are appropriate for the type of habitats available within this allotment. Wildlife populations within non-native seedings and heavily infested cheatgrass areas are not as diverse as they could be if they were in a late seral stage community or better ecological condition. They do, however, still have adequate levels of species diversity to remain functional. This standard is currently being met from the aspect of wildlife populations and diversity.

Botanist Report

Part of this allotment was planted in crested wheat (*Agropyron spicatum*), and this year with the spring rains the community looks healthy and vigorous. As one proceeds south through the allotment from the north, the biodiversity and numbers of forbs and plant species increase. The northeastern part of the allotment has cheat grass (*Bromus tectorum*) and a scarcity of under shrub forbs. It should be noted that there appears to be quite a bit of death camas (*Zigadenus venenosus*) and larkspur (*Delphium nuttallianum*), both plants are highly toxic to livestock and horses. However, much of the allotment has healthy grasses and forbs and is in good condition.

Weeds Report

No noxious weeds are known to occur in the allotment. Periodic inventories in this area for noxious weeds will be conducted. If detected, weeds will be treated in accordance with the Resource Area Integrated Weed Management Program EA #OR-010-2004-03.

Standard 4 - Water Quality

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

Meets Standard

There is no perennial water in the allotment.

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

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

Meets Standard

Wildlife Report

Special status wildlife species or their habitats that are present within these allotments include the bald eagle (*Haliaeetus leucocephalus*), ferruginous hawk (*Buteo regalis*), peregrine falcon (*Falco peregrinus*), burrowing owl (*Speotyto cunicularia*), sage-grouse (*Centrocercus urophasianus*), and pygmy rabbit (*Brachylagus idahoensis*). There are also three species with high public interest. These are mule deer (*Odocoileus hemionus*), California bighorn sheep (*Ovis canadensis*) and pronghorn antelope (*Antilocapra americana*).

No nesting habitat exists within this allotment for bald eagle or peregrine falcon. It is suspected that they are occasional visitors to the area. Nesting habitats is available for ferruginous hawks on cliff faces just outside the allotment boundary. No incidental sightings of peregrines exist within the vicinity of this allotment. There are no good foraging areas for peregrine falcons within close proximity of this allotment. No surveys have been conducted for ferruginous hawk, although foraging habitat exists through this and neighboring allotments. Bald eagle foraging does occur within the allotment. There are no resource conflicts for peregrine falcons, ferruginous hawks or bald eagles.

Burrowing owls have been observed at multiple locations within this allotment. Inventories for burrowing owls were conducted in adjacent allotments in 2000 and only occasional sighting were documented. There are no resource conflicts for this species.

Habitat is present for pygmy rabbits, but no known locations exist within the allotment for them. No inventories have been conducted for pygmy rabbits within the allotment and there are no sightings within the surrounding area. It is suspected that they may occur within portions of the allotment. There are no resource conflicts for these species.

Bighorn sheep inhabit this allotment mainly along the western and southern edges. There is little overlap in range between bighorns and cattle within the allotment. Bighorn sheep primarily graze on the steep slopes and rim's that are typically unused by livestock. No major conflicts exist between bighorn sheep and cattle grazing within these allotments.

Pronghorn antelope are common within the allotment and surrounding areas. Pronghorn use is concentrated in portions of this allotment where sagebrush is less dense and within crested wheatgrass seedings. Surrounding allotments may be more appealing due to wildfire and then subsequent re-seeding of crested wheat. No major conflicts exist between pronghorn and cattle grazing within this area.

Mule deer inhabit much of the area, but are widely spread and in low numbers. No high concentrations of wintering mule deer inhabit this allotment. No conflicts exist between mule deer and cattle grazing within this allotment. Bitterbrush is moderately abundant in

some areas, but there is sagebrush browse available in this allotment.

There is one known sage-grouse lek site within the allotment. It is on the southwestern side of the allotment. There are also several known historic leks (9) and active (2) leks within 10 miles of the allotment. Current sage-grouse habitats within these allotments contain no nesting habitats. Brood rearing habitats make up approximately 4% and winter habitats 92%. The other 4% of the allotment contains areas that are considered non-suitable for sage-grouse. This is primarily due to a lack of understory cover, height and density of the understory, and amount of cheatgrass over much of the allotment. It is estimated that 34% of the area has the potential to be sage-grouse nesting habitat. The remaining 66% has the potential to be winter habitat. In order to reach the potential sage-grouse habitats for this allotment, restoration work and time devoted to restore native understory grasses and forbs and a reduction of cheatgrass would have to occur. No major conflicts exist between cattle grazing and sage-grouse within this allotment at this time.

Big sagebrush habitats were assessed for sage-grouse and other sagebrush dependant species according to the methods described in Karl and Sadowski (2005). Class 1 is grassland; there is no big sagebrush canopy cover. Class 2 has a trace to 5 percent big sagebrush canopy cover. Class 3 has greater than 5 percent to 15 percent big sagebrush canopy cover. Class 4 has greater than 15 percent up to 25 percent big sagebrush canopy cover and class 5 has greater than 25 percent big sagebrush canopy cover. These canopy classes were designed to complement existing rangeland ecology and provide a simple way to portray big sagebrush structural conditions important to wildlife.

Of the area in this allotment that has the potential to be big sagebrush habitat (classes 1-5); there is 97% that falls within classes 3-5. Classes 3-5 as described in Objective 1 described by Hagen (2005), determines that retaining 70% or more of habitat in sagebrush class 3, 4 or 5 with emphasis on classes 4 and 5 will benefit sage-grouse and other sagebrush associated species. The remaining 3% (classes 1 and 2) of this allotment is non-sagebrush, shrubland, and grassland that potentially can be rehabilitated or enhanced. Based on the 70/30 split outlined in the Oregon sage-grouse plan all objectives for this allotment to maintain and/or enhance current sage-grouse habitat are being met.

Overall, this standard is being met for wildlife species within this allotment. The high amount of cheatgrass and small amounts of understory grasses appear to be the limiting factors for sage-grouse and most sagebrush dependant wildlife species. Efforts to improve this standard should focus on maintaining existing sagebrush habitats and restoration of understory grasses.

References Cited

Hagen, C.A. 2005. Greater sage-grouse conservation assessment and strategy for Oregon: a plan to maintain and enhance populations and habitat. Oregon Department of Fish and Wildlife, Salem, USA.

Karl, M. and J. Sadowski. 2005. Assessing big sagebrush at multiple spatial scales: An example in southeast Oregon. Technical Note 417. BLM/ST/ST-05/001+4400. Bureau of Land Management, Denver, CO. 41 pp.

Botantist Report

This area has been surveyed for Bureau special status plants and no plants were found. At this point in time, there are no known Bureau special status plants found within the allotment. Special Status Plants: None found, none suspected. **Meets standard.**

Plant species present:

Grasses:

Pseudoroegneria spicata (*Agropyron spicatum*)
Poa segunda
Achnatherum hymenoides (*Oryzopsis hyumenoides*)
Leymus cinereus (*Elymus cinereus*)
Elymus elymoides (*Sitanion jubatum*)

Forbs:

Few are in evidence at this time of year (late fall)
Zigadenus venenosus
Delphinium nuttallianum

Shrubs:

Ericameria nauseosa
Artemisia tridentata wyomingensis
Artemisia arbuscula

CURRENT MANAGEMENT AND RECENT MANAGEMENT CHANGES

This allotment is currently grazed in the early spring every year which allows time for the perennial grasses to recover while utilizing the cheatgrass when is green and palatable for grazing. There is only one pasture in the allotment.

Team Members

Title

Les Boothe
Alan Munhall
Vern Stofleth
Lucile Housley
Bill Cannon
Todd Forbes

Range Management Specialist
Fishery Biologist
Wildlife Biologist
Botantist
Archaeologist
Supervisory NRS

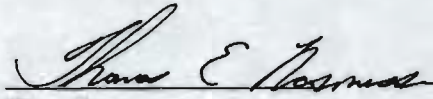
Robert Hopper
Erin McConnell

Supervisory RMS
Weed Management Specialist

Determination

- (X) Existing grazing management practices or levels of grazing use on the Coglin Hills Allotment promote achievement of significant progress towards the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

- () Existing grazing management practices or levels of grazing use on the Coglin Hills Allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.


Tom Rasmussen

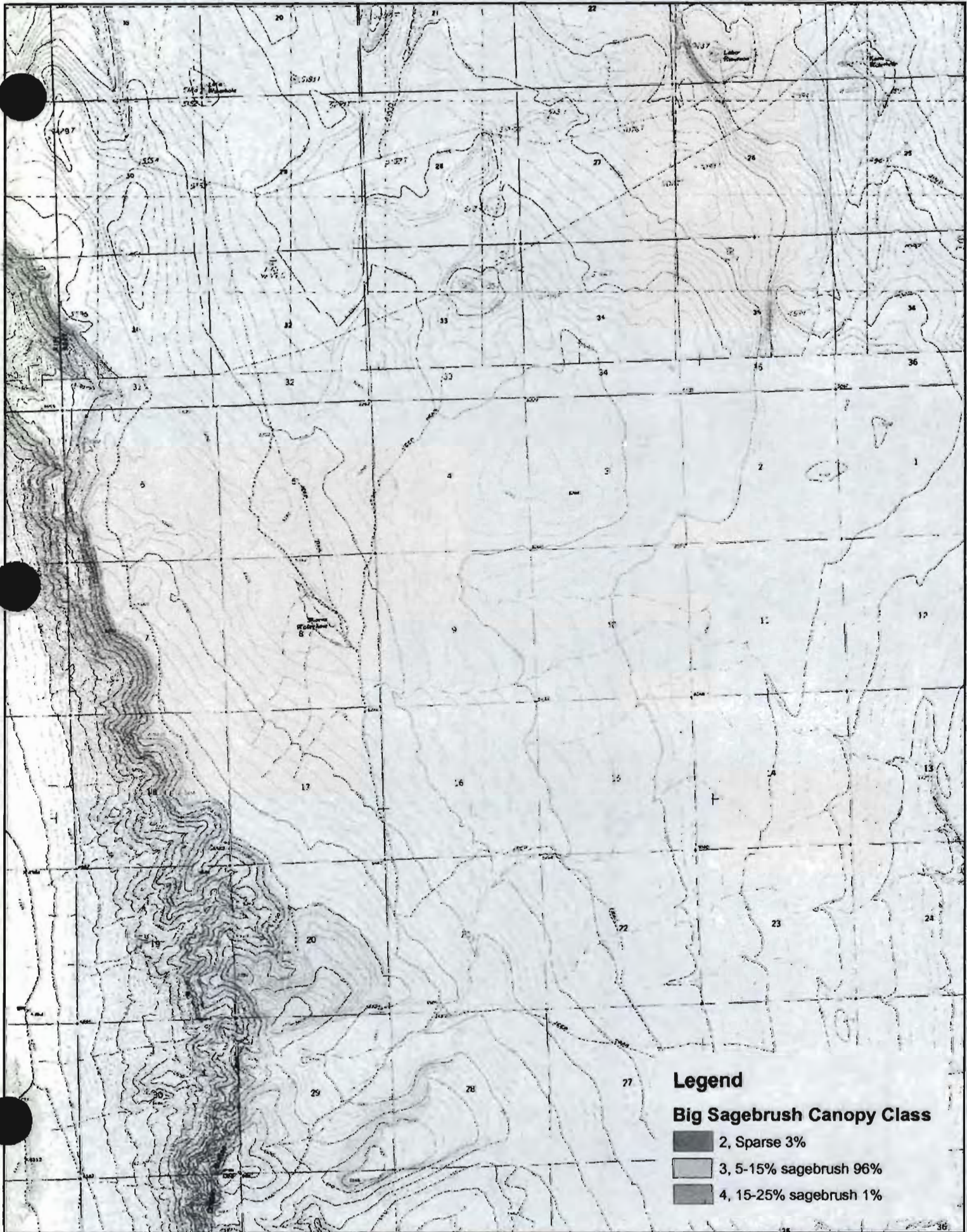
7/25/06

Date

Area Manager, Lakeview Resource Area




Appendix C Summary of ESI Data Allotment # 400

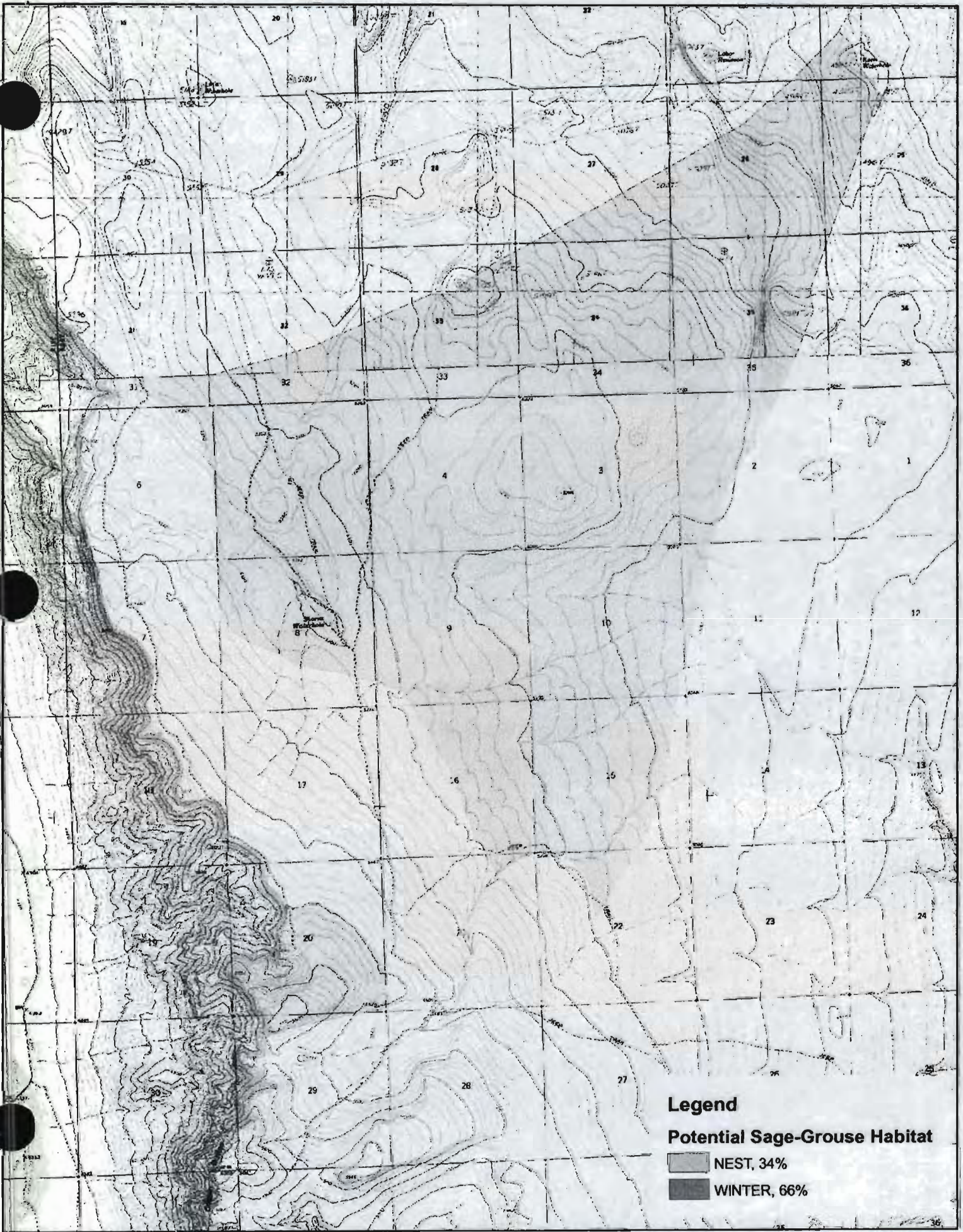
Vegetation Community	Total Acres	% of acres	SSF Acres					OAT Acres			Acres of Vegetation Community in Seral Stage			
			Stable	Slight	Moderate	Critical	Severe	Down	Static	Up	PNC	Late	Mid	Early
ARAR8/PSSPS Low sagebrush/ bluebunch wheatgrass	18	<1			18					18		18		
ARAR8/POSE4 Low sagebrush/ Sandberg's bluegrass	16	<1		16					16				16	
Total Low sagebrush communities	34	<1		16	18				16	18		18	16	
ARARN/POCU3 Black sagebrush/ Cusick's bluegrass	121	1			121				121			121		
ARARN/BRTE Black sagebrush/ cheatgrass	27	<1		27						27	27			
Total Black sagebrush communities	148	1%		27	121				121	27	27	121		
ARTRW8/BRTE Wyoming big sagebrush/ cheatgrass	6478	66		6164	314			6128	198	152			498	5980
ARTRW8/CAREX Wyoming big sagebrush/ sedge	994	10			994				994			994		
ARTRW8/ELEL5/ Wyoming big sagebrush/ squirreltail/	1434	15			1434				1434			14	1420	
ARTRW8/POSE/ Wyoming big sagebrush/ Sandberg's bluegrass	71	1			71				71				71	
ARTRW*/PSSPS Wyoming big sagebrush/ bluebunch wheatgrass	80	1		80						80		80		
Total Wyoming big sagebrush communities	9057	93%		6244	2813			6128	2697	232		1088	1989	5980
ARTRT/BRTE Basin big sagebrush/ cheatgrass	47	<1			47					47		47		
ARTRT/ELEL5 Basin big sagebrush/ squirreltail	457	5		215	242					457			457	
ARTRT/PSSPS/ Basin big sagebrush/ bluebunch wheatgrass	29	<1		29						29		29		
Total Basin big sagebrush communities	533	5%		244	289					533		76	457	
GRSP/BRTE Spiny hopsage/ cheatgrass	61	<1			61			61					61	
Total vegetation	9833													
Unknown, rock outcrop	2941	23%												
Totals	12774			6531	3302			6189	2834	810	27	1303	2523	5980
Percentages				66%	34%			63%	29%	8%		13%	26%	61%



Legend



Big Sagebrush Canopy Class

-  2, Sparse 3%
-  3, 5-15% sagebrush 96%
-  4, 15-25% sagebrush 1%



Legend

Potential Sage-Grouse Habitat

-  NEST, 34%
-  WINTER, 66%

