IDAHO DEPARTMENT OF FISH AND GAME

Cal Groen, Director

Project W-170-R-34

Progress Report

ELK

Study I, Job 1

July 1, 2009 to June 30, 2010

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STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

STATEWIDE

Summary

Rocky mountain elk are one of Idaho's premier big game animals. Elk are distributed throughout Idaho from the sagebrush-dominated deserts of the south to the dense cedar-hemlock forests of the north. Elk can be classified as habitat generalists, but they still have certain basic habitat requirements; food, water, and, where hunted, hiding cover and security areas (blocks of elk habitat with limited access). Availability and distribution of these habitat components on each seasonal range ultimately determine the distribution and number of elk that may be supported.

Elk populations increased over the last 50 years; however, total pressure on the resource has dramatically increased. Human development has reduced available habitat on winter ranges and increased access into elk habitat, and wolves were reintroduced by the U.S. Fish and Wildlife Service in 1995 resulting in another large predator on the landscape. Although populations remain strong in much of the state, some historically popular elk herds have been in decline in recent years. The poor economy and impacts of wolves are the primary reason cited by nonresidents for not returning to hunt Idaho the last couple of years.

Access into elk habitat is a primary problem facing wildlife managers today. Roads and motorized trails built into elk habitat for timber management and other activities increase hunter access and often increase elk vulnerability to harvest. As a general rule, the problem is one of access; that is, of increasing the number of people in elk habitat. The effects of roads and motorized trails, apart from people, are mixed. On the negative side, elk may vacate otherwise suitable habitats to avoid human activity; the period of time before elk return to such areas depends on the severity and duration of the disturbance but may extend several years. Elk habitat is reduced not only by the amount of land taken by the roads themselves, but also because elk tend to avoid areas adjacent to such roads and motorized trails. On the positive side, timber harvest often associated with construction of roads may open "closed" stands of timber, creating additional forage for elk in some important ranges.

Although the trade-offs associated with road and motorized trail construction may vary with each individual situation, the increase in numbers of people associated with increased access is almost

universally detrimental to elk. Elk move away from human disturbance when harassed, and elk that remain in logged and roaded areas are subject to more hunters over a longer period of time than elk that live in more secluded habitats.

Because human access into elk habitat is the primary problem associated with roads and motorized trails, perhaps the most critical habitat management factor facing wildlife managers is the use of roads and motorized trails. A comprehensive road and motorized trail management program, involving key elements including timing of construction activities, limitation on use of some roads for single-use only (i.e., timber removal), and complete or periodic closures of other roads and motorized trails to create large blocks of habitat with non-motorized access, could do much to benefit elk management.

Maintenance of the quality and quantity of habitat available to elk is crucial to their long-term survival. Many human activities destroy elk habitat, render portions unusable, decrease the ability of areas to support elk, or result in abandonment of certain areas completely. The Idaho Department of Fish and Game (Department) has direct control over only a small portion of elk habitat in Idaho. Most elk habitat is managed by other public agencies or private landowners. We must rely on others to consider, along with us, the biological needs of the elk resource for Idaho citizens in their management programs.

Unlike deer, elk populations may be highly influenced by harvest. Although not the case everywhere, most annual mortality of elk (≥one year) is associated with human harvest. Total elk harvest increased steadily through the 1980s and peaked in the mid 1990s. The goal of proper harvest management is to establish elk population objectives and establish harvest opportunities that are consistent with achieving or maintaining these population objectives. We established objectives for wintering populations of cows, total bulls, and adult (3.5+ pre-season) bulls (Fig. 1). The state has been divided into 29 elk management zones (groupings of game management units), dependent upon habitat similarity, management similarity, and/or discrete populations. Objectives have been established for each zone. The Idaho Fish and Game Commission (Commission) adopted a statewide minimum objective of 10 adult bulls:100 cows pre-season. Total population objectives were chosen based on habitat potential, harvest opportunity, depredation concerns, inter-specific issues, population performance issues, and winter feeding issues.

We monitor population objectives in most elk management zones every 3-5 years. In addition to these winter surveys, the Department monitors harvest and antler point class in the harvest. Prior to 1998, the telephone harvest survey provided information regarding harvest. Beginning in 1998, a mandatory harvest report was implemented. Given adequate compliance, the mandatory harvest report will provide more precise information on harvest and antler point data than we had previously.

Calf:cow ratio data collected during aerial surveys suggests declining recruitment in parts of the state of Idaho. Declining recruitment rates can be explained by two hypotheses: 1) populations are at or near carrying capacity and density-dependent factors are regulating productivity, or 2) predation is playing a larger role in population dynamics than previously thought.

Unfortunately, conclusive evidence to determine which hypothesis is primarily affecting current population dynamics is difficult to obtain and only exists for a couple years. Valid points can be made for either scenario.

Elk habitat in north-central Idaho was greatly improved during the early 1900s when extensive wildfires replaced heavily-forested habitats with productive shrub-fields. However, as these shrub-fields have aged and conifer reestablishment has occurred, habitat potential has been reduced. Elk populations in these areas probably represent the longest established population in the state and might be expected to show density-dependent effects first. In fact, populations in north-central Idaho generally have the lowest calf:cow ratios statewide. These observations are consistent with populations that are at or near carrying capacity.

Conversely, the primary potential predators of elk, including black bears, mountain lions, and wolves, have increased over the last couple of decades. Approximately 850 wolves inhabit the state. An increase in predators reduces adult survival and recruitment rates. Previous research in north-central Idaho documented black bear and mountain lion predation as significant factors limiting recruitment rates. Additionally, survival rates of adult cow elk in Lolo Zone (Game Management Units 10 and 12) are below the threshold necessary for population stability or growth given existing recruitment rates. Wolf predation is the leading cause of mortality.

It is likely that elk populations are influenced by a complex combination of habitat condition/characteristics and predator systems. It is also likely that temporal changes in weather patterns and precipitation affect the relative role of habitat and predators.

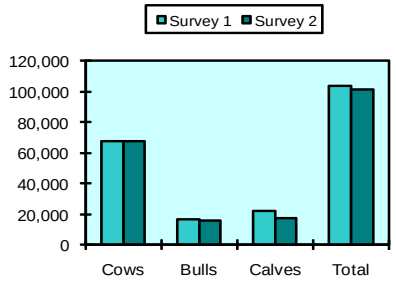
Elk Status & Objectives Statewide

Winter Status & Objectives

Statewide	Current Status				Objective		
	Cows	Calves	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
Total	(70,000)	(20,500)	(17,100)	(9,200)	82,500	19,500	11,500
Bulls per 100 Cows			(24)	(13)		18-24	10 - 14

Note: Estimates within parentheses are based on information other than sightability surveys.

Comparable Survey Totals



Population Surveys

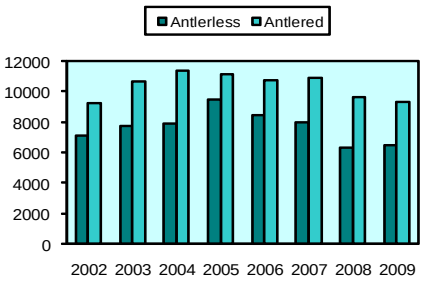
Statewide	Survey 1				Survey 2			
	Cows	Bulls	Calves	Total	Cows	Bulls	Calves	Total
Comparable Surveys Total	67,738	16,273	21,845	103,580	67,403	15,451	17,746	101,123
Per 100 Cows		24	32			23	26	

Zone Harvest Statistics

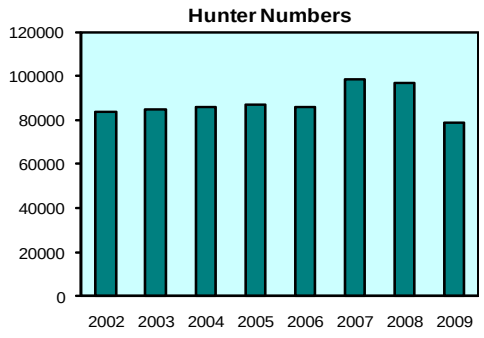
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	7100	7782	7894	9475	8442	7969	6316	6460
'A' Tag	2071	2464	2678	3130	2735	2423	2053	2317
'B' Tag	564	584	745	826	839	1185	750	655
CH Tag	4465	4734	4471	5519	4868	4361	3513	3488
Antlered Harvest	9261	10660	11357	11144	10732	10932	9678	9328
'A' Tag	2321	2634	3009	2783	2898	2922	2813	2772
'B' Tag	5043	5876	6428	6334	5972	6182	5228	4788
CH Tag	1897	2150	1920	2027	1862	1828	1637	1768
Hunter Numbers	83712	84782	85686	86829	85992	98266	96763	78841
'A' Tag	27567	27905	29452	29949	30086	38245	37589	29165
'B' Tag	37239	37723	37971	37376	37153	41530	42954	35071
CH Tag	18906	19154	18263	19504	18753	18491	16220	14605
% 6+ Points	26	31	41	46	29	31	31	34

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

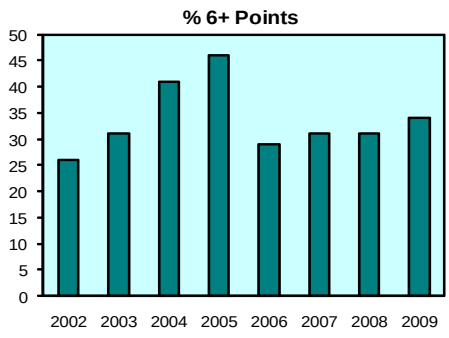


Figure 1. Statewide elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
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PANHANDLE REGION

Panhandle Zone (GMUs 1, 2, 3, 4, 4A, 5, 6, 7, 9)

Management Objectives

Objectives for the Panhandle Zone (Fig 2) are to establish a population of 2,900-3,900 cows and 600-800 bulls, including 350-475 adult bulls, as measured via aerial surveys of the Panhandle Zone Trend Area. A sightability survey was conducted during February and March 2009 to estimate elk numbers in the Panhandle Zone Trend Area. Results of the survey indicated that elk numbers were above objectives for the zone but low recruitment will be a concern in the coming years. The 2007-2008 winter was extreme in many portions of the region, with record low-elevation snowfall and persistent snow through late spring. The 2008-2009 winter also saw severe conditions that impact elk survival and recruitment. Elk hunting seasons in the Panhandle Zone were reduced in response to low recruitment rates.

Historical Perspective

Panhandle Zone is a large and diverse zone consisting of GMUs 1, 2, 3, 4, 4A, 5, 6, 7, and 9. Traditionally, the majority of elk habitat, elk numbers, and elk hunting activity occurred in GMUs 4, 4A, 6, 7, and 9. These GMUs are primarily composed of forested public lands and private timber companies and consistently record some of the highest hunter densities and elk harvest densities in the state. Expanding elk herds have recently increased hunter activities in GMUs 1, 2, 3, and 5, particularly in the agricultural areas of GMUs 3 and 5.

The Panhandle Region has essentially been managed as a "zone" since 1977, when the rest of the state eliminated general season cow harvest. The Panhandle "zone" maintained general either-sex hunting opportunities with fairly consistent hunting seasons across most of the GMUs (Appendix A). From 1982-2003, a unique feature of the Panhandle Zone was a mandatory check of all elk harvested in the zone. Throughout this period, over 42,000 elk were reported via the Panhandle Mandatory Check program database. This database provided valuable information relevant to the elk population. Beginning with the 2004 season, harvest information for the Panhandle Zone was estimated by the statewide Mandatory Harvest Report system.

Habitat Issues

Elk numbers were very low in the Panhandle Zone around the early 1900s. Major landscape changes occurred as a result of stand-replacing fires beginning in 1910. Vast areas of timber were transformed into brush fields and early succession timber stands that provided ideal conditions for elk. Additionally, elk were imported from Yellowstone National Park by sportsmen in the 1940s and released in GMUs 1, 4, and 6. Elk populations increased, with periodic setbacks due to extreme winter conditions. The most recent impact to elk numbers in the Panhandle Zone occurred as a result of the severe winters of 2007-2008 and 2008-2009. While it is generally accepted that habitat conditions in traditional elk areas have declined in quality from better conditions in the 1950s and 1960s, pioneering of elk into new areas has allowed substantial growth. Elk habitat potential will likely decrease in the long term due to an absence of large-scale stand-replacing fire.

Much of the Panhandle Zone's forested habitat experienced extensive timber harvest during the 1980s and 1990s. While this high level of timber harvest created additional elk forage, the more important impact was the construction of logging roads that allowed hunters easy access to elk and increased elk vulnerability. High road densities and threats to large areas of elk security continue to be a concern despite access management plans developed by land management agencies to address wildlife and watershed issues.

Elk depredations on croplands are not a large problem and are normally handled by hazing and kill permits issued to the landowner. An occasional one-time depredation hunt will be conducted to alleviate a specific problem. Elk depredations on nursery orchards often occur, particularly at newly established sites. The high dollar-per-acre value of nursery crops requires quick, effective action that has included construction of fencing, deployment of electronic scare devices, and the use of guard dogs. Depredation hunts or increased general hunt harvest levels are not used to solve nursery depredations, as the number of offending animals is usually low and nurseries are often located adjacent to elk habitat inhabited by non-offending animals.

Biological Issues

The elk populations in core GMUs (4, 4A, 6, 7, and 9) of this zone have shown an overall growth pattern over the past 10-15 years. Elk numbers in the peripheral GMUs (1, 2, 3, and 5) have shown substantial growth and now support considerable elk hunting opportunities. Elk losses due to the deep persistent snow during the 2007-2008 and 2008-2009 winters likely reduced the Panhandle elk population, particularly in areas with significant predator pressures. The Trend Area sightability survey conducted in February and March 2009 estimated the area's recruitment rate at 15.3 calves per 100 cows. It was determined that this low level of calf production could not support the traditional harvest seasons and thus significant reductions to all aspects of the 2009 harvest seasons for the Panhandle Zone were implemented. While helicopter herd composition surveys in January, 2010, indicated that the calf/cow ratio in the Trend Area game management units had improved (20.9 claves per 100 cows in units 4, 6 and 7 combined) the Department proposed, and area hunters agreed, to leave the conservative harvest philosophy in place for the 2010 hunting season.

Inter-specific Issues

Both white-tailed and mule deer occur in all areas of the zone. White-tailed deer are the predominant deer species and maintain high densities in the lower elevations of GMUs 1, 2, 3, 5, and 6. Mule deer numbers appear to be stable at much lower densities than whitetails and are found most frequently in the higher elevations of GMUs 1, 4, 6, 7, and 9. The moose population in the Panhandle Zone has expanded considerably over the past decade with the highest densities occurring in GMUs 1 and 2. Competitive interactions may exist among deer, moose, and elk; however, the form and extent of those relationships is presently unclear.

Predation Issues

Harvest levels of black bear and mountain lion indicate that both species are at fairly high population levels relative to recent historic numbers (20-40 years ago). However, both species appear to be at lower levels than 5-10 years ago. Harvest peaked for mountain lions in 1997 and recent harvest levels are less than half of the level experienced in 1997. Black bear harvest has also dropped over the past five years but continues to show significant fluctuation. Research conducted in adjacent areas of Idaho and other states indicates that mountain lion and bear predation may have significant impacts, particularly on elk calves.

The 2009 Wolf Conservation and Management Progress Report lists 8 documented resident packs, 13 border packs, 1-suspected pack and 2 other wolf groups for the Panhandle Region. The fall of 2009 saw the first regulated wolf harvest season in the state of Idaho. The Panhandle Wolf Zone, the same geographic area as the Panhandle Elk Zone, had a harvest quota of 30 wolves. A total of 26 wolves were reported for the 2009 harvest season. Research conducted in adjacent areas of Idaho and other states indicates that wolf predation may have significant impacts on elk populations although the exact impact in the Panhandle Elk Zone is unknown at this time.

Winter Feeding Issues

In response to extremely heavy snows in December 2008 and January 2009, a big game winter feeding program was initiated for the Panhandle Region. Emergency feed (pellets) were purchased and stored at the Regional office. As a result of moderating conditions little feeding was actually done.

Information Requirements

Aerial surveys, both population estimates and herd composition surveys, are a valuable part of regional elk management, but must be considered in combination with other information sources. The homogenous, heavy-cover habitat that typifies the Panhandle Zone necessitates caution when interpreting elk sightability survey results.

Significant Events

Weather

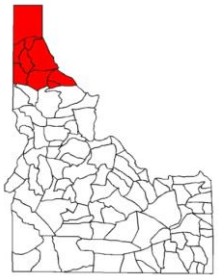
Following two record-breaking winters, the winter of 2009-2010 was extremely mild and a much needed reprieve from the standpoint of elk survival and recruitment in northern Idaho. On the traditional winter range areas (south facing slopes below 5,000 feet in elevation) snow fall was significantly below normal resulting in bare ground or patchy snow cover for much of the winter. Until approximately mid-March, the snow-water-equivalent measure used to assess the areas snow pack, reported levels of upper 50% to mid 70% of normal across the Panhandle. More frequent storms and cooler than normal temperatures for the late winter and early spring months delayed the onset of spring green-up but likely did not have a negative impact on elk survival. It is anticipated that the mild winter conditions allowed cow elk to maintain adequate body condition during pregnancy and will result in improved calf/cow ratios to be assessed in late 2010 or early 2011.

Population Surveys

A Panhandle Zone Trend Area sightability survey was conducted in January 2009. Approximately 60 hours of helicopter time (Hughes 500 from Panhandle Helicopters) was utilized to survey 40 of the 108 available search GMUs. Total elk observed (2,734) created a population estimate of 7,221 elk with a 90% confidence interval bound of 16.8%. While the bull:cow ratio was 29 bulls per 100 cows, of particular concern was the calf:cow ratio of 15.3 calves per 100 cows. This low level of recruitment is assumed to be the result of unsatisfactory cow elk body condition following the severe winter of 2007-2008 that led to abnormally low pregnancy rates, fetal development and births in the spring of 2008. It was determined that this level of recruitment was unlikely to replace the expected number of harvested elk in at least one game management GMU and reductions to the 2009 harvest season were needed.

During January and February, 2010, helicopter surveys were conducted to estimate the calf/cow ratios in several areas of the Panhandle. Six hundred eighty-six cow and calf elk were classified in game management units 4, 6 and 7, an area representative of the Panhandle Trend Area, and produced a ratio of 20.9 calves per 100 cows. This was an improvement over the 2009 Trend Area estimate of 15.3 calves per 100 cows. A ratio of 24.5 calves per 100 cows was determined from the classification of 483 elk in units 3 and 5. In game management unit 9, 313 elk were classified resulting in a ratio of 24.7 calves per 100 cows.

Elk
Panhandle Zone (GMUs 1, 2, 3, 4, 4A, 5, 6, 7, 9)



Winter Status & Objectives

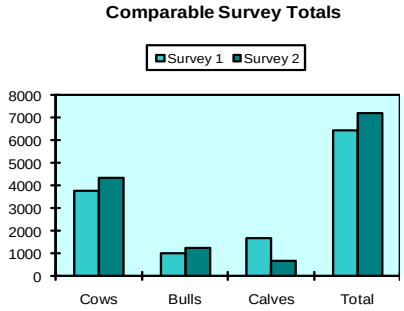
	Current Status				Objective		
Trend Area	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
	2009	4339	1256	538	2900 - 3900	600 - 800	350 - 475
Zone Total		**4339**	**1256**	**538**	**2900 - 3900**	**600 - 800**	**350 - 475**
Bulls per 100 Cows			**29**	**12**		**18-24**	**10-14**

Notes: The Panhandle Elk Trend Area includes parts of GMUs 4, 6, and 7.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
1	ND					ND				
2	ND					ND				
3	1993	367	74	118	559	ND				
4	1991	2288	728	1019	4035	1997	2009	666	409	3084
4A	1994	121	17	36	174	ND				
5	ND					ND				
6	1993	1214	740	394	2348	2002	2646	488	1216	4350
7	1998	1044	541	150	1735	2009	1665	291	189	2145
9	1998	598	108	24	730	*2004	241	57	70	368
Trend Area	**2006**	**3775**	**1015**	**1660**	**6451**	**2009**	**4339**	**1256**	**665**	**7221**
Per 100 Cows			**27**	**44**				**29**	**15**	

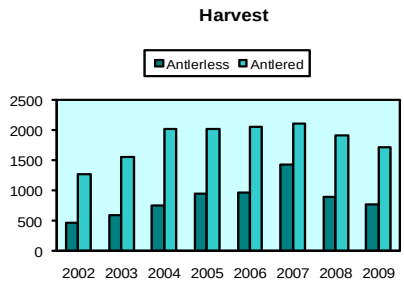
Note: ND = no survey data available.
* 2004 survey for Unit 9 is composition only - elk observed.

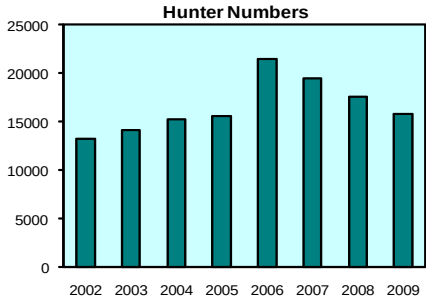


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	463	597	756	947	967	1429	888	772
'A' Tag	68	99	80	144	107	175	141	76
'B' Tag	393	482	670	791	821	1237	720	667
CH Tag	2	16	6	12	39	17	27	29
Antlered Harvest	1264	1565	2022	2018	2062	2115	1923	1711
'A' Tag	319	380	476	571	575	631	548	563
'B' Tag	943	1184	1543	1446	1483	1480	1375	1109
CH Tag	2	1	3	1	4	4	0	3
Hunter Numbers	13227	14172	15263	15617	21476	19442	17614	15866
'A' Tag	2786	3047	3346	3674	6505	4813	4326	4223
'B' Tag	10421	11082	11878	11863	14883	14578	13214	11585
CH Tag	20	43	39	80	88	51	74	58
% 6+ Points	20	27	24	27	22	22	20	26

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





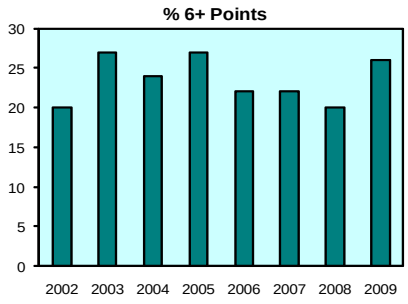


Figure 2. Panhandle Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	2	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

CLEARWATER REGION

Climatic Conditions

The Clearwater Region experienced below average snowfall for the 2009-2010 water year. According to the United States Department of Agriculture Natural Resources Conservation Service, the snow water content for the Clearwater basin was 55% of normal as of 1 April. Data from SNOTEL sites indicates that snowpack varied from 53-59% of normal for the North Fork Clearwater, Lochsa, and Selway River watersheds. The dry trend of previous months continued through March until the end of the month when high elevations received 1-3 inches of precipitation and up to 2 feet of snow. Stream flow forecasts were correspondingly low, ranging from 50-61% of normal. The Lochsa and Selway rivers received the highest stream flow forecasts while the North Fork Clearwater River was forecast at only 50% of normal. Dworshak reservoir was 67% full, at 103% of average for March.

April and May received 123% of normal precipitation, bolstering snowpack at higher elevations and delaying snowmelt. As of 1 June, the snowpack in the Clearwater basin was 62% of average with precipitation at 74% of average, indicating just how dry this winter was. Dworshak reservoir was 90% full as of 1 June. Stream flow forecasts for the North Fork Clearwater, Lochsa, and Selway rivers were still low, estimated to be about 60%. Cool spring temperatures with above average precipitation in the form of rain at lower elevations, and snow at higher elevations, resulted in slow snowmelt.

Palouse Zone (GMUs 8, 8A, 11A)

Management Objectives

Objectives for Palouse Zone (Fig 3) are to establish a population of 1,325 cows and 275 bulls, including 180 adult bulls, at ratios of 18-24 bulls:100 cows and 10-14 adult bulls:100 cows. The objectives, related to total population level (total elk numbers), were selected to represent a reasonable balance between depredation concerns and the desire to provide a reasonably large elk population. The objective for the number of adult elk represents the maximum number of elk that could be sustained under the circumstances.

The zone presently exceeds the cow abundance objective. The addition of early A-tag cow hunting opportunity and a late extra elk tag (100 ea) may slow the growth of the cow elk population. Recently, adult bull abundance and ratios have improved to the point that most objectives are being met.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk numbers increased following creation of these brush-fields, and elk numbers apparently peaked around 1950. Elk herds declined, however, through the latter part of that decade and the 1960s and 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat Issues

This zone contains portions of the highly productive Palouse and Camas prairies. Dry-land agriculture began in this zone in the 1880s and continued until the 1930s. Large areas of native grassland existed to supply forage for the large numbers of horses and mules required to farm the area. With the development of the tractor and subsequent improvements, farming efforts intensified as equipment became more capable of handling the steep, rolling hills. Currently, virtually all non-forested land is tilled, and only small, isolated patches of perennial vegetation remain but are regularly burned or treated with herbicides. Elk numbers have only recently increased to levels that have provided significant hunting opportunities. Farmland in GMUs 8 and 8A provides high-quality elk forage, and as populations have grown, so have the number of crop depredation complaints. Farmers recall few elk problems until the last decade or so. Elk currently cause damage to grain, legumes, rapeseed, canola, and hay crops throughout this zone. Most of the crop damage occurs during summer months. Damage to conifer seedlings caused by elk is a concern where reforestation projects occur on elk winter range. Late-season antlerless elk controlled hunts have had limited success in controlling elk population growth and reducing the overall damage caused by elk. To help address depredation concerns, a green-field hunt was added to the A-tag hunt in 2004. This hunt is an antlerless hunt that runs from 1 August through 15 September within one mile of cultivated fields in Palouse Zone. Additionally, in 2008, a 1 January through 31 January extra elk hunt was added (100 X-tags) to reduce elk numbers in refuge areas.

Timber harvest in the corporate timber, private timber, state land, and federal land areas of GMU 8A increased dramatically through the 1980s and 1990s, mostly to capture white pine mortality and respond to increased demand for timber products. This activity created vast acreages of early succession habitat, expanding elk habitat potential. Road construction associated with

timber harvest is extensive in some areas. Road closures in some areas have significant potential to benefit elk through improved habitat effectiveness and reduced harvest vulnerability.

Biological Issues

Elk populations in this zone have increased over the last 30 years due to increased availability of agricultural crops, natural forage, and brush-fields (both on summer and winter range). Additionally, mild winters throughout the 1980s likely enhanced calf survival. To address increasing depredation problems during the last 10 years, liberal antlerless elk harvest opportunities have been offered.

The 2004 survey in GMUs 8 and 8A revealed substantial growth of the cow elk population (>50%), while bull abundance declined (-25%). The most recent survey (2009) showed continued increases in cow numbers were accompanied by increases in bull numbers which are now meeting objective.

Elk productivity in this zone is very high, with calf:cow ratios in the mid-40s or higher. This results in a resilient elk population and allows for a liberal season length and harvest.

Inter-specific Issues

The zone supports a substantial population of white-tailed deer, while mule deer are uncommon. The zone's moose population has expanded substantially over the past decade. Competitive interactions may exist among white-tailed deer, elk, and moose. However, the form and extent of those relationships is presently unclear.

Grazing by cattle occurs on almost all of the available pasture ground and poses some competitive concerns for elk, especially during drought years.

Predation Issues

Increasing mountain lion harvest over the last few years likely reflects increased mountain lion numbers in this zone. Black bear numbers have probably remained static. Wolves are typically absent in most of the zone but are becoming more numerous.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

Sightability estimates are needed periodically to monitor progress toward achieving population objectives. In addition, the information is valuable to assess population growth with respect to depredations and antlerless harvest levels.

Elk
Palouse Zone (GMUs 8, 8A, 11A)

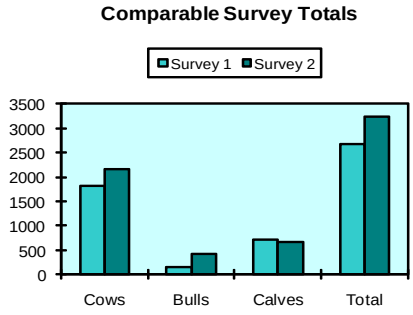
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
8	2009	504	125	45	325 - 475	50 - 100	25 - 75
8A	2009	1537	241	74	650 - 950	150 - 200	75 - 150
11A	2009	112	45	32	100 - 150	20 - 30	10 - 20
Zone Total		**2153**	**411**	**151**	**1075 - 1575**	**220 - 330**	**110 - 245**
Bulls per 100 Cows			**19**	**7**		**18 - 24**	**10 - 14**

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
8	2004	404	54	218	676	2009	504	125	153	782
8A	2004	1000	47	341	1388	2009	1537	241	489	2267
11A	2002	410	47	147	604	2009	112	45	34	191
Comparable Surveys Total		**1814**	**148**	**706**	**2668**		**2153**	**411**	**676**	**3240**
Per 100 Cows			**8**	**39**				**19**	**31**	

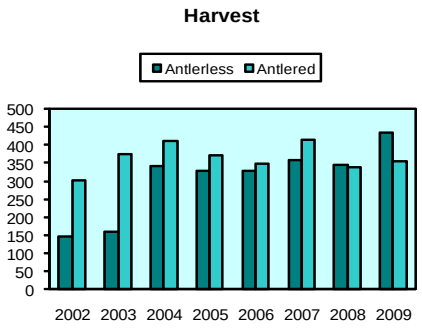
Note: ND = no survey data available.

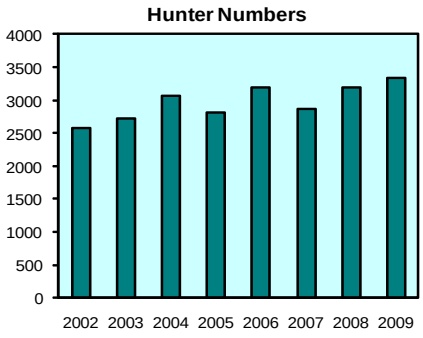


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	147	161	340	329	328	359	346	435
'A' Tag	24	39	197	187	182	172	142	166
'B' Tag	1	2	3	8	2	18	1	4
CH Tag	122	120	140	134	144	169	203	265
Antlered Harvest	301	374	410	371	347	415	339	356
'A' Tag	44	57	47	73	68	46	84	111
'B' Tag	251	313	356	279	278	365	251	236
CH Tag	6	4	7	19	1	4	4	9
Hunter Numbers	2584	2722	3060	2807	3202	2874	3187	3334
'A' Tag	490	505	906	923	1141	852	1003	982
'B' Tag	1767	1966	1874	1562	1761	1689	1682	1746
CH Tag	327	251	280	322	300	333	502	606
% 6+ Points	13	18	13	14	16	24	21.3	29

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





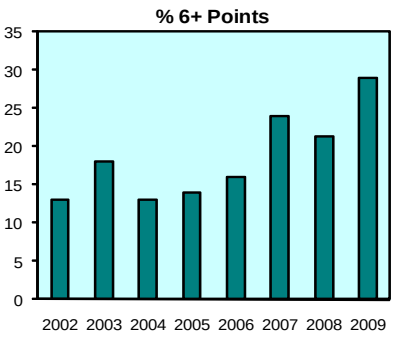


Figure 3. Palouse Zone elk status and objectives.

Lolo Zone (GMUs 10, 12)

Management Objectives

Objectives for Lolo Zone (Fig 4) are to establish a population of 7,600 cows and 1,600 bulls, including 975 adult bulls at ratios of 18-24 bulls:100 cows and 10-14 adult bulls:100 cows, respectively.

Management of the Lolo Zone elk population and setting appropriate population objectives presents a serious quandary. Existing information suggests that both predation and density dependence (habitat limitations) could be causing low calf production/recruitment. If predation is the overwhelming factor, population goals should be set higher (e.g., 15,000 adult elk), and there should be little or no cow harvest. However, if density dependence is significant, goals should be set at a low level, and cow harvest should be at moderate levels (5-10%). Because both factors may be contributing significantly, the objectives were set at intermediate levels.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk numbers increased following creation of these brush-fields, and elk numbers apparently peaked around 1950. Elk herds declined into the 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat Issues

Land ownership within this zone is almost entirely publicly-owned forest. The southern portion of the zone is within the Selway-Bitterroot Wilderness Area. Historically, habitat productivity was high in this zone. However, habitat productivity has decreased following decades of intensive fire suppression. Approximately one-third of the zone has good access for motorized vehicles with medium road densities. The remaining portion has low road densities with good trails contributing to medium-to-low big game vulnerability. Aside from damages to reforestation projects, there are no elk depredation concerns in this zone.

Until the 1930s, wildfires were the primary habitat disturbance mechanism in this zone. Between 1900 and 1934, approximately 70% of the Lochsa River drainage was burned by wildfires. Between 1926 and 1990, over 1,900 km of roads were built in this area to access marketable timber. State Highway 12 along the Lochsa River was completed in 1962 and became the primary travel corridor. In 1964, most of the southern portion of GMU 12 was designated as part of the Selway-Bitterroot Wilderness.

Biological Issues

Poor calf recruitment since the late 1980s, winter losses in 1996-1997, and a recent population declines in GMUs 10 and 12 have contributed to dramatically decreasing elk herds within this zone. Predation by wolves has been a factor in recent steep declines. Currently, elk numbers in the zone are well below objective; however, bull:cow ratios are high due to extreme losses in cow numbers.

Winter 1996-1997 was marked by severe conditions, including extremely deep snow exceeding 200% of average snow-pack in some areas. These conditions apparently caused higher-than-normal winter mortality, leading to a dramatic decline in the GMU 10 population (-48%). In addition, a survey was conducted in GMU 12 during winter 1996-1997 and those results suggested a 30% decline at that time. This data, in combination with overwhelming anecdotal information, suggests that catastrophic winter losses occurred in GMUs 10 and 12.

Calf productivity and/or recruitment have declined substantially since the late 1980s. Prior to that, winter calf:cow ratios often exceeded 30:100 and occasionally exceeded 40:100. From 1989-1999, ratios dwindled continuously down to levels below 10:100. This level of recruitment is inadequate to sustain natural mortality in the absence of hunting. Between 2002 and 2004, population surveys and composition surveys revealed recruitment levels between 27 and 30 calves:100 cows in GMU 12, and 19-26 calves:100 cows in GMU 10. However, the 2005 age composition surveys showed declines from recent levels. Most notable was the decline in GMU 12 where calves:100 cows was 13.9. The 2010 aerial survey for the Lolo zone showed a 57% decline from the 2006 survey, from 5,098 elk to 2,178. Calf:cow ratios for GMU 10 and 12 were estimated at 17.4 calves:100 cows and 6.9 calves:100 cows respectively.

Preliminary results from current research efforts suggest that both nutrition and predation may be potential causes of low calf recruitment levels. Additional work conducted in an experimental framework has also shown wolves to be a major factor.

To address low recruitment levels, declining bull numbers, and 1996-1997 winter losses, the Department capped B-tag numbers at 1,600 and closed cow elk controlled hunts beginning with the 1998 hunting season. This B-tag cap level represented a 60-65% reduction in any-bull rifle hunting opportunity. In 2010 the B-tag quota was further reduced to 1,088 and A-tag quota of 404 imposed. However, with declining elk numbers, hunter participation rates are declining and tags are not selling out. Currently, low recruitment and low adult cow survival remain a concern in this zone. Without changes in survival in these demographic groups, the objectives in this zone will not be achieved in the foreseeable future.

Inter-specific Issues

Both GMUs support small white-tailed deer populations, few mule deer, and moderate-density moose populations. Moose populations increased moderately over the past 20 years, but more recently growth may have stalled. Grazing by cattle occurs to a limited extent in the northwestern corner of GMU 12 on a U.S. Forest Service (USFS) allotment.

Predation Issues

In most of the Clearwater Region, mountain lion harvest levels have decreased over the last decade. Anecdotal data would indicate lion populations have followed suit. Black bear harvest remained somewhat stable through the last two decades, averaging between 100 and 150 bears per year until 1998, when greatly liberalized seasons led to dramatic increases in harvest. However, black bear population performance remains well above plan objectives. Wolf packs are well-established throughout the zone and appear to be stable or increasing. Current research indicates wolves having increased impacts on elk demographics and the leading cause of mortality of adult cows and calves ≥ 6 months.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

The level of the Lolo Zone B-tag cap, and any future changes in the cap, are dependent upon cow survival and recruitment levels. In addition to data collected as part of the ongoing elk/predator study in the zone, complete sightability surveys will be conducted frequently to evaluate population performance.

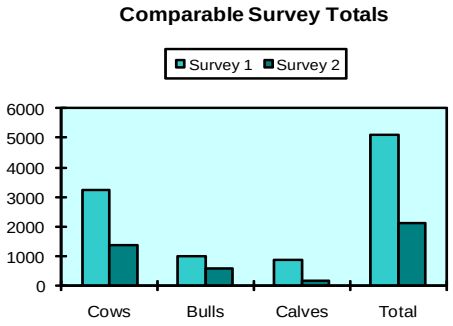
Elk
Lolo Zone (GMUs 10, 12)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
10	2010	824	461	447	4200 - 6200	900 - 1300	500 - 750
12	2010	534	133	124	1900 - 2900	400 - 600	225 - 350
Zone Total		**1358**	**594**	**571**	**6100 - 9100**	**1300 - 1900**	**725 - 1200**
Bulls per 100 Cows			**44**	**42**		**18 - 24**	**10 - 14**

Population Surveys

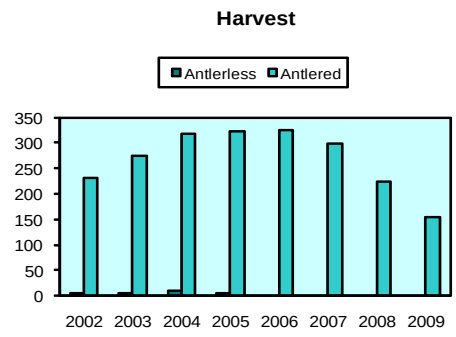
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
10	2006	2276	504	669	3449	2010	824	461	144	1429
12	2006	978	475	196	1649	2010	534	133	38	705
Comparable Surveys Total		**3254**	**979**	**865**	**5098**		**1358**	**594**	**182**	**2134**
Per 100 Cows			**30**	**27**				**44**	**13**	

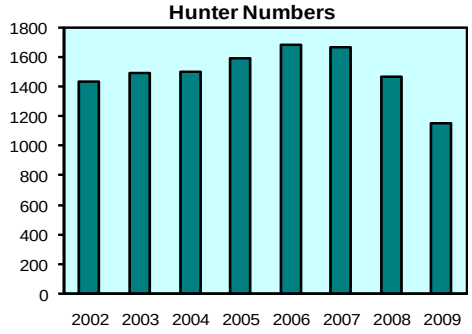


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	6	5	11	6	0	0	0	0
'A' Tag	6	4	10	6	0	0	0	0
'B' Tag	0	1	1	0	0	0	0	0
CH Tag	0	0	0	0	0	0	0	0
Antlered Harvest	232	274	317	323	324	298	224	155
'A' Tag	46	50	53	78	74	86	78	43
'B' Tag	186	224	264	245	250	212	146	112
CH Tag	0	0	0	0	0	0	0	0
Hunter Numbers	1435	1493	1494	1590	1680	1662	1462	1147
'A' Tag	322	289	334	391	474	500	411	317
'B' Tag	1113	1204	1160	1194	1206	1162	1051	830
CH Tag	0	0	0	5	0	0	0	0
% 6+ Points	22	32	27	37	30	41	34	41

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





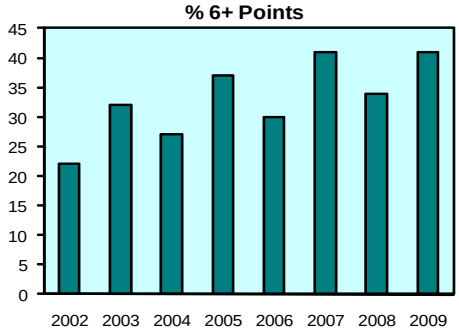


Figure 4. Lolo Zone elk status and objectives.

Dworshak Zone (GMU 10A)

Management Objectives

Objectives for Dworshak Zone (Fig 5) are to establish a population of 3,600 cows and 750 bulls, including 425 adult bulls at ratios of 18-24 bulls:100 cows and 10-14 adult bulls:100 cows. Elk populations in the Dworshak Zone remain stable, despite the addition of wolves to this zone and relatively high elk harvest. This elk population remains productive and offers considerable opportunity for elk hunters.

The zone cow harvest strategy was modified for the 2000 hunting season to address over-harvest. The current goal is a harvest of 90-110 cow elk, which would allow the population to reach objectives over time. B-tag sales were capped beginning with the 2002 hunting season to allow the zone to move toward bull and adult bull objectives.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk numbers increased following creation of these brush-fields, and elk numbers apparently peaked around 1950. Elk herds declined into the 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat issues

Dworshak Zone consists of GMU 10A, which is three-fourths timberland and one-fourth open or agricultural lands and is bisected by canyons leading to Clearwater River. The first wave of timber harvest in this zone occurred during the early 1900s and consisted mostly of removing the most valuable timber species and largest trees. During the 1970s, timber harvest increased fairly dramatically, and new roads provided access to previously inaccessible areas. In 1971, Dworshak Reservoir flooded approximately 45 miles of the North Fork Clearwater River corridor with slack water and permanently removed thousands of acres of prime, low-elevation winter range for big game. During the early 1970s, only a few hundred elk were observed wintering along the river under the predominantly old-growth cedar hemlock forest. The timberland is owned predominantly by Potlatch Corporation, Idaho Department of Lands (IDL), and USFS. Access is very good throughout the zone and timber harvest occurs on most available timber ground. High open and closed road densities contribute to high elk vulnerability and low habitat effectiveness. During the 1980s and 1990s, timber harvest occurred on almost all available state and private land as demand for timber and management of these lands intensified. Despite the reservoir, extensive logging along the river corridor improved winter range in this

GMU. South aspect forests were cleared to provide timber products and inadvertently provided quality winter range.

Depredations have increased on agricultural land within the past 10 years in this zone due to increases in both deer and elk populations and changes in land ownership that reduced hunting opportunities. Elk cause damage to grain, legumes, and hay crops within the south-central portion of this zone during summer months. Occasional damage to stored hay, silage, and winter wheat occurs during winters with heavy snow accumulation. Damage to conifer seedlings by elk is a concern in the remaining portions of this zone where reforestation projects overlap with elk winter range. Controlled antlerless elk seasons have been successful in reducing the overall damage in this zone.

Biological Issues

Historically, GMU 10A has supported a productive elk population. From 1992-1996, recruitment averaged 34 calves:100 cows. From 1997-1999, recruitment dropped to an average of 19 calves:100 cows. However, the 2001 sightability survey revealed recruitment at 30 calves:100 cows. The most recent survey in 2007 indicated 26 calves:100 cows. If this level is sustained, antlerless harvest levels might be liberalized in the future.

Inter-specific Issues

GMU 10A supports a substantial white-tailed deer population, few mule deer, and a small moose population. The white-tailed deer population has increased dramatically over the past 20 years. Significant competitive interactions between white-tailed deer and elk may exist. However, the form and extent of those relationships is presently unclear.

Significant livestock grazing on rangeland in the southeastern portion of the zone impacts elk habitat potential. Most of that grazing occurs on habitats used exclusively during winter months. Additionally, range allotments are present on summer and winter habitat on USFS, IDL, and Potlatch Corporation lands elsewhere in the zone.

Predation Issues

Predator numbers, mountain lions in particular, have increased to high levels in the recent past. In GMUs 8, 8A, 10, 10A, 11, and 11A combined, mountain lion harvest levels increased steadily from 1991 (43 lions) to a peak in 1997 (149 lions). Elk harvest subsequently declined over this same timeframe. Anecdotal observations suggest this trend in harvest was related to a similar trend in mountain lion populations. Black bear harvest has increased slowly and recently stabilized. However, harvest levels remain below 2000-2010 bear management plan objectives. The long-term increase in mountain lion and bear populations may be adversely affecting elk population performance. However, there is inadequate information to objectively assess those potential impacts. Wolves are established within Dworshak Zone. Currently, at least 4 packs inhabit the zone for at least part of the year.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

Sightability surveys will be needed periodically to evaluate population performance relative to plan objectives. Composition surveys may be conducted at more frequent intervals to evaluate potential changes in recruitment.

Elk
Dworshak Zone (GMU 10A)

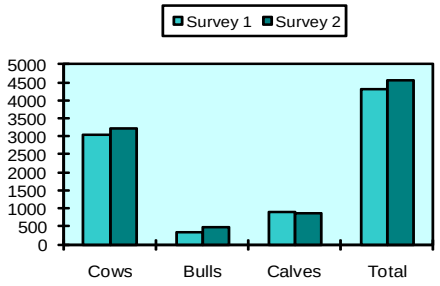
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
10A	2007	3236	477	140	2900 - 4300	600 - 900	350 - 500
Zone Total		**3236**	**477**	**140**	**2900 - 4300**	**600 - 900**	**350 - 500**
Bulls per 100 Cows			**15**	**4**		**18 - 24**	**10 - 14**

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
10A	2001	3045	339	914	4298	2007	3236	477	848	4561
Comparable Surveys Total		**3045**	**339**	**914**	**4298**		**3236**	**477**	**848**	**4561**
Per 100 Cows			**11**	**30**				**15**	**26**	

Comparable Survey Totals

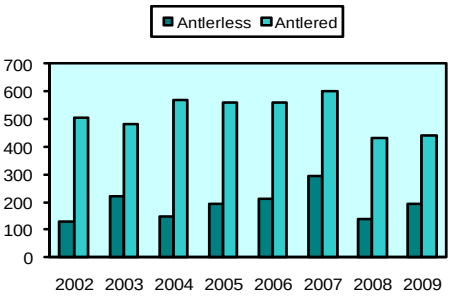


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	128	221	149	195	210	293	136	192
'A' Tag	105	189	123	158	177	256	99	158
'B' Tag	1	2	5	6	4	4	1	3
CH Tag	22	30	21	31	29	33	36	31
Antlered Harvest	504	482	571	562	558	600	433	439
'A' Tag	96	116	128	126	137	142	80	99
'B' Tag	407	364	442	436	420	458	353	340
CH Tag	1	2	1	0	1	0	0	0
Hunter Numbers	3520	3271	3405	3308	3687	3464	3443	3194
'A' Tag	1106	1129	1152	1143	1467	1280	1205	1049
'B' Tag	2367	2098	2219	2102	2177	2139	2185	2114
CH Tag	47	44	34	63	43	45	53	31
% 6+ Points	10	13	16	16	14	16	22	31

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers

% 6+ Points

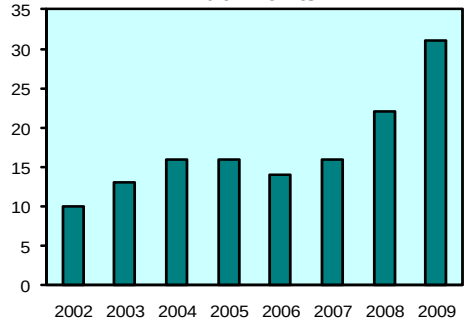


Figure 5. Dworshak Zone elk status and objectives.

Hells Canyon Zone (GMUs 11, 13, 18)

Management Objectives

Objectives for Hells Canyon Zone (Fig 6) are to establish a population of 1,950 cows and 525 bulls, including 325 adult bulls at ratios of 25-29 bulls:100 cows in GMU 11, 18-24 bulls:100 cows in GMU 13, and 30-34 bulls:100 cows in GMU 18. Currently all population objectives in GMUs 11, 13, and 18 are being met or exceeded. Permit levels were increased in 2009 in all GMUs to slow or cap growth.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk production in areas adjacent to this GMU increased around the turn of the century, and elk repopulated this zone by the 1960s. Elk herds declined into the 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat Issues

Habitat productivity varies widely throughout the zone from steep, dry, river-canyon grasslands having low annual precipitation to higher elevation forests with good habitat productivity and greater precipitation. Late succession forest cover types have become fragmented within the zone. Many grassland cover types have been invaded by various weeds and non-native grasses, including cheatgrass and yellow star thistle. Road density is moderate, and access is restricted in many areas. This results in medium to low vulnerability of big game to hunters.

Historically, sheep and cattle ranchers and miners homesteaded the canyon lands in this zone, while prairie land was settled by farmers. Around the turn of the century, northern GMU 11 was under intensive use for dry-land agriculture and fruit orchards. Many resort cabins were built near and around the town of Waha. Later, many cabins were built along the mail stage route from Lewiston to Cottonwood via Soldiers Meadows and Forest. A mill was built in Winchester, along with numerous smaller mills on Craig Mountain, and the forested portion of Craig Mountain was extensively logged. The forests were frequently high-graded, and the existing forests still show the scars. In addition, past improper grazing practices severely degraded many meadow areas and allowed invasion of noxious weed species on dryer sites.

This zone contains large tracts of both private and publicly-owned land. GMU 11 is mostly private land except for Craig Mountain Wildlife Management Area (CMWMA) along the Snake and Salmon rivers. The CMWMA consists of two major GMUs: the Billy Creek GMU (16,123

acres), which was obtained between 1971 and 1983; and the Peter T. Johnson Mitigation Area (59,991 acres), which was acquired in 1995 as partial mitigation for Dworshak Reservoir. GMU 13 has been mostly under private ownership since settlement and is managed mostly for agriculture and livestock. Historically, sheepherders ran their flocks in the canyons of GMU 18, and some logging occurred in the forested areas of this GMU. GMU 18 is two-thirds public land with the remaining in private ownership located at lower elevations along Salmon River. The majority of Hells Canyon Wilderness Area, which was designated as such in 1975, is in GMU 18.

Depredations have increased during the past 10 years in this zone due to increases in white-tailed deer and elk populations. Elk cause damage to grain, legumes, hay, and rangeland forage. Cultivated crops are the primary concern in the north, while livestock forage is the primary concern in the remaining portion of this zone. Controlled antlerless elk seasons have had limited success in reducing the overall damage.

Biological Issues

Elk hunting in this zone is offered only on a controlled-hunt basis. Across the zone, sightability survey data indicate that cow and bull elk are increasing, with stable calf recruitment.

Inter-specific Issues

Grazing by cattle is gradually decreasing in the zone due to reductions in USFS and Bureau of Land Management (BLM) allotments, along with land ownership shifting from private to public. Mule deer populations have declined dramatically, possibly alleviating any competitive relationships that may have existed with elk, although it is doubtful that any such effects would be significant.

Predation Issues

In most of the Clearwater Region, mountain lion harvest has increased over the last several years. In DAUs 1E and 1F (GMUs 8, 11, 11A, 13, 14, 15, 16, and 18), black bear harvest has increased steadily, but harvest levels in both DAUs are currently below plan objectives. Wolves are present, but as yet have not become established discrete packs in this zone.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

Sightability surveys will be required periodically across the zone to evaluate population performance relative to plan objectives.

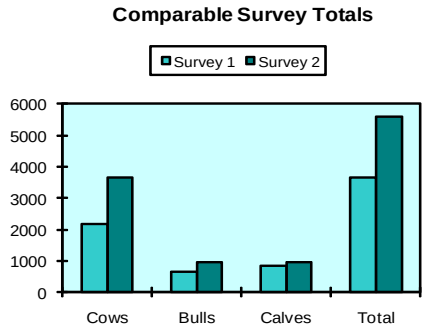
Elk
Hells Canyon Zone (GMUs 11, 13, 18)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
11	2009	969	367	202	600 - 900	150 - 250	100 - 150
13	2009	1346	212	92	500 - 700	100 - 150	50 - 100
18	2009	1327	394	216	500 - 700	150 - 225	100 - 150
Zone Total		**3642**	**973**	**510**	**1600 - 2300**	**400 - 625**	**250 - 400**
Bulls per 100 Cows			**27**	**14**		**25 - 29**	**14 - 18**

Population Surveys

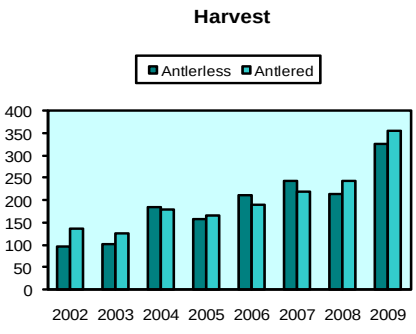
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
11	2002	711	220	364	1295	2009	969	367	228	1564
13	2001	890	185	350	1425	2009	1346	212	335	1893
18	2000	558	253	138	949	2009	1327	394	402	2123
Comparable Surveys Total		**2159**	**658**	**852**	**3669**		**3642**	**973**	**965**	**5580**
Per 100 Cows			**30**	**39**				**27**	**26**	

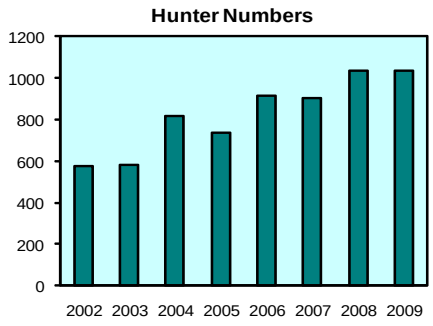


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	96	102	185	159	211	243	214	327
'A' Tag	0	0	0	0	0	0	0	0
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	96	102	185	159	211	243	214	327
Antlered Harvest	137	127	178	166	190	220	243	356
'A' Tag	0	0	0	0	0	0	0	0
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	137	127	178	166	190	220	243	356
Hunter Numbers	575	580	817	737	915	902	1034	1034
'A' Tag	11	11	0	0	0	0	0	0
'B' Tag	20	40	0	0	0	0	0	0
CH Tag	544	529	817	737	915	902	1034	1525
% 6+ Points	48	50	52	46	53	53	48	51

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





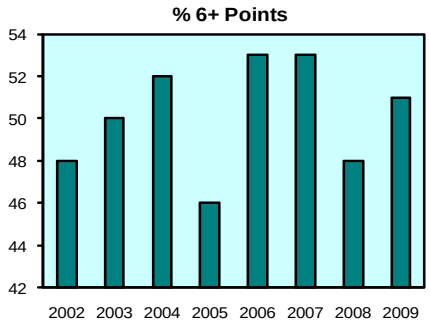


Figure 6. Hells Canyon Zone elk status and objectives.

Elk City Zone (GMUs 14, 15, 16)

Management Objectives

Objectives for Elk City Zone (Fig 7) are to establish a population of 3,900 cows and 850 bulls, including 475 adult bulls at ratios of 18-24 bulls:100 cows and 10-14 adult bulls:100 cows. The current cow harvest management strategy has allowed that segment of the population to achieve its objective in 2008. B-tag sales were capped beginning with the 2002 hunting season to allow the bull segment of the population to reach objectives in 2008.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk numbers increased following creation of these brush-fields, and elk numbers apparently peaked around 1950. Elk herds declined into the 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat Issues

The prairie regions of this zone were converted to agriculture and ranching by early settlers. In 1862, gold was discovered near the current location of Elk City in GMU 15. After the readily available gold was depleted, miners turned to dredging activities where rivers ran through meadows. Crooked, American, and Red rivers were channelized and rerouted several times during the extraction processes, which continued commercially until the 1950s. Logging began with mining activities to supply wood for the mines, but in the 1940s, logging activities became commercial and resulted in an extensive network of roads throughout a large portion of this zone. In 1964, with the passage of the Wilderness Act, a small portion of GMU 16 was designated as a part of the Selway-Bitterroot Wilderness. In 1978, portions of GMUs 14 and 15 were included in the Gospel Hump Wilderness.

Land ownership in this zone is approximately 80% public with the remaining 20% private. The privately-owned portions are at lower elevations along the Clearwater and Salmon rivers. Approximately 8% of this zone is wilderness. Habitat productivity is relatively high in comparison to most other Clearwater Region big game GMUs. Productive conifer forests with intermixed grasslands characterize the majority of this zone. Many forested areas have become overgrown with lodgepole pine and fir due to fire suppression during the past 40 years. Both open and closed road densities are high within the zone, contributing to significant big game vulnerability during hunting seasons along with relatively high illegal harvest throughout the year. Noxious weeds, especially yellow star thistle and spotted knapweed, have increased within

the past 15 years and in some areas, are out-competing grasses and forbs on important elk habitats.

Depredations have increased within the past 10 years in this zone due to increases in both deer and elk populations and changes in land ownership that reduce hunting opportunities. Livestock operators are concerned with elk use of pasture and rangeland forage during spring months prior to release of livestock on these grounds. Some damage to grain crops occurs during summer. Several past fencing projects have helped to reduce concerns of elk damaging stored hay during winters with heavy snow accumulation.

Biological Issues

Across the zone, cow elk numbers are stable to slightly increasing while numbers of bull elk are increasing. Bull:cow ratios ranged between 12.9 and 13.6 on the 2000 surveys. In 2002, a cap of 1,790 B-tag hunters was initiated. The most recent surveys in GMUs 14 and 15 have shown increasing cow elk numbers.

Historically, calf recruitment in GMUs 14 and 15 has been high, averaging 38 calves:100 cows from 1987-1993. However, the 2000 surveys revealed recruitment of 25 calves:100 cows, suggesting that a decline in recruitment, similar to surrounding areas, may be occurring. This trend in low calf recruitment continued in 2008 surveys. Chronic low recruitment is a concern in GMU 16, which averaged 19 calves:100 cows from 1990-2000 and fell to 17 in 2008.

Inter-specific Issues

Livestock graze much of this zone on both private and public land. On private land on the west side of GMUs 14 and 16, competition with domestic livestock may be significant, especially during winter.

Predation Issues

Mountain lion harvest in this zone peaked a decade ago. Anecdotal information suggests a decrease in mountain lion abundance. Black bear harvest has likewise increased over the past decade. Harvest is currently between 80 and 90 bears annually. Wolves are well established in the zone. Pack activity has been confirmed in all three GMUs.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

All three GMUs should be surveyed periodically to evaluate population performance relative to plan objectives.

Elk

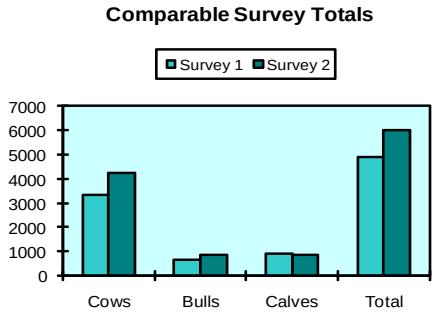
Elk City Zone (GMUs 14, 15, 16)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
14	2008	2402	419	262	1400 - 2000	300 - 450	150 - 250
15	2008	965	169	126	950 - 1450	200 - 300	100 - 175
16	2008	897	275	239	800 - 1200	175 - 250	100 - 150
Zone Total		**4264**	**863**	**627**	**3150 - 4650**	**675 - 1000**	**350 - 575**
Bulls per 100 Cows			**20**	**15**		**18 - 24**	**10 - 14**

Population Surveys

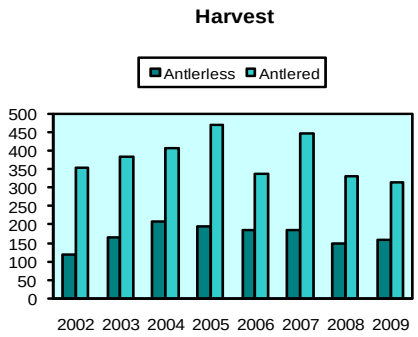
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
14	2004	1478	439	499	2416	2008	2402	419	573	3394
15	2006	929	127	205	1261	2008	965	169	148	1282
16	2000	927	120	200	1247	2008	897	275	154	1326
Comparable Surveys Total		**3334**	**686**	**904**	**4924**		**4264**	**863**	**875**	**6002**
Per 100 Cows			**21**	**27**				**20**	**21**	

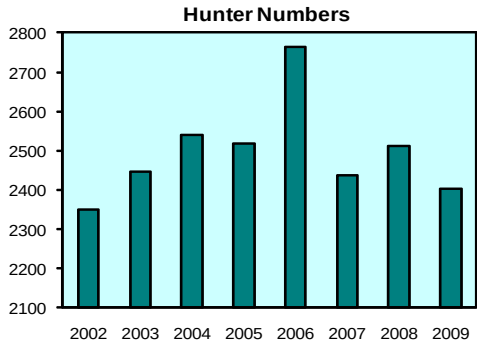


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	118	165	208	196	186	186	148	160
'A' Tag	83	112	167	138	144	124	94	110
'B' Tag	2	5	5	1	1	3	0	2
CH Tag	33	48	36	57	41	59	54	48
Antlered Harvest	352	382	407	469	338	446	330	313
'A' Tag	64	74	57	77	54	52	62	34
'B' Tag	286	308	350	392	282	394	268	278
CH Tag	2	0	0	0	2	0	0	1
Hunter Numbers	2351	2447	2540	2517	2764	2438	2512	2402
'A' Tag	832	865	875	848	939	789	868	749
'B' Tag	1456	1517	1600	1579	1760	1576	1565	1584
CH Tag	63	65	65	90	65	73	79	69
% 6+ Points	23	27	31	30	30	20	40	37

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





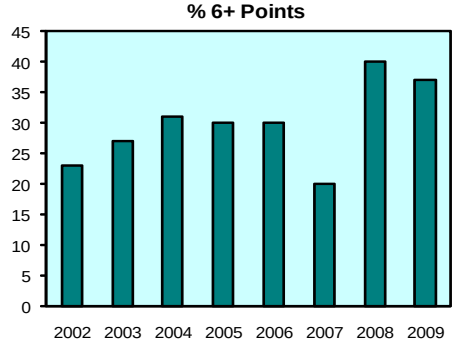


Figure 7. Elk City Zone elk status and objectives.

Selway Zone (GMUs 16A, 17, 19, 20)

Management Objectives

Objectives in Selway Zone (Figure 8) are to establish a population of 6,100 cows and 1,650 bulls, including 975 adult bulls at ratios of 25-29 bulls:100 cows and 14-18 adult bulls:100 cows.

Like Lolo Zone, management of the Selway Zone elk population and setting appropriate population objectives presents a serious quandary. Calf recruitment has declined substantially and remains at low levels. Existing information suggests that both predation and density dependence (habitat limitations) could be causing this decline. If predation is the overwhelming factor, population goals should be set higher, and there should be little or no cow harvest. However, if density dependence is significant, goals should be set at a low level, and cow harvest should be at moderate levels (5-10%). Because both factors may be contributing significantly, objectives were set at intermediate levels.

Antlerless seasons were closed in 1998 to compensate for poor recruitment and 1996-1997 winter mortality. B-tag sales were capped at 1,255 in 2000; they were reduced further to 1,067 for the 2008 season and 7 days cut from the end of the B-tag season. Also in 2008, the A-tag sales were capped at 647.

Historical Perspective

Historically, elk herds were scattered and numbers were low in this area. Few big game animals were found along Clearwater River by Lewis and Clark in the early 1800s, probably due in part to the dense, unbroken canopy of forest that covered the entire area. Wildfires burned over vast expanses near the beginning of the twentieth century, creating vast brush-fields that provided abundant forage areas for elk. Elk numbers increased following creation of these brush-fields, and elk numbers apparently peaked around 1950. Elk herds declined into the 1970s, partially due to: 1) maturation of brush-fields and declines in forage availability; 2) logging and road-building activity that increased vulnerability of elk to hunters under the then more liberal hunting seasons; and 3) loss of some major winter ranges. In response to declines in elk numbers, an either-sex hunting regime was replaced in 1976 with an antlered-only general hunting season. Elk herds then began rebuilding.

Habitat Issues

Habitat productivity varies throughout the zone from high-precipitation, forested areas along the lower reaches of Selway River to dry, steep, south-facing ponderosa pine and grassland habitat along Salmon River. Many areas along Salmon River have a good mix of successional stages due to frequent fires within the wilderness. Fire suppression within portions of the Selway River drainage has led to decreasing forage production for big game. Road densities are low, contributing to low vulnerability for big game. Noxious weeds, especially spotted knapweed, have encroached upon many low-elevation areas of elk winter range.

Due to the rugged and remote nature of this zone, human impacts have been very limited. In 1964, almost all of GMU 17 and a small portion of GMU 16A were included in the Selway-Bitterroot Wilderness. Most of GMU 19 became part of the Gospel Hump Wilderness in 1978, and in 1980, part of GMU 20 was included in the Frank Church River-of-No-Return Wilderness.

Biological Issues

Sightability survey data, collected in this zone from 1987-2001, revealed declining numbers of adult elk and declining recruitment. Declining calf recruitment was initially detected in GMUs 16A and 17 in 1995 surveys. Winter 1996-1997 was marked by severe conditions, including extremely deep snow exceeding 200% of average snow-pack in some areas. These conditions apparently caused higher-than-normal winter mortality leading to a significant decline in the GMU 16A and 17 herds. Survey data in 1999 suggested a 27% decline in adult elk over both GMUs. Composition surveys in GMU 17 during 2002 and 2003, and a sightability survey in 2004 revealed stable, low recruitment at 16 calves:100 cows, but in 2005 it declined to 11.0 calves:100 cows. In GMU 16A, the 2004 sightability survey revealed higher recruitment than in 1999.

Low calf recruitment was not observed in GMUs 19 and 20 until 1996. Survey data in 2001 suggested a significant decline in GMU 20 elk, but a significant increase in GMU 19 elk. However, fire activity during summer/fall 2000 may be responsible for significant changes in elk distribution among GMUs 19, 19A, 20, and 20A. The 2007 sightability survey showed declines in total numbers in all the Selway Zone GMUs and further declines in recruitment in GMUs 16A and 17.

Inter-specific Issues

The zone supports small, isolated white-tailed deer populations, low-density mule deer populations, and moderate-density moose populations. Moose have increased moderately over the past 20 years. Grazing by cattle is virtually nonexistent.

Predation Issues

Selway Zone mountain lion harvest has remained static over the past decade. Black bear harvest is likewise stable. In this zone, it is doubtful that harvest levels reflect population trend but rather reflect the remote, rugged nature of the habitat which, in combination with little access, precludes significant mountain lion or bear harvest. Recent trends in mountain lion and bear populations are questionable. Wolves are well established in this zone. Existing information suggests the presence of several packs. However, better information is needed.

Winter Feeding Issues

Emergency winter feeding has not been conducted recently.

Information Requirements

Aerial surveys should be conducted periodically to obtain adequate information to evaluate population performance relative to plan objectives. Better information is needed on wolf numbers, pack distribution, and impacts on elk in this zone.

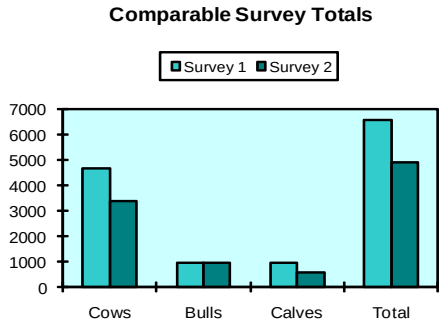
Elk
Selway Zone (GMUs 16A, 17, 19, 20)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
16A	2007	389	105	64	650 - 950	175 - 250	100 - 150
17	2007	1526	466	384	2400 - 3600	650 - 975	375 - 575
19	2007	977	237	179	1050 - 1550	300 - 400	150 - 250
20	2007	489	126	99	800 - 1200	200 - 325	125 - 200
Zone Total		**3381**	**934**	**726**	**4900 - 7300**	**1325 - 1950**	**750 - 1175**
Bulls per 100 Cows			**28**	**21**		**25-29**	**14 - 18**

Population Surveys

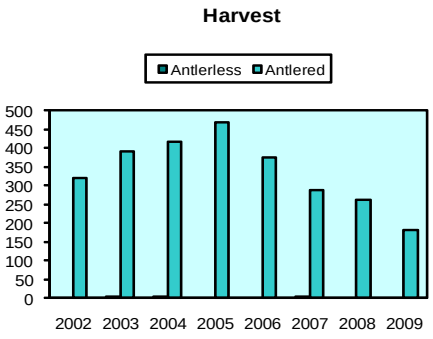
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
16A	2004	457	96	130	683	2007	389	105	63	557
17	2004	2076	486	332	2894	2007	1526	466	153	2145
19	2001	1508	240	394	2142	2007	977	237	241	1455
20	2001	596	138	120	854	2007	489	126	132	747
Comparable Surveys Total		**4637**	**960**	**976**	**6573**		**3381**	**934**	**589**	**4904**
Per 100 Cows			**21**	**21**				**28**	**17**	

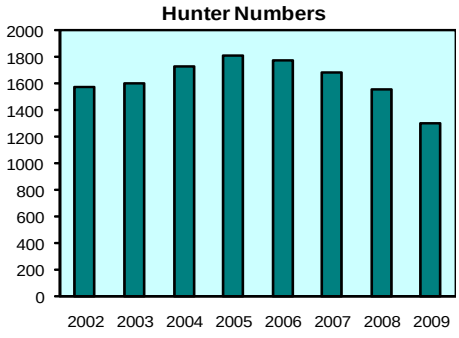


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	0	1	1	0	0	1	0	0
'A' Tag	0	0	1	0	0	0	0	0
'B' Tag	0	1	0	0	0	1	0	0
CH Tag	0	0	0	0	0	0	0	0
Antlered Harvest	319	391	418	467	374	289	263	181
'A' Tag	66	91	115	99	100	74	47	41
'B' Tag	253	300	303	366	274	215	216	140
CH Tag	0	0	0	2	0	0	0	0
Hunter Numbers	1577	1608	1735	1812	1775	1690	1555	1302
'A' Tag	518	533	578	638	631	580	548	377
'B' Tag	1059	1075	1157	1156	1144	1110	1007	925
CH Tag	0	0	0	18	0	0	0	0
% 6+ Points	30	43	34	46	42	49	48	66

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





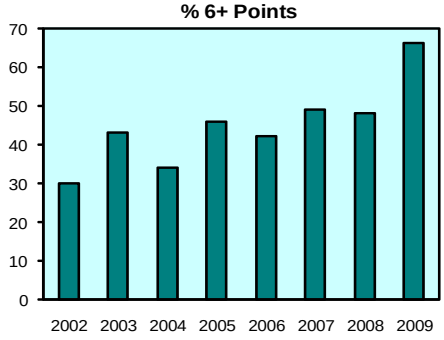


Figure 8. Selway Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	3, Nampa	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

SOUTHWEST (NAMPA) REGION

Sawtooth Zone (GMUs 33, 34, 35, 36)

Management Objectives

Objectives for Sawtooth Zone (Fig 9) include maintaining a population of ≥3,800 cows and ≥790 bulls, including ≥465 adult bulls in the wintering population in this zone. Bull:cow and adult bull:cow ratios will be managed at 18-24 bulls:100 cows and 10-14 adult bulls:100 cows, the statewide minimums. Summer elk numbers in GMU 36 were reduced to near objectives during the late 1990s. A harvest of ≥750 bulls each year is desired, but this lofty goal has been unattainable this decade and is unlikely to occur in the near future based on current status of this elk herd. At current recruitment rates, harvest of ≤250 bulls is sustainable. These objectives reflect a balance between the need for a relatively large, huntable elk population and concerns about feeding elk during winter.

Historical Perspective

Both mule deer and elk herds were over-harvested for hides and meat for mining camps in the mid-to-late 1800s. Lack of big game in the area resulted in the Idaho Legislature establishing the South Fork Game Preserve (now GMU 35) in 1909. This was the first game preserve in Idaho and remained in place until 1977. No hunting was allowed in the preserve until 1945. Deer populations increased rapidly. The elk herd increased to >1,000 by 1940 and approximately 2,000 by the early 1950s. Elk populations started rebounding in the late 1970s and peaked at a high of 7,200 elk in the early 1990s. The most recent sightability survey conducted in January 2009 revealed about 3,400 elk in the zone.

Sawtooth Zone is a popular destination for elk hunters from the Boise and Magic Valley areas. Hunter numbers declined to approximately 3,800 in 2009.

Zone tag quotas were implemented in 2009. Tag reductions will be phased in over a 3-year period, and level off at 1,500 B-tags, and 550 A-tags. These numbers equate to a 46% reduction from 2008 tag numbers.

Habitat Issues

More than 90% of this zone is managed by USFS. Access ranges from heavily roaded conditions in the Garden Valley area to the roadless Frank Church River-of-No-Return Wilderness and Sawtooth National Recreation Area. Hunters are able to select hunting conditions from wilderness to logged/roaded situations. In several areas, road densities are very high and access management programs could provide more area with less motorized access to address elk vulnerability issues. However, limiting motorized vehicle access has been met with great resistance from land management agencies, organized motorized groups, and other State agencies with differing agendas.

Habitat conditions on winter range have been an important consideration since the early 1930s. Reports by USFS and National Park Service biologists described degraded conditions of winter range in 1932. There have been numerous attempts to improve habitat on winter range, but none of them have shown significant success. Currently, most south and west-facing slopes in the Garden Valley area are largely infested by rush skeleton weed, rendering thousands of acres of important winter range of minimal value for elk and mule deer.

Elk have caused damage to several ranches (primarily cattle and small horse feeding operations) in the Garden Valley area over the last 10 years. In spring, a few elk concentrate on new forage growth on private rangeland in the Garden Valley area. However, the Department has not received a spring depredation complaint (usually for fence damage, not range) for over 4 years. Very limited winter range in the Stanley area has been impacted by non migratory elk that are being fed through the winter by locals. However, this wintering herd has been reduced from nearly 500 animals to only about 50 in 2009. In previous years, portions of local summer range were also noticeably impacted by elk. However, recent elk densities and distribution patterns do not appear to be cause for concern.

Biological Issues

Following the trend south of Salmon River, this elk population had increased dramatically until recent declines. Calf recruitment in the past has been high; however, fluctuations in calf:cow ratios over the last few years are common. Harvest data indicate that more bulls are being killed than are produced annually.

Inter-specific Issues

The Garden Valley area has been a significant wintering area for mule deer. In the early 1940s, estimated winter deer populations were from 5,000-12,000. The elk population consisted of <2,000 animals. Since 1964, mule deer numbers have not exceeded 2,000 and there has generally been approximately 5,500 elk wintering in the area, although only 3,400 elk were counted in 2009. Livestock grazing has been significantly reduced over the last 60 years.

Predation Issues

Black bear and mountain lion populations are well established in Sawtooth Zone, and prior to the wolf hunting season 2009, ≥12 wolf packs live at least part year in the Sawtooth Zone. Recent sightability surveys indicate a decline in the elk population, and calf survival remains extremely low. According to recent IDFG research, wolf predation appears to be the leading source of mortality for elk in the Sawtooth Zone, but the impact of bear and lion predation is mostly unknown. Current calf:cow ratios have fluctuated widely over the last few years and remain a concern at this time. Calf:cow ratios well below normal ranges for this elk herd were documented in 2008 and 2009, but improved in 2010 following a wolf hunting season and mild winter. Impacts of wolves on elk population dynamics appear to be a significant issue for elk management in this zone, and will continue to be monitored very closely.

Winter Feeding Issues

Sawtooth Zone has been a focal point for winter feeding since the 1930s. Severe winter mortality occurred on a regular basis starting in 1932 when 93 dead elk were found and 1,800 dead deer were buried along South Fork Payette River. Winter feeding programs for mule deer started shortly thereafter. Within a few years, elk were consuming more feed than mule deer. Now, winter feeding takes place approximately two out of every five years.

There has been no evidence of Brucellosis at any of the feed sites. The major concern is for feeding mule deer on limited deer winter range in Garden Valley. When mule deer are fed, elk quickly take over feed sites and exclude deer. This requires establishment of elk feeding sites to allow deer access to sufficient feed. Native range has the capability to support the current elk herd in nearly all situations. There is considerable public demand for feeding elk. This demand is both for public concern about the welfare of the herd and to develop an elk feeding sleigh ride as a tourist attraction.

In the past two decades, occasional winter feeding has allowed a wintering elk herd to become established in the Stanley area, where historically they could not survive severe winters. The herd grew to 500-1,000 animals and severely impacted the small amount of natural winter range available. More recently, antlerless hunting that targeted the wintering population reduced numbers to objective levels. And with the addition of wolves in the area, <100 elk remain in Stanley Basin during the winter.

Information Requirements

Migratory patterns of elk are largely unknown. Information about impacts of several large fires in the last 10 years on calving, summer, or winter ranges is needed. Potential impacts of the new mix of large predators are being studied by Department researchers, but more information is needed to determine how all the predators and prey interact in the zone. Inventory and mapping of current range of rush skeleton weed on summer and winter habitats is desirable and understanding the impacts on carrying capacity will be important.

Elk
Sawtooth Zone (GMUs 33, 34, 35, 36)

Winter Status & Objectives

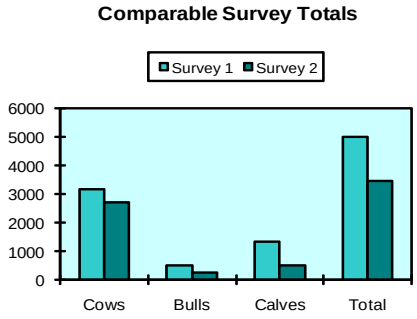
	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
33	2008	1617	166	64	2500 - 3700	500 - 800	300 - 450
34	ND				0	0	0
35	2008	1045	63	14	300 - 500	50 - 100	25 - 75
36	2008	34	22	4	250 - 350	50 - 75	30 - 50
Zone Total		**2696**	**251**	**82**	**3050 - 4550**	**600 - 975**	**355 - 575**
Bulls per 100 Cows			**9**	**3**		**18 - 24**	**10 - 14**

Note: ND = no survey data available.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
33	2006	2326	374	930	3630	2008	1617	166	314	2097
34	ND					ND				
35	2006	566	60	289	915	2008	1045	63	192	1300
36	2003	284	52	118	454	2009	34	22	3	59
Comparable Surveys Total		**3176**	**486**	**1337**	**4999**		**2696**	**251**	**509**	**3456**
Per 100 Cows			**15**	**42**				**9**	**19**	

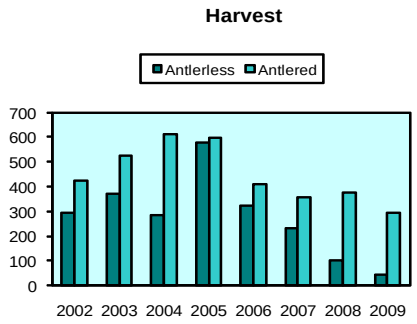
Note: ND = no survey data available.

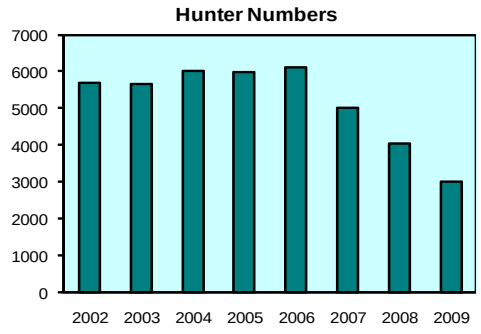


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	295	369	284	579	324	229	104	42
'A' Tag	203	274	202	469	269	159	15	7
'B' Tag	2	2	2	3	2	1	10	2
CH Tag	90	93	80	107	53	69	79	33
Antlered Harvest	424	526	613	596	410	358	376	292
'A' Tag	90	129	129	124	108	94	68	68
'B' Tag	330	387	476	468	295	260	304	219
CH Tag	4	10	8	4	7	4	4	5
Hunter Numbers	5680	5665	6024	5975	6100	4999	4037	3010
'A' Tag	2123	2136	2373	2332	2792	1990	952	683
'B' Tag	3253	3259	3379	3326	3096	2769	2550	2231
CH Tag	304	270	272	317	212	240	535	96
% 6+ Points	17	20	20	24	25	27	28	32

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





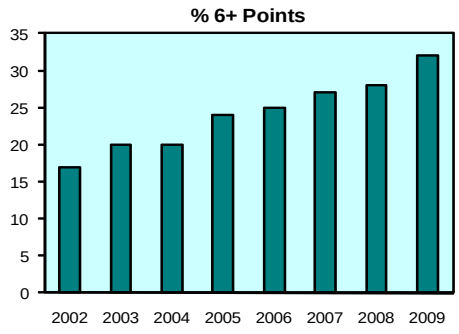


Figure 9. Sawtooth Zone elk status and objectives.

Owyhee-South Hills Zone (GMUs 38, 40, 41, 42, 46, 47, 54, 55, 57)

Management Objectives

The objective in Owyhee-South Hills Zone (Fig 10) is to provide additional hunting opportunity commensurate with the increased elk population. Harvest management will emphasize the opportunity to harvest a mature bull.

The 9 GMUs within this zone vary substantially in their potential to sustain elk populations under current biological and socio-political constraints. Management will retain enough flexibility to allow adjustments of elk numbers to address issues that may arise. In GMU 54, surveys will be initiated to provide data on which to assess population status.

Historical Perspective

During the late 1800s, elk in Owyhee-South Hills Zone were nearly eliminated because of unrestricted hunting and conflicts with the area's growing livestock industry. Elk densities remained low throughout the twentieth century but began to increase in the 1990s. Recently, ingress from the rapidly growing northern Nevada elk population and natural reproduction have both contributed to herd growth. In 2002, there was an estimated 850 elk in the zone.

Efforts by the Nevada Division of Wildlife (NDOW) to reestablish elk in the northern portion of that state have been very successful. Elk are expanding their range into suitable habitats in Nevada and Idaho that have not had resident elk for nearly a century. Translocations have been used to hasten the growth in elk numbers. Since the mid-1980s, 523 elk have been released into five areas in northern Nevada (Elko County). The overall population in 2002 was estimated to be 2,260 head with a management cap of 4,480 elk.

GMUs 38, 40, 41, and 42 - During the 1970s, a few hundred elk inhabited GMUs 40 and 42. By the mid-1990s, this elk herd had increased to about 600 head and was estimated in 2002 having approximately 450 head. Elk in GMUs 40, 41, and 42 use seasonal habitats in Nevada and Oregon. In GMUs 40 and 42, most elk move to winter ranges in Oregon and long distance interstate movements have been documented. One elk calf tagged in Baker, Oregon, was harvested as an adult near Murphy, Idaho, over 175 miles away. In GMU 41, elk that winter east of Highway 51 move south to summer ranges in Nevada, although an increasing number are staying in GMU 41 year-long. Most of these elk originated from a reintroduction program conducted by NDOW and the Rocky Mountain Elk Foundation (RMEF) in the Bruneau River drainage in Nevada. One of the released elk was harvested in GMU 46 southwest of Castleford, Idaho, over 50 miles from the Nevada release site.

GMUs 46, 47, 54, 55, and 57 - Elk numbers in these GMUs were very low throughout the 1900s. Elk sightings were considered uncommon and management emphasized providing quality mule deer hunting opportunities. In 1916, the Department reintroduced 19 elk (17 cows, two bulls) into GMU 54. Following the release, elk numbers increased only slightly. In 1950, there were approximately 60 elk wintering in GMU 54. Hunting seasons were authorized from 1963-1966 (5-15 permits) but were discontinued because of low success. In 1990, the Magic

Valley RMEF chapter proposed releasing elk into GMU 54 to establish a larger, huntable resident elk population. Since ingress of elk from Utah and Nevada was beginning to occur at that time, it was decided to allow elk numbers to increase naturally without translocations. Although reliable estimates of elk numbers are currently unavailable, the population in GMUs 46, 47, 54, 55, and 57 in 2002 was estimated between 250 and 350 head, exceeding the 1998 objective. Elk hunting was authorized in GMUs 46, 47, and 54 in 2002 with 15 either-sex archery permits, 15 any-weapon antlered permits, and 15 any-weapon antlerless permits. Similar hunting seasons were authorized for 2003 through 2005 with the antlerless hunt permit level increased from 15 to 40 permits.

Because these management GMUs have not traditionally been managed to maintain a resident elk population, the Department scoped three possible management scenarios with the public between December 2001 and February 2002. These scenarios were 1) do not allow an elk population to become established; 2) allow slow, carefully monitored growth of the elk herd to allow timely and effective responses to issues or conflicts that might arise; and 3) maximize elk population growth. Of the 230 people surveyed on the issue, 7% favored Scenario 1, 52% favored Scenario 2, and 41% favored Scenario 3. Hunters overwhelmingly favored the establishment of a resident elk population. Ranchers were split between Scenarios 1 and 2 and expressed concerns about the potential for elk to compete with livestock for forage on public and private grazing lands. Specifically, ranchers were concerned about elk use on private meadows in August and September and possible future reductions in Animal Unit Months (AUMs) on federal lands because of elk.

Habitat Issues

Owyhee-South Hills Zone is comprised of nine management GMUs, which have varying degrees of potential for supporting elk populations. Habitat quality varies considerably between GMUs, as does the potential for depredation problems.

The BLM manages the majority of elk habitat in Owyhee County. However, small parcels of private property include habitats that receive substantial elk use. The number of Landowner Appreciation Permits (LAP) has been increased in GMUs 40 and 42 to provide landowners the opportunity to harvest some of the elk that utilize their property.

In GMUs 46, 47, 54, 55, and 57, USFS and BLM manage the majority of elk habitat. Habitat conditions are currently suitable for supporting substantially higher numbers of elk. A large amount of sagebrush, bitterbrush, and mountain shrub-dominated habitats preferred by mule deer have been altered by fire, improving elk habitat suitability. However, high road densities, the open character of habitat, and depredations are important issues that will ultimately help determine elk management objectives.

Biological Issues

Because elk densities have traditionally been low in this zone, surveys have not been conducted to provide data on population dynamics. Anecdotal information suggests these populations are increasing, but accurate estimates of population size are unavailable. Increases in elk numbers

over the next 5-10 years are inevitable from natural reproduction and continued ingress of elk from Nevada. Although elk numbers in some GMUs currently exceed population objectives established in 1998, no major biological issues have been identified.

Inter-specific Issues

Owyhee-South Hills Zone has traditionally had a large population of mule deer, although deer numbers have declined during the past decade from changes in habitat and effects of drought and severe winters. The current, small elk population is not believed to have any impact on mule deer numbers.

Conflicts between elk and livestock have had a major influence on elk management in portions of Owyhee County. Concentration of elk on private land holdings in western Owyhee County has occasionally created a depredation problem. Landowners' major concerns are damage to fences and loss of private rangeland forage. Depredations that occur will be aggressively dealt with by the Department in a timely manner as specified in Idaho Code (36-1108) and Department policy. The Department will work closely with private landowners to avoid development of chronic problems. On federal lands, any resource damage attributed to elk will be jointly evaluated by the Department and managing agency.

Elk were observed on California bighorn sheep habitat in the lower East Fork Owyhee River and Deep Creek in April 2008. The extent of elk use on sheep ranges during winter is unknown but will be investigated in the future to determine if competition is occurring.

Predation Issues

Mountain lions are the primary predator on elk in this zone. Lion numbers have declined during the past 10 years. Predation is presently not a major factor limiting growth of these elk populations, nor is it anticipated to become a concern.

Winter Feeding Issues

There has been no winter-feeding of elk in this zone recently. Elk numbers will not be maintained at a higher level than can be supported by available winter habitat. Unsanctioned feeding by private individuals will be strongly discouraged. In the event that emergency feeding is necessary, elk will be reduced to resolve the problem.

Information Requirements

To effectively manage elk in this zone, population surveys will be conducted to identify seasonal habitat use areas and provide data on elk status and trend, especially in those GMUs where population increases are expected (GMUs 46, 47, and 54). Current estimates are based on reports from ranchers, biologists, and hunters, but better data will be necessary for management of anticipated higher numbers.

Fixed-wing flights will be attempted in 2009-2010 to determine efficacy of such flights to monitor elk abundance and distribution in GMUs 40 and 42.

Management Implications

GMUs 40 and 42 have gained a reputation of producing large bulls. Consequently, 6 or 7 Supertag hunters annually hunt during the early rifle hunt in the Owyhee and typically outnumber the controlled hunt permittees (5 tags). Changing the hunt opening day from 30 August to 25 September does not appear to have the desired effect of limiting participation from the Supertag hunters. Additional measures may need to be taken to maintain the quality of this excellent hunt and keep trophy quality up to the standards that hunters desire for this hunt.

Elk

Owyhee - South Hills Zone (GMUs 38, 40, 41, 42, 46, 47, 54, 55, 57)

Winter Status & Objectives

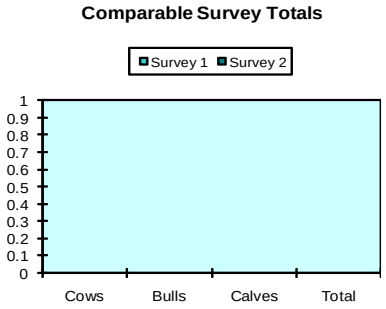
	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
38		(0)	(0)	(0)	0	0	0
40		(150)	(40)	(25)	125 - 175	20 - 40	15 - 25
41		(155)	(45)	(20)	25 - 75	5 - 15	5 - 10
42		(175)	(70)	(40)	150 - 200	25 - 50	15 - 25
46		(10)	(5)	(3)	5 - 15	1 - 10	1 - 5
47		(20)	(10)	(5)	15 - 25	1 - 10	1 - 5
54		(150)	(50)	(30)	20 - 30	1 - 10	1 - 5
55		(20)	(10)	(5)	15 - 25	1 - 10	1 - 5
57		(20)	(10)	(5)	15 - 25	1 - 10	1 - 5
Zone Total		**(700)**	**(240)**	**(133)**	**370 - 570**	**55 - 145**	**40 - 85**
Bulls per 100 Cows			**(34)**	**(19)**		**18 - 24**	**10 - 14**

Note: Estimates within parentheses are based on information other than sightability surveys.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
38	ND					ND				
40	ND					ND				
41	ND					ND				
42	ND					ND				
46	ND					ND				
47	ND					ND				
54	ND					ND				
55	ND					ND				
57	ND					ND				
Comparable Surveys Total		**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
Per 100 Cows										

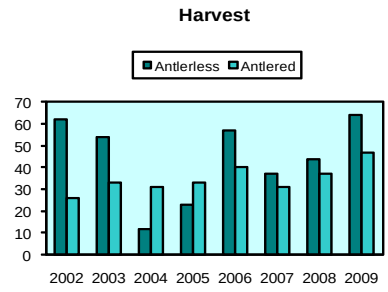
Note: ND = no survey data available.

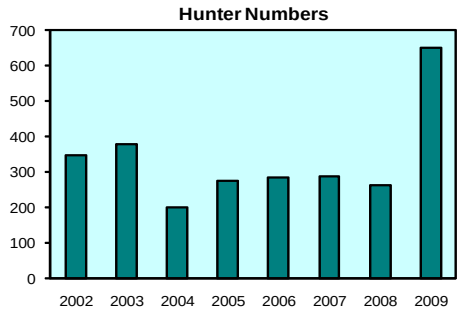


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	62	54	12	23	57	37	44	64
'A' Tag	44	2	0	0	0	0	0	14
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	18	52	12	23	57	37	44	50
Antlered Harvest	26	33	31	33	40	31	37	47
'A' Tag	0	2	0	0	0	0	0	0
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	26	31	31	33	40	31	37	47
Hunter Numbers	345	378	197	274	284	287	260	648
'A' Tag	19	24	0	0	0	0	0	375
'B' Tag	21	9	0	0	0	0	0	0
CH Tag	305	345	197	274	284	287	260	273
% 6+ Points	72	67	87	63	60	81	73	77

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





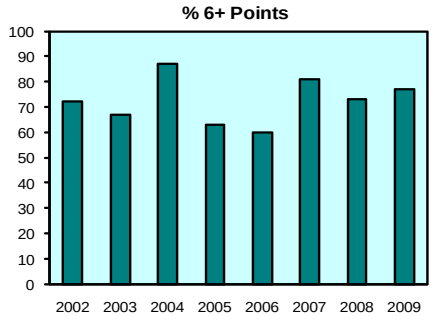


Figure 10. Owyhee-South Hills Zone elk status and objectives.

Boise River Zone (GMU 39)

Management Objectives

Objectives for Boise River Zone (Fig. 11) are to maintain a population of 4,000+ cows and 800+ bulls, including 475+ adult bulls. Management on the west side of the zone has been focused on addressing significant landowner concerns about elk depredation. Landowner permission hunts seem to have been very effective at reducing landowner complaints about elk in recent years. The bull:100 cow ratio will be maintained at the statewide minimum of 18-24, with 10-14 adult bulls:100 cows. This equates to maintaining the herd at its current level and providing for a harvest of 500+ bulls each year. Currently, this zone is meeting objectives for cows, but is below objectives for bulls and adult bulls.

Historical Perspective

Near the turn of the century, elk herds in Boise River drainage were heavily harvested for hides and meat for mining camps in the area. Sparse elk herds in Idaho were bolstered with translocated elk from the Yellowstone area in the late 1930s. Relatively liberal either-sex seasons were maintained in this zone until the early 1970s, suppressing the herds well below habitat potential. In 1975, bulls-only hunting was implemented. Since then, the herd has increased to over 5,000 head.

The interest in elk hunting in Boise River Zone increased along with growth in the elk population. The zone is one of the most popular elk GMUs in the state with approximately 4,500 hunters. This zone may be increasing in popularity due partly to the decline in the elk herd in the Sawtooth Zone, and tag quotas may need to be considered in the future.

Habitat Issues

Boise River Zone includes 2,455 square miles of excellent elk habitat. The conditions range from wilderness situations in Sawtooth National Recreation Area to the heavily roaded areas near Boise. Boise National Forest manages the majority of summer habitat occupied by elk.

There are large areas of private land on the west side of the GMU in the Horseshoe Bend area. Landowners in this area have suffered significant damage to hay crops and private rangeland, especially in spring. On the south side of the GMU, winter and spring concentrations of elk have been in conflict with livestock operations. The urban sprawl of subdivisions and five-acre homesites in the foothills around Boise has led to significant conflicts with wintering elk. The loss of winter range and conflicts with homeowners may be the most serious factor limiting elk populations in Boise River Zone.

Several large wildfires have converted shrub lands to grasslands and may have improved some wintering conditions for elk. The effects of wildfire in summer and transition ranges have generally improved conditions for elk. Additionally, rush skeletonweed has infested many of the lower southwest-facing slopes and poses a serious threat to elk winter range. Skeletonweed is

likely to have long-term implications and considering there is no known chemical containment, will reduce the carrying capacity of habitat for elk.

Biological Issues

The implementation of bulls-only hunting and a series of mild winters in the late 1980s increased elk survival in this zone. Calf recruitment is fair to good with a ratio of 28-50 calves per 100 cows. Bull harvest exceeded the potential for bull calf recruitment through much of the 1990s. For example, in 1997, 664 bulls were harvested and an estimated 550 bull calves were recruited. Seasons (Appendix A) were adjusted in 2002 to move the general bull hunt out of the period of overlap with general deer season with the hope of reducing bull harvest to below replacement potential. In 2003, only 369 bulls were harvested. However, hunters have apparently adapted to the new season timing, and bull harvest levels have increased and are near previous levels.

During winter 2003-2004, 90 elk fell through the ice while attempting to cross the Mores Creek arm of Lucky Peak Reservoir. Extensive effort was made to haze elk away from the crossing area until the ice was sufficiently thick. Additionally, 30 elk fell through ice near the mouth of Willow Creek while attempting to cross Arrowrock Reservoir in winter 2005-2006.

Inter-specific Issues

Boise River Zone is also one of the top mule deer hunting GMUs in Idaho. Except for weed expansion, other recent changes to habitat have favored elk. Winter survey flights show the separation of wintering deer and elk. Mule deer are not using some of the wintering areas they used when elk numbers were lower.

Predation Issues

Black bear and mountain lion populations are well established and apparently stable in Boise River Zone. The mountain lion population is well above levels of the 1950s. Wolves were reintroduced in Idaho in 1995. On occasion, wolves ventured into the GMU during 1995-2002. By the end of 2006, wolves from 5-7 packs occupied portions of the Boise River zone. Wolves may become a significant issue for elk management in the near future.

Winter Feeding Issues

Winter feeding sites were maintained along Middle Fork Boise River for both deer and elk through the 1950s. The only elk winter feeding that has taken place in the last 10 years has been around subdivisions to bait elk away from problem areas. Native range has the capability to support the current elk herd in nearly all situations.

Information Requirements

This large GMU contains both winter and summer range for this elk herd. The current sightability surveys provide excellent information on the status of the entire herd. Due to urban sprawl and housing development demands in the foothills near Boise, better information and

mapping of winter ranges and migration corridors are needed to help mitigate and address this issue. Noxious weed inventory and mapping on winter and summer ranges are also needed to deal with and combat the spreading concern of weed invasion and subsequent loss of critical wildlife habitat.

During sightability surveys in February 2008, over 2,700 elk were located along Interstate 84 near Mayfield. Heavy snow accumulations in the high country (and possibly pressure from wolves) pushed elk lower than what has been documented in recent years. Additional depredation complaints have also arisen with an increasing number of elk wintering on private rangelands in the area. Changes in distribution and migration patterns have been noted in GMUs 43-45, and it is documented that some of these elk are wintering in the Danskins. In March, 2009, 13 elk were captured via aerial-darting from a helicopter and radio-collared. Elk dispersed from winter range in April, and only 4 of the 13 radio-marked elk spent the summer in GMU 39. These elk were located in the Fall Creek drainage only a few miles from the GMU 43 boundary, coincidentally. Elk have migrated up to 50 miles from the capture site, and presently, 4 elk are in GMU 45, 3 elk are in GMU 44, and 2 elk are in GMU 43. This radio-collaring effort allowed us to determine where elk wintering in the Danskins spent their summer and hunting season. Information gained from this telemetry study will help to allocate appropriate tag number among GMUs and will help address depredation problems.

In the future, it would be beneficial to survey Boise River, Bennett Mountain, and Big Smoky Zones concurrently to avoid double-counting or missing elk that could annually shift winter range based on winter severity.

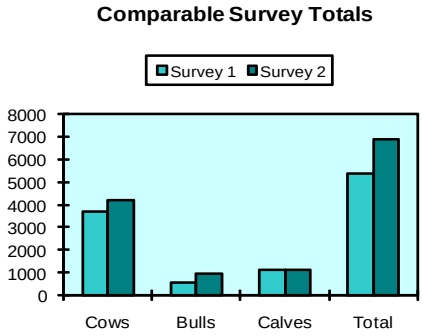
Elk
Boise River Zone (GMU 39)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
39	2008	4216	962	416	3200 - 4800	650 - 950	375 - 575
Zone Total		**4216**	**962**	**416**	**3200 - 4800**	**650 - 950**	**375 - 575**
Bulls per 100 Cows			**23**	**10**		**18 - 24**	**10 - 14**

Population Surveys

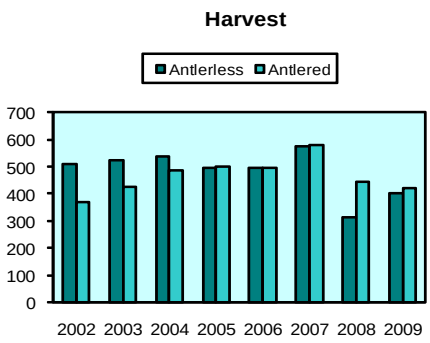
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
39	2005	3710	572	1103	5385	2008	4216	962	1106	6901
Comparable Surveys Total		**3710**	**572**	**1103**	**5385**		**4216**	**962**	**1106**	**6901**
Per 100 Cows			**15**	**30**				**23**	**26**	

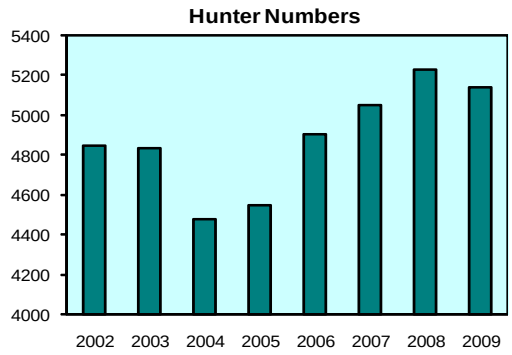


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	509	523	538	494	494	577	313	403
'A' Tag	47	54	104	105	93	104	67	86
'B' Tag	1	5	2	2	2	5	2	3
CH Tag	461	464	432	387	399	468	244	314
Antlered Harvest	369	427	484	502	497	581	446	420
'A' Tag	3	14	18	5	21	4	7	5
'B' Tag	345	402	451	496	459	560	432	393
CH Tag	21	11	15	1	17	17	7	22
Hunter Numbers	4842	4831	4479	4548	4904	5047	5228	5137
'A' Tag	550	578	598	665	814	798	914	887
'B' Tag	2769	2682	2741	2737	2895	3061	3343	3300
CH Tag	1523	1571	1140	1146	1195	1188	971	950
% 6+ Points	18	19	21	18	17	23	31	16

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





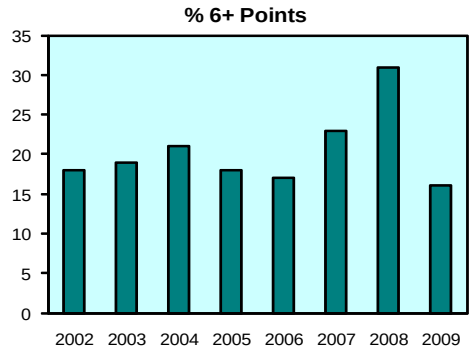


Figure 11. Boise River Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	3, McCall	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

SOUTHWEST (MCCALL) REGION

McCall Zone (GMUs 19A, 23, 24, 25)

Management Objectives

Objectives for McCall Zone (Fig. 12) are to maintain a population of ≥3,075 cow and ≥665 bull elk, including ≥375 adult bulls. This zone will be managed to produce statewide minimums for bull:cow ratio (18-24 bulls:100 cows) and adult bull:cow ratio (10-14 adult bulls:100 cows). The total population objective draws a balance among concerns about depredation damage, the desire for a reasonably large elk population, and concern about habitat-carrying capacity. Overall bull numbers and bull:cow ratios can be expected to decrease, but remain above the statewide minimums. The decrease in bulls will be due to increased hunter numbers and harvest as the zone absorbs some hunters displaced from other zones. Increases in road density will also affect elk vulnerability in the near future. Harvest mortality is not expected to increase in this zone initially; however, as management changes in other zones displace hunters, harvest rates may need to be adjusted.

Historical Perspective

Elk were abundant in McCall Zone prior to European settlement in the late 1800s. The proliferation of mining due to the gold rush in the late 1800s and early 1900s led to widespread slaughter of these animals to supply meat and hides for mining camps. As a result, elk became increasingly rare to see, and at one time were thought to be eliminated from the area. Remnant populations relegated to the more remote rugged portions of the zone survived. Translocation of elk from Yellowstone to places in McCall Zone such as New Meadows occurred in the late 1930s. Liberal either-sex hunting seasons kept population numbers of elk suppressed well into the 1970s. The implementation of bulls-only hunting in 1976 spurred an increase in elk populations in McCall Zone. This increase has continued to the present day peaks in elk populations.

Habitat Issues

Over 70% of McCall Zone is in public ownership and management. Little Salmon River and North Fork Payette River valley bottoms comprise most private ownership. Private land in this zone is predominantly agricultural or rural subdivision in nature.

Timber harvest and livestock grazing affect habitat change on public lands on the west side of McCall Zone. Wildfire or prescribed burning influence habitat alteration on lands on the east side of the zone. Several large fires have burned in this zone in the last decade. A balance exists among early, mid, and late successional habitat stages that are used by elk in summer. Winter ranges occur primarily on public ground. Federal land management agencies (USFS and BLM) have active prescribed burning programs that should maintain good winter range habitat for elk in McCall Zone. Noxious weed invasion, specifically from spotted knapweed (*Centaurea maculosa*) and yellow starthistle (*Centaurea solstitialis*), is a threat to winter ranges in Little Salmon River and Salmon River drainages of GMU 23. Elk/human conflicts occur during summer and fall months when elk enter agricultural fields in the valley bottoms to forage.

Road building and its subsequent negative effect on elk vulnerability is a habitat concern facing this elk population. Road densities are estimated at less than 0.25 miles per square mile in GMUs 19A and 25. Road densities in GMUs 23 and 24 are estimated at greater than 2.5 miles per square mile. Active timber harvest programs are anticipated to dramatically increase these road densities in the near future.

Biological Issues

The McCall Zone elk population performed well from the mid-1980s to early 1990s. Since then, calf production has declined from 30+ calves:100 cows to poor (≤20 calves:100 cows) zone-wide. Bull:cow ratios still remain at or above statewide minimum goals.

Inter-specific Issues

Elk must compete zone-wide primarily with mule deer and to a lesser extent with white-tailed deer. Extensive domestic sheep and cattle grazing occur on elk range in the western part of the zone. A small number of bighorn sheep occupy a portion of rugged country less favored by elk in the northeast portion of the zone. The competitive effect of these species on one another is largely unknown.

Predation Issues

Black bear and mountain lions are prevalent in McCall Zone. Bears are at a moderate but stable level, and mountain lions were thought to be at the highest number in recent history; however, anecdotal information indicates this species may be declining. There is no evidence as to the extent these species prey on elk in this zone. Wolves, introduced in Idaho's backcountry in 1995, are now well established in this zone. Predation by wolves may be a contributing factor to the declining calf:cow ratios.

Winter Feeding Issues

The remote location of most winter range in this zone precludes large-scale winter-feeding. In severe winters, some feeding has occurred in GMU 24. The Goldfork bait site was established in 1985 to bait elk out of winter livestock feeding operations. The Department no longer has any involvement in this operation.

Information Requirements

Carrying capacity of winter ranges is unknown. This information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest. Impacts of three potential predators on elk production is largely unknown. Information is lacking on the migration routes and patterns of elk in this zone.

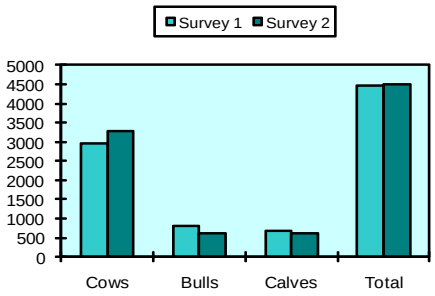
Elk
McCall Zone (GMUs 19A, 23, 24, 25)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
19A	2010	973	211	184	750 - 1150	150 - 250	100 - 150
23	2010	1937	282	176	1050 - 1550	225 - 325	125 - 175
24	ND				0	0	0
25	2010	382	123	114	700 - 1000	150 - 225	75 - 125
Zone Total		**3292**	**616**	**474**	**2450 - 3700**	**525 - 800**	**300 - 450**
Bulls per 100 Cows			**19**	**14**		**18 - 24**	**10 - 14**

Note: ND = no survey data available.

Comparable Survey Totals



Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
19A	2008	817	244	152	1213	2010	973	211	144	1328
23	2008	1820	431	457	2708	2010	1937	282	388	2607
24	ND	ND				ND				
25	2008	335	134	68	537	2010	382	123	74	579
Comparable Surveys Total		**2972**	**809**	**677**	**4458**		**3292**	**616**	**606**	**4514**
Per 100 Cows			**27**	**23**				**19**	**18**	

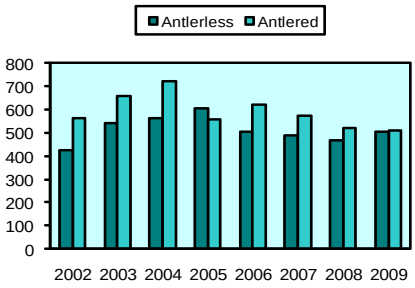
Note: ND = no survey data available.

Zone Harvest Statistics

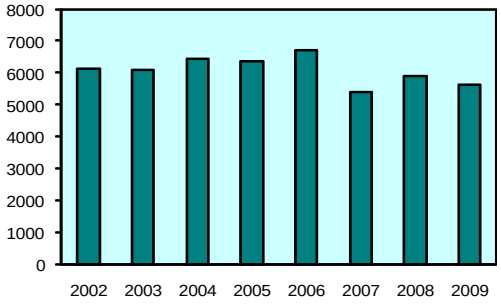
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	423	543	562	605	505	489	465	503
'A' Tag	67	115	127	300	201	177	164	219
'B' Tag	1	0	15	4	3	20	9	1
CH Tag	355	428	420	301	301	292	292	283
Antlered Harvest	562	658	721	556	620	573	518	508
'A' Tag	190	221	213	182	207	184	216	194
'B' Tag	363	436	484	371	397	376	287	299
CH Tag	9	1	24	3	16	13	15	15
Hunter Numbers	6120	6100	6458	6352	6708	5393	5888	5627
'A' Tag	1680	1616	1774	2309	2795	1880	2167	2215
'B' Tag	3094	3105	3213	3021	2848	2508	2695	2425
CH Tag	1346	1379	1471	1022	1065	1005	1026	987
% 6+ Points	27	30	39	34	35	38	28	31

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

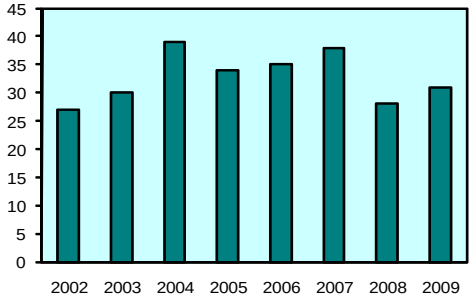


Figure 12. McCall Zone elk status and objectives.

Middle Fork Zone (GMUs 20A, 26, 27)

Management Objectives

Objectives for Middle Fork Zone (Fig 13) are to maintain GMUs 20A and 26 at current herd levels of approximately 2,100 cows and increase bull numbers from the current 270 to approximately 650. If future elk surveys do not reveal a change in productivity and bull:cow ratios, a reassessment of management objectives may be necessary. The objective in GMU 27 is to reduce cow numbers to approximately 2,400 cows and increase bulls to approximately 650. Herds will be managed to maintain 25-29 bulls:100 cows postseason, which translates to 14-18 adult bulls:100 cows.

Historical Perspective

Elk were in low abundance in Middle Fork Zone through the early part of the twentieth century. As has occurred over much of the west, elk herds expanded dramatically since the mid-1970s. Today, Middle Fork Zone winters approximately 7,500 elk. Approximately 4,000 people were hunting elk in Middle Fork Zone through 1997. Caps on hunter numbers have reduced participation to <3,000 hunters since 1998. Seasons (Appendix A) traditionally have been general hunts from mid-September to mid-late November for any bull. Much of the hunting pressure and harvest, particularly for mature bulls, has come during September. In recent years, emphasis on antlerless opportunity has been reduced. However, even with liberal antlerless elk hunting opportunities and seasons, harvest has consistently been <3% of the antlerless segment of the herd.

Habitat Issues

Habitat ultimately determines elk densities and productivity. Over past decades, fire suppression contributed to conifer encroachment on forage-producing areas, particularly winter ranges. Recent large wildfires have partially reversed this trend and enhanced elk habitat. Present management policies that allow fire a larger role in wilderness ecosystems will benefit elk habitat and elk over the long run. Already established in some areas, spread of noxious weeds such as knapweed and rush skeletonweed could ultimately have significant impacts on winter range productivity.

Biological Issues

Elk populations in GMUs 20A and 26 have performed poorly over the past 10-15 years. Calf production remains poor at 15 calves per 100 cows. At least partly as a consequence of low calf recruitment, bull:cow ratios have also been less than desirable (15 bulls:100 cows). In contrast, GMU 27 grew dramatically, increasing from 3,000 elk in 1989 to 6,300 in 1995. However, the herd has shown a declining trend since then, dropping to 4,750 elk in the January 2002 survey and 3,736 in the February 2006 survey. Calf production and bull ratios in GMU 27 fell through the same period (from 31-36 calves:100 cows to 17-24, and 25-28 bulls:100 cows to 17). Large fires in GMU 27 in 1979 and 1988 enhanced elk habitat and probably significantly contributed to the rapid expansion of that wintering elk herd. Similar large fires in GMUs 20A and 26 in the

past decade (including large-scale fires in 2000) have not appeared to help reverse the trend of declining productivity noted in the last several years.

Inter-specific Issues

Current high elk densities may be having some impact on habitat capacity for deer and on deer productivity. Elk could also have an impact in some of the less rugged grassland areas used by bighorn sheep, whose diets are similar to elk. Domestic livestock grazing is minimal in this zone.

Predation Issues

Black bear densities appear to be low to moderate. Mountain lion densities are at least moderate, perhaps high, and appear to have increased in recent years, probably partly due to increased elk densities. Coyotes are common, but not known to have much impact on elk populations. Wolves reintroduced by USFWS are well established in these GMUs. The addition of wolves will likely impact bear, mountain lion, and coyote populations. At some level, predation could benefit elk herds to the extent that it keeps elk herds below habitat carrying capacity, where they can be more productive. This is particularly true for this zone, where antlerless elk harvest by hunters has been insignificant. However, excessive levels of predation can also suppress prey populations to undesirably low levels. At this point, it is unclear what the net impact of predation will be with the new mix of large predators.

Winter Feeding Issues

Winter feeding has not occurred in these remote big game GMUs.

Information Requirements

Impacts of elk on mule deer production and survival are suspected but unknown. The most productive elk herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest. The potential impact of the new mix of large predators is unknown. Migratory patterns are largely unknown.

Elk
Middle Fork Zone (GMUs 20A, 26, 27)

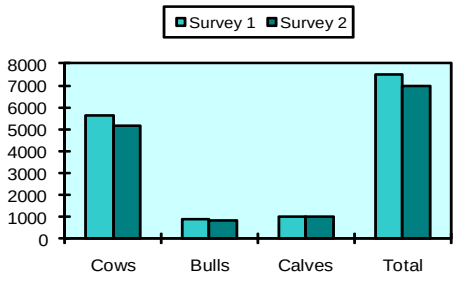
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
20A	2006	1498	219	119	1050 - 1550	250 - 400	150 - 250
26	2006	990	152	91	900 - 1300	200 - 350	150 - 200
27	2006	2649	463	240	1900 - 2900	500 - 800	300 - 450
Zone Total		**5137**	**834**	**450**	**3850 - 5750**	**950 - 1550**	**600 - 900**
Bulls per 100 Cows			**16**	**9**		**25 - 29**	**14 - 18**

Comparable Survey Totals

Population Surveys

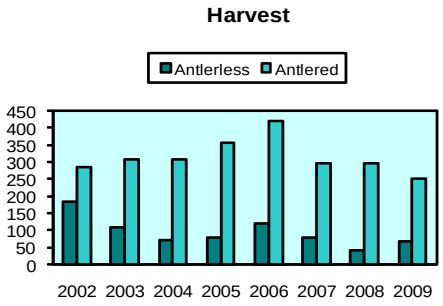
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
20A	2002	1241	192	246	1679	2006	1498	219	255	1972
26	2002	830	79	141	1050	2006	990	152	128	1270
27	2002	3542	604	606	4752	2006	2649	463	624	3736
Comparable Surveys Total		**5613**	**875**	**993**	**7481**		**5137**	**834**	**1007**	**6978**
Per 100 Cows			**16**	**18**				**16**	**20**	

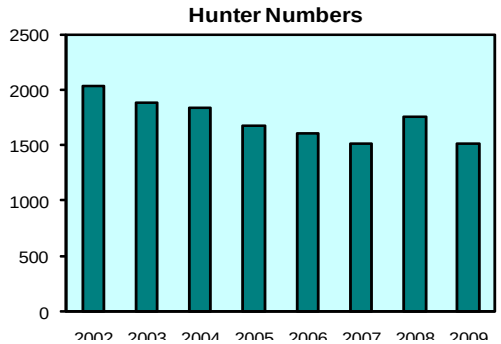


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	182	110	73	78	119	78	42	67
'A' Tag	72	71	72	78	118	77	42	67
'B' Tag	110	39	1	0	1	1	0	0
CH Tag	0	0	0	0	0	0	0	0
Antlered Harvest	283	309	307	355	419	296	295	250
'A' Tag	64	75	110	76	112	93	61	65
'B' Tag	219	234	197	279	307	203	234	185
CH Tag	0	0	0	0	0	0	0	0
Hunter Numbers	2038	1878	1841	1678	1611	1512	1752	1511
'A' Tag	667	752	782	678	647	654	706	588
'B' Tag	1371	1126	1059	990	964	858	1046	923
CH Tag	0	0	0	10	0	0	0	0
% 6+ Points	34	39	36	47	43	40	42	49

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





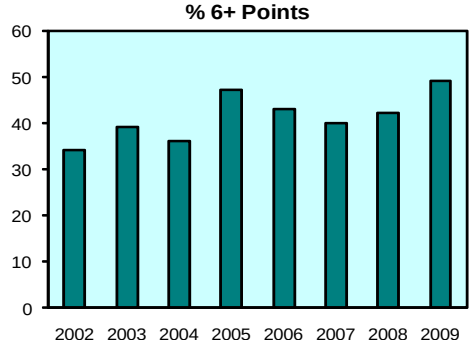


Figure 13. Middle Fork Zone elk status and objectives.

Weiser River Zone (GMUs 22, 32, 32A)

Management Objectives

The goal for Weiser River Zone (Fig 14) is to reduce cow elk population levels to 2,700+ elk. Most antlerless elk reduction will occur in GMUs 22 and 32. The total population objective draws a balance between the concern about depredation damage and the need to sustain a reasonably large elk population. In the short term, reduction of antlerless elk will result in an increase in controlled antlerless elk tags. As herds are reduced and population levels are stabilized, tag levels will decrease. This zone will be managed to produce statewide minimums for bull:cow ratio (18-24 bulls:100 cows) and adult bull:cow ratio (10-14 adult bulls:100 cows). A large decrease in harvest mortality will be necessary to increase bull numbers in this zone. A postseason population of ≥550 bulls, including ≥315 adult bulls, is the objective for this zone. A harvest of 400+ bulls can be sustained each year.

Historical Perspective

Elk were present in Weiser River Zone prior to European settlement in the mid-1800s. Native American tribes hunted elk for food in Weiser River drainage. Proliferation of mining due to the gold rush in the late 1800s and early 1900s probably led to year-round slaughter of these animals to supply meat and hides for mining camps. Subsequent intensive livestock grazing denigrated habitat in the zone. Translocation of elk from Yellowstone to places in McCall Zone on the periphery of Weiser River Zone occurred in the late 1930s to bolster sagging elk populations. Regulated livestock grazing began during the same era. Transient elk from these populations probably repopulated Weiser River Zone. Liberal either-sex hunting seasons kept population numbers of elk suppressed well into the 1970s. GMU 22 became a controlled either-sex hunt in 1971 and reopened to general bulls-only hunting in 1977. The implementation of bulls-only hunting spurred an increase in elk populations in Weiser River Zone.

The elk population in the agricultural area of the west half of GMU 32 consisted of transient elk prior to 1980. Following several hard winters, elk herds started moving into this area. Most elk were there in winter, and a few groups of elk became year-round residents. The population of elk in Weiser River Zone reached its sociological tolerance level in the early 1990s.

Habitat Issues

About 60% of GMUs 22 and 32A and 20% of GMU 32 is in public ownership and management. Private land predominates the western portion of GMU 32 and the Weiser River valley of GMUs 22 and 32A. Agricultural products are primarily dry-land grazing, grain production, and hay fields.

Timber harvest, livestock grazing, and prescribed fires are the preponderant methods affecting habitat change in this zone. Most forested habitat is in the early to mid-successional stage. Winter ranges occur primarily on public ground in GMU 22, but mostly on private ground in GMUs 32 and 32A. Noxious weed invasion, such as yellow starthistle and whitetop (*Cardaria*

draba), is a threat to winter range habitat. Andrus WMA in the southwest portion of GMU 22 is managed for elk and mule deer winter range and encompasses about 8,000 acres. Extensive road building from past timber harvest and mining activities contribute to high vulnerability of elk during hunting seasons in this zone. The inherent lack of security cover and openings created from timber harvest compound elk vulnerability. Active timber harvest programs are anticipated to increase these road densities in the near future.

Elk/human conflicts occur during summer and fall months in GMUs 22 and 32A when elk enter agricultural fields in valley bottoms to forage. Resident elk in GMU 32 have caused landowners concern about damage to fences, fall-plowed fields, row crops, and alfalfa hay fields. In the recent past, the Department has paid an average of $13,000 per year for damage in this area.

Biological Issues

Through the 1980s and 1990s, Weiser River Zone was a highly productive elk population. Calf production averaged well over 40 calves:100 cows. Burgeoning elk populations and drought summers have probably contributed to the more recent decline to fair productivity of 30 calves:100 cows. Bull:cow ratios are low (17 bulls:100 cows) due to high vulnerability of the open-canopied, heavily-roaded habitat. Even with good calf production, harvest of bulls is typically at or exceeding production.

Inter-specific Issues

Elk compete zone-wide with mule deer for habitat. Intensive domestic sheep and cattle grazing occur over most of the zone. The competitive effect of these species on one another is largely unknown.

Predation Issues

Black bear and mountain lions occur in moderate to high numbers in Weiser River Zone. There is no indication that predation is having an impact on elk calf recruitment or survival of elk in this zone. Wolves have colonized the zone but are not a significant mortality factor at this time. Coyotes are common, but are not known to have much effect on elk populations.

Winter Feeding Issues

Winter feeding takes place on an irregular basis in Weiser River Zone. Most elk feeding operations have been to bait elk away from livestock feeding operations.

Information Requirements

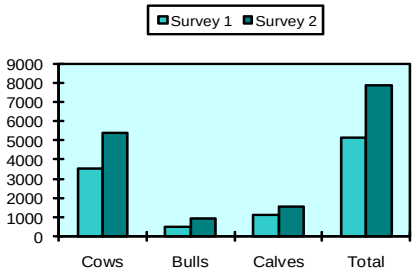
Carrying capacity of winter ranges is unknown. This information is needed to identify appropriate elk densities, which will maintain optimum productivity and harvest. Information is lacking on migration routes and patterns of elk in this zone and interaction with elk in the adjacent Brownlee Zone. A full survey of these interacting herds is needed for these zones. Knowledge of inter-specific competition is needed.

Elk
Weiser River Zone (GMUs 22, 32, 32A)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
22	2007	1666	215	66	1100 - 1700	250 - 350	125 - 200
32	2007	3000	609	221	325 - 475	50 - 100	40 - 60
32A	2007	706	85	32	700 - 1100	150 - 200	75 - 125
Zone Total		**5372**	**909**	**319**	**2125 - 3275**	**450 - 650**	**240 - 385**
Bulls per 100 Cows			**17**	**6**		**18 - 24**	**10 - 14**

Comparable Survey Totals



Population Surveys

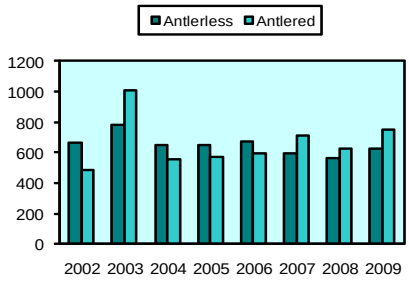
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
22	2004	2194	327	709	3230	2007	1666	215	543	2424
32	2004	1075	142	336	1553	2007	3000	609	770	4379
32A	2004	235	34	83	352	2007	706	85	258	1049
Comparable Surveys Total		**3504**	**503**	**1128**	**5135**		**5372**	**909**	**1571**	**7852**
Per 100 Cows			**14**	**32**				**17**	**29**	

Zone Harvest Statistics

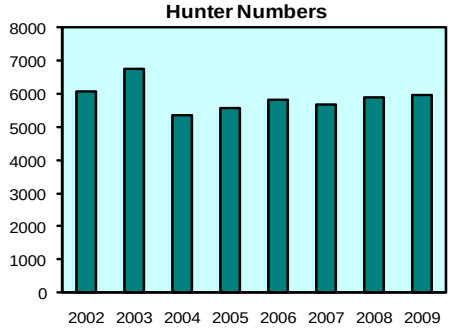
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	668	784	650	646	674	592	566	628
'A' Tag	136	235	92	104	134	79	76	116
'B' Tag	6	23	17	4	0	1	1	1
CH Tag	526	526	541	538	540	512	489	511
Antlered Harvest	482	1005	554	574	597	714	628	748
'A' Tag	90	244	81	86	140	105	128	167
'B' Tag	362	738	444	483	437	594	480	566
CH Tag	30	23	29	5	20	15	20	15
Hunter Numbers	6079	6773	5344	5559	5831	5691	5913	5960
'A' Tag	1398	1759	1158	1139	1465	1215	1245	1339
'B' Tag	2757	3244	2323	2496	2557	2683	2708	2737
CH Tag	1924	1770	1863	1924	1809	1793	1960	1884
% 6+ Points	16	18	19	22	17	26	28	27

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

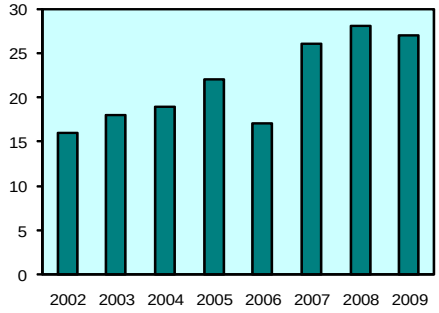


Figure 14. Weiser River Zone elk status and objectives.

Brownlee Zone (GMU 31)

Management Objectives

Objectives for Brownlee Zone (Fig 15) are to maintain a population of ≥700 cow and ≥140 bull elk, including ≥75 adult bulls. This zone will be managed to produce statewide minimums for bull:cow ratio (18-24 bulls:100 cows) and adult bull:cow ratio (10-14 adult bulls:100 cows). The total population objective draws a balance between concerns about depredation damage and the need to sustain a reasonably large elk population. A harvest of 30-50 bulls per year by tag is expected to be maintained. Intense controlled antlerless hunting and animal displacement have this population below current objectives. Controlled hunt harvest opportunity will remain similar to current levels until this population increases again. General hunting opportunity was increased with the implementation of a spike-only A-tag season in 1998. This opportunity was eliminated in 2001. General antlerless or any-bull hunting opportunity is unlikely, due to inherent vulnerability of elk in this habitat.

Historical Perspective

Elk were present in Brownlee Zone prior to European settlement in the mid-1800s. Native American tribes hunted elk for food in Weiser River drainage. As in other areas in Idaho, proliferation of mining due to the gold rush in the late 1800s and early 1900s probably led to year-round slaughter of these animals to supply meat and hides for mining camps. Subsequent heavy livestock grazing denigrated habitat in the zone. Translocation of elk from Yellowstone to places in Weiser River and McCall zones occurred in the late 1930s to bolster dwindling elk populations. Regulated livestock grazing occurred during the same era. Transient elk from these populations probably repopulated Brownlee Zone. Liberal either-sex hunting seasons kept population numbers of elk suppressed well into the late 1960s. GMU 31 was closed to elk hunting in 1968. The GMU reopened to controlled hunting in 1976. Protected by conservative bull-only tags, this elk population expanded rapidly in the late 1980s. This population reached its sociological tolerance level in the early 1990s.

Habitat Issues

About 50% of Brownlee Zone is in public ownership and management. Private land predominates southern and eastern portions of the GMU. Agricultural products are primarily dry-land grazing and hay fields. Higher elevations are timbered; lower elevations are primarily shrub-steppe or desert.

Timber harvest, livestock grazing, and prescribed fires are the preponderant methods affecting habitat change in this zone. Most forested habitat is in the early to mid-successional stage. Winter ranges occur primarily on public ground. Noxious weed invasion, such as yellow starthistle and whitetop, is a threat to winter range habitat. Andrus WMA is managed for elk and mule deer winter range and comprises about 8,000 acres in the northwest part of the zone. Elk/human conflicts occur during summer and fall months when elk enter agricultural fields in valley bottoms to forage.

Extensive road building from past timber harvest and mining activities contribute to high vulnerability of elk during hunting seasons in this zone. The inherent lack of security cover and openings created from timber harvest compound elk vulnerability. Active timber harvest programs are anticipated to increase these road densities in the near future.

Biological Issues

Since the mid-1980s, elk populations in this zone have performed well. Calf production is good, at or near 30:100 cows on average. Elk have not reached their habitat potential in this zone but have reached a threshold of tolerance among user groups concerned.

Inter-specific Issues

Elk compete zone-wide with mule deer for habitat. Most of the zone is also managed for intensive domestic sheep and cattle grazing. The competitive effect of these species on one another is largely unknown.

Predation Issues

Black bear and mountain lions occur in low to moderate numbers in Brownlee Zone. There is no evidence these species have an effect on the elk population in this zone. Coyotes are common but are not known to have much effect on elk populations.

Winter Feeding Issues

Winter feeding in Brownlee Zone is an extremely rare event. Winter feeding occurred on a limited basis in close proximity to domestic livestock feeding operations during the severe winter of 1992-1993.

Information Requirements

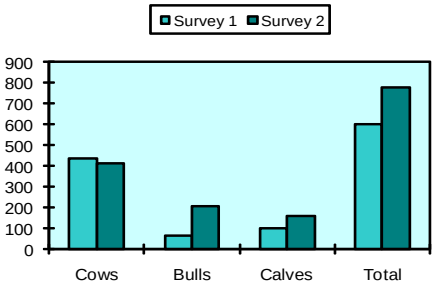
Carrying capacity of winter ranges is unknown. This information is needed to identify appropriate elk densities, which will assist with maintenance of optimum productivity and harvest. Information is lacking on migration routes and patterns of elk in this zone and interaction with elk in the adjacent Weiser River Zone. Knowledge of inter-specific competition is needed.

Elk
Brownlee Zone (GMU 31)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
31	2007	412	206	146	550 - 850	125 - 175	50 - 100
Zone Total		**412**	**206**	**146**	**550 - 850**	**125 - 175**	**50 - 100**
Bulls per 100 Cows			**50**	**35**		**18 - 24**	**10 - 14**

Comparable Survey Totals



Population Surveys

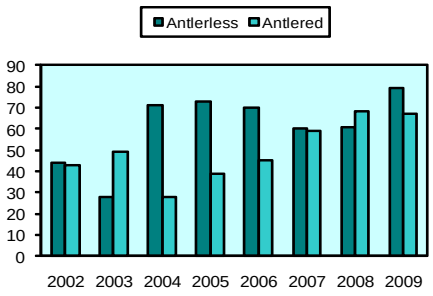
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
31	2004	433	64	102	599	2007	412	206	159	777
Comparable Surveys Total		**433**	**64**	**102**	**599**		**412**	**206**	**159**	**777**
Per 100 Cows			**15**	**24**				**50**	**39**	

Zone Harvest Statistics

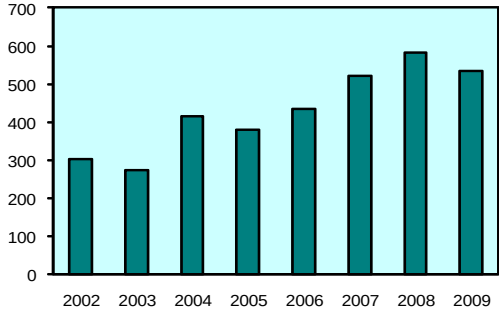
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	44	28	71	73	70	60	61	79
'A' Tag	0	1	1	5	4	5	6	17
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	44	27	70	68	66	55	55	62
Antlered Harvest	43	49	28	39	45	59	68	67
'A' Tag	10	13	13	19	20	32	39	34
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	33	36	15	20	25	27	29	33
Hunter Numbers	304	273	416	380	435	522	581	534
'A' Tag	106	113	140	141	183	259	292	315
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	198	160	276	239	252	263	289	219
% 6+ Points	32	54	57	55	51	68	60	53

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

Figure 15. Brownlee Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	4	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

MAGIC VALLEY REGION

Pioneer Zone (GMUs 36A, 49, 50)

Management Objectives

Objectives for Pioneer Zone (Fig 16) are to stabilize elk herds at slightly reduced levels (about 4,200 cows and 1,350 bulls) to maintain herd productivity and minimize potential impacts on mule deer. This zone will continue to be managed to produce very high bull:cow ratios (30-35 bulls:100 cows postseason) and many mature bulls (18-22 bulls ≥three years old:100 cows).

Historical Perspective

Elk abundance was low in Pioneer Zone through much of the twentieth century. These GMUs have been managed for decades under conservative controlled hunt strategies. As has occurred over much of the west, elk herds expanded dramatically since the mid-1970s. Today, Pioneer Zone winters approximately 6000 elk, which is similar to population levels observed in the early 1990s.

Since adoption of the dual-tag zone system in 1998 between 3,500 and 4,000 people have typically hunted in Pioneer Zone each year. The controlled bull hunts in this zone have become very desirable; rifle permits are in high demand and difficult to draw. The area's reputation for mature bulls has also made this zone a very attractive archery hunt.

Habitat Issues

Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape in Pioneer Zone. The zone is in a generally arid region where forage production can be strongly influenced by growing season precipitation. During drought years, high-elevation mesic habitats are more heavily utilized by elk while low-elevation riparian areas and wet meadows are more heavily utilized by cattle. Elk depredations on agricultural crops are common and are especially pronounced in dry years.

In some areas, elk winter in mature stands of mountain mahogany which appear relatively stagnant and unproductive. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Recent housing developments in the Big Wood River drainage in GMU 49 have severely reduced winter elk habitat. Continued development on remaining winter ranges will reduce elk carrying capacity in the GMU. Changes in land ownership in GMU 50 are making it difficult to manage depredation problems.

Biological Issues

Elk populations have been increasing steadily since the mid-1970s. Liberal antlerless permits have been offered to stabilize population growth rates, but some depredation problems continue to exist.

Recruitment measured through sightability surveys indicate most populations are reproducing at moderate to high levels (30-40 calves:100 cows). An aerial survey conducted in the Pioneer Zone during January 2008 indicated a ratio of 33 calves:100 cows based on a total of 1139 calves and 3448 cows observed. Bull:cow ratios were lower than in previous surveys at 25 bulls:100 cows (n = 845 bulls). Because of this, the spike hunt portion of the general A Tag elk hunt was eliminated throughout the zone in 2009. As a result, hunter numbers in the general hunt dropped from around 2,500 to around 1,000 in 2009.

Inter-specific Issues

Current high elk densities may be having some impact on deer populations.

When elk numbers are high, as they are currently, livestock operators often perceive elk as competing with livestock for range forage and impacting riparian areas. However, elk generally remove a minor portion of forage compared to livestock, and elk tend to use different habitats and different forage species than livestock.

Predation Issues

Black bear densities appear to be low and stable in Pioneer Zone. Mountain lion densities are low to moderate and appear to have increased in recent years, probably partly due to increased elk densities. Coyotes are common, but not known to have much impact on elk populations. Wolves reintroduced by USFWS in central Idaho in 1995 are established in Pioneer Zone. They may become a significant factor in elk distribution and population demographics and may displace other predators through competitive interactions. Reports by hunters and observations by Department personnel suggest that wolf activity may be changing behavior patterns of elk in this area.

Winter Feeding Issues

No Department-sponsored feeding facilities exist in this zone; however, artificial feeding of elk by private citizens in GMU 49 is an annual occurrence. Education measures undertaken to reduce this activity have met with some success. Efforts need to continue to give non-sanctioned feeders a better understanding of problems associated with artificially-fed elk.

Information Requirements

Impacts of elk on mule deer winter range are likely occurring and may be a limiting factor for mule deer populations. The most productive elk herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest. Additionally, if wolves become a significant factor in elk ecology, better information regarding impacts to hunting opportunity would be beneficial.

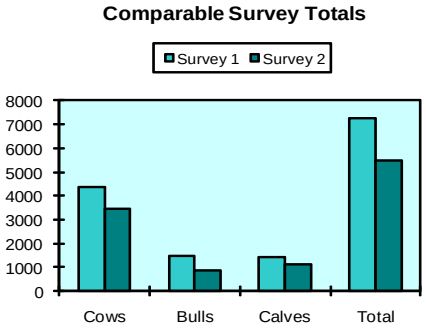
Elk
Pioneer Zone (GMUs 36A, 49, 50)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
36A	2008	1346	421	409	1050 - 1550	300 - 500	200 - 300
49	2008	1228	260	233	1350 - 2050	500 - 700	300 - 400
50	2008	874	164	248	950 - 1450	300 - 500	200 - 300
Zone Total		**3448**	**845**	**890**	**3350 - 5050**	**1100 - 1700**	**700 - 1000**
Bulls per 100 Cows			**25**	**26**		**30 - 35**	**18 - 22**

Population Surveys

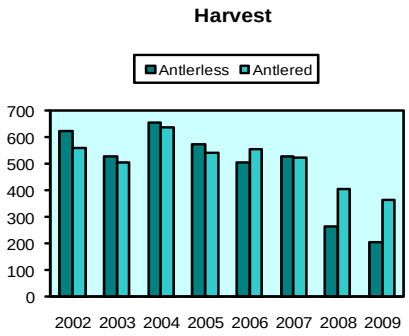
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
36A	2004	1901	652	571	3124	2008	1346	421	320	2095
49	2004	1188	422	430	2040	2008	1228	260	541	2048
50	2004	1276	379	417	2114	2008	874	164	278	1316
Comparable Surveys Total		**4365**	**1453**	**1418**	**7278**		**3448**	**845**	**1139**	**5459**
Per 100 Cows			**33**	**32**				**25**	**33**	

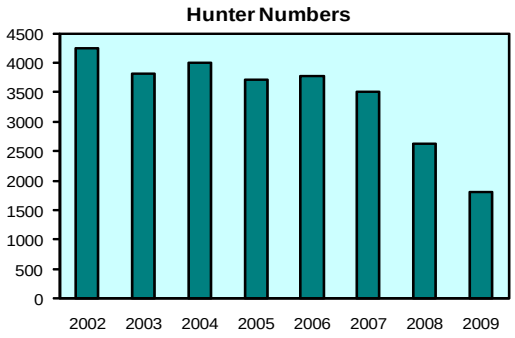


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	623	530	655	574	505	527	266	204
'A' Tag	72	59	58	32	29	44	34	37
'B' Tag	0	1	0	0	0	0	0	0
CH Tag	551	470	597	542	476	483	232	167
Antlered Harvest	560	504	636	543	557	523	407	366
'A' Tag	196	188	250	206	238	223	214	142
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	364	316	386	337	319	300	193	224
Hunter Numbers	4239	3805	3994	3701	3765	3514	2617	1800
'A' Tag	1483	1434	1465	1391	1571	1309	1401	880
'B' Tag	14	27	0	1	0	0	0	0
CH Tag	2742	2344	2529	2309	2194	2205	1216	920
% 6+ Points	43	47	56	46	30	44	30	43

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





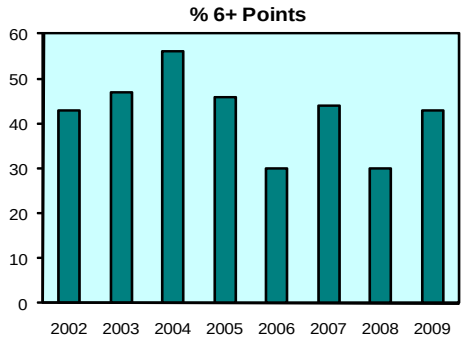


Figure 16. Pioneer Zone elk status and objectives.

Smoky Mountains Zone (GMUs 43, 44, 48)

Management Objectives

Objectives in Smoky Mountains Zone (Fig 17) are to establish a population of ≥2,300 cows and ≥700 bulls, including ≥475 adult bulls, at ratios of 30-35 bulls:100 cows and 18-22 adult bulls:100 cows. The management objective balances depredation concerns in GMU 44, feed-site capacity in GMUs 43 and 48, and the desire to provide the maximum elk population the habitat can sustain. The adult bull objective was selected to maximize bull quality in controlled hunts and provide adequate adult bulls to sustain quality elk populations. Current bull:cow ratios and adult bull:cow ratios are above objectives while the overall population is below objective.

Historical Perspective

Accounts from trappers and miners in the 1870s and 1880s indicate that elk occurred in the zone but were not as numerous as deer. Excessive use by livestock during the late 1800s and early 1900s severely damaged the Boise River and Big Wood River watersheds and reduced the area's ability to support high numbers of elk. Additionally, heavy unregulated hunting by miners, market hunters, and local settlers drastically reduced big game populations during the late 1800s. By 1905, it was difficult to find camp meat. Elk had been all but eliminated and deer observations were rare in the Boise River Basin and Big Wood River drainage.

In 1915, a reintroduction effort began with a release of elk from Yellowstone National Park into the Boise River drainage just above Arrowrock Dam. In 1930, the elk population in the Soldier Mountain area was estimated at 135 head. Reintroduction efforts continued in 1935 and 1936 with elk releases near Ketchum in the Big Wood River drainage. Elk populations increased steadily during the 1950s and 1960s, and controlled hunts were used to manage the harvest. Supplemental winter feeding of elk by the Department and private interests has occurred in this zone since the initial releases.

Habitat Issues

Primary spring, summer, and fall habitats throughout the zone are managed by USFS, and winter ranges are a mixture of USFS, BLM, and private lands. Suitable winter ranges in GMUs 43 and 44 are very limited. Because of this, nearly-annual supplemental feeding must take place to maintain populations at or near current levels. In GMU 43, the South Fork Boise River corridor is critical for elk that winter away from established feed sites. In GMU 44, much of the habitat elk might use during the winter is on private land, and depredations are a concern. In GMU 48, most of the best winter habitat exists on private land in drainage bottoms near residential areas. A substantial loss of winter range to residential development has occurred in GMU 48, and continued loss of winter range is a serious concern, as the human population in that GMU continues to grow.

Habitat productivity has probably improved on federal lands in recent years because of reductions in domestic sheep grazing and re-growth of shrubs in areas with timber harvest. However, suppression of fire throughout much of this century has likely resulted in declining elk

habitat quality. Many aspen communities are decadent and/or are being replaced by conifer species and would benefit from fire. Additionally, in some areas, ponderosa pine-dominated communities would benefit from fire to reduce high densities of Douglas fir in the stands. Spotted knapweed has become established in the zone and threatens habitat productivity and diversity in several localized areas.

For many years, depredations have been very limited in most of this zone, with the only real problems arising near urban areas where wintering elk find exposed horse hay or ornamental shrubs. During winter 2007-2008, at least 4 landowners called to report depredation complaints in GMUs 44 and 48. The presence of several radio-collared elk on the Camas Prairie suggests that some elk are moving away from the feed sites along the South Fork Boise River and onto what was likely historic winter habitat in GMU 44.

In GMU 43, high road densities from past timber harvest activities have increased elk vulnerability during hunting seasons (Appendix A). Seasonal road closures have been instituted by USFS to increase elk escapement and mitigate for high road densities. However, over-snow recreational pursuits (snowmobiling, backcountry skiing, summer home access) potentially pose a serious threat to wintering elk and could hamper the Department's ability to achieve population goals.

Biological Issues

Elk populations have been increasing steadily since their reintroduction in the 1930s. Mild winters in the 1980s and early 1990s enhanced calf survival and increased population growth rates. Liberal antlerless harvest throughout that period has began to stabilize population growth.

Recently, data from sightability surveys and herd composition surveys at feed sites indicate that most populations are reproducing at sustainable levels (≥30 calves:100 cows). An aerial survey conducted in January 2009 indicated that overall elk numbers were below objective for the Smoky Zone. Because of this, and because the 2009 elimination of general any-weapon opportunity in the Pioneer Zone may have displaced hunters to the Smoky Zone, the Smoky Zone was capped at 726 tags for the 2010 hunting season.

The January 2009 survey resulted in estimates of 42 calves:100 cows, and 32 bulls:100 cows in the Smoky Zone, based on totals of 1560 cows,655 calves, and 502 bulls observed. Calf:cow and bull:cow ratios vary somewhat by GMU within the Smoky Zone, with bull: cow ratios as low as 26 bulls: 100 cows in GMU 48, but at 34 bulls: 100 cows in GMU 43. Calf ratios range from 39 calves:100 cows in GMU 43 to 44 calves: 100 cows in GMU 48. Previous years' data suggest even wider variation in calf:cow ratios among Smoky Zone GMUs. No determination has been made as to the cause of the differences in calf production within different parts of the zone.

Inter-specific Issues

The zone supports a substantial population of mule deer, numerous moose, and, at higher elevations, mountain goats. The relationship between deer and elk is presently unclear but is not

believed to be a significant issue in this zone. Elk remain within the zone during winter whereas most deer migrate to winter ranges in GMUs 45 and 52, minimizing potential competition during critical winter months.

Cattle and domestic sheep have imposed the most significant forage demand in this zone since the 1870s. Excessive use by cattle and domestic sheep severely damaged watersheds in the late 1800s and early 1900s. Today, livestock use has been reduced to roughly 15% of historic use and competitive concerns remain but tend to be more localized.

Predation Issues

Black bear populations have remained relatively static over time. Mountain lion numbers probably increased in the late 1980s and early 1990s following increases in mule deer and elk populations and have likely declined some since then. Wolves have recently become established in the zone and are a factor in elk population dynamics. In addition, wolf activity may be affecting elk activity patterns and seasonal use areas, particularly during the winter months. Radio-telemetry data has shown that many elk that traditionally wintered in the South Fork Boise River drainage have begun moving to lower-elevation winter habitat in GMU 44. It is suspected that wolves may be a factor in prompting these new seasonal movement patterns. The effect of wolves on black bears and mountain lions through competitive interactions is still poorly understood.

Winter Feeding Issues

Winter feeding of elk by private entities, particularly in the Big Wood River Valley (GMU 48), is a contentious issue. During the 1990s and early 2000s, it was not unusual for 700-1,000 elk to be fed at up to 11 different sites in GMUs 44 and 48. In recent years the Department has worked closely with private feeders to eliminate unneeded feed sites. During the 2009-2010 winter, approximately 325 elk were fed at 2 private feed sites.

There are 4 Department-sanctioned feed sites located in GMU 43. Feeding occurs at all or some of the sites in 3 of every 4 years. Without supplemental winter feeding, elk numbers in GMU 43 would probably be less than half of current numbers. Currently, the elk population in GMU 43 is managed at a level that is compatible with the capacity of the 4 feed facilities (approximately 1,100 head). Elk radio-collared at GMU 43 feed sites during winter have recently been located in GMUs 44 and 45 during winter months, suggesting that these elk may be beginning to migrate out of the South Fork Boise River drainage during winter. Furthermore, the average number of elk using the four South Fork Boise feed sites has declined substantially in recent years, from averages of 750-1000 elk during the 1990s to an average of about 250 elk between 2005-2009. If the numbers of elk using GMU 43 feedsites continue to wane, it may become both biologically and financially prudent to explore the feasibility of discontinuing some GMU 43 feeding operations.

GMU 48 has one Department-sanctioned feed site in the Warm Springs Creek drainage. It is not necessary to sustain the population but was set up to shortstop elk before they enter developed winter ranges in the town of Ketchum. The private feeding operations in the valley are a

symptom of growth and the changing demographics of the populace of the Ketchum-Sun Valley area. Most private feeding operations take place regardless of whether feeding is warranted. Department personnel continue to work with private feeders to discourage feeding activity and explain the pitfalls of feeding in or near a suburban area. As a result of such discussions, Department staff worked with the owner of one private feed site near Ketchum to trap and transplant 108 elk during January and February 2006. These elk were moved from Ketchum to 1 of 3 release sites: most calves were moved to the Department's Bullwhacker feed site up Warm Springs Creek, one group of 19 cows was moved to Bennett Mountain (GMU 45), and the remaining cows and calves were relocated to the Big Desert (GMU 52A). Only a few elk were left at the private feed site near Ketchum; the site will be monitored over the next several winters to assess whether elk continue to return or remain dispersed.

Information Requirements

More detailed information is needed on 1) effects of concentrating elk for feeding purposes (i.e., are diseases present in fed elk and what is the relationship between feeding and low observed calf ratios), 2) movement patterns of fed elk to improve harvest management, 3) more frequent sightability surveys to monitor population trends and age and sex ratios, and 4) potential causes for observed changes in winter movements and habitat use in the South Fork Boise River drainage and GMU 44. In addition to improving harvest management, population surveys and movement studies are important to our discussions with local political factions regarding development in and around critical elk wintering areas.

Elk
Smoky Mountains Zone (GMUs 43, 44, 48)

Winter Status & Objectives

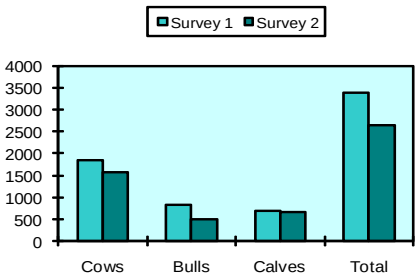
	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
43	2009	547	187	137	1350 - 2000	425 - 650	275 - 400
44	2009	57	65	57	150 - 250	50 - 75	30 - 50
48	2009	956	250	129	375 - 550	125 - 175	75 - 125
Zone Total		**1560**	**502**	**323**	**1875 - 2800**	**600 - 900**	**380 - 575**
Bulls per 100 Cows			**32**	**21**		**30 - 35**	**18 - 22**

Note: 2004 - Unit 48 ground survey: 40 calves:100 cows (n=626 elk observed)

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
43	2002	867	420	241	1528	2009	547	187	214	948
44	2002	250	138	94	482	2009	57	65	23	145
48	2006	732	267	368	1367	2009	956	250	418	1537
Comparable Surveys Total		**1849**	**825**	**703**	**3377**		**1560**	**502**	**655**	**2630**
Per 100 Cows			**45**	**38**				**32**	**42**	

Comparable Survey Totals

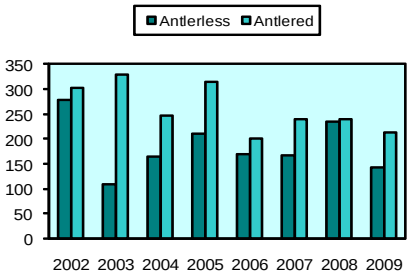


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	278	110	166	212	169	167	234	144
'A' Tag	5	9	8	6	9	4	8	12
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	273	101	158	206	160	163	226	132
Antlered Harvest	303	329	248	315	201	239	241	213
'A' Tag	72	68	78	118	78	70	77	93
'B' Tag	0	3	0	0	0	0	0	0
CH Tag	231	258	170	197	123	169	164	120
Hunter Numbers	2791	2590	2388	2240	1795	1670	1974	1574
'A' Tag	773	743	885	796	812	587	749	848
'B' Tag	20	12	0	0	0	0	0	0
CH Tag	1998	1835	1503	1444	983	1083	1225	726
% 6+ Points	44	42	46	33	36	44	41	52

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers

% 6+ Points

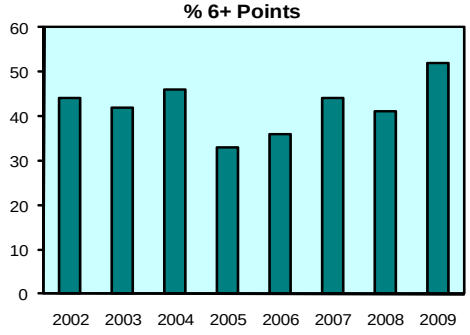


Figure 17. Smoky Mountains Zone elk status and objectives.

Bennett Hills Zone (GMUs 45, 52)

Management Objectives

Objectives for Bennett Hills Zone (Fig 18) are to maintain a population of ≥350 cows and ≥155 bulls, including ≥55 adult bulls, at ratios of 18-24 bulls:100 cows and 10-14 adult bulls:100 cows.

Historical Perspective

Elk were extirpated from Bennett Hills Zone by the early 1900s as a result of unregulated hunting and habitat depletion from excessive livestock use. The re-colonization of Bennett Hills Zone by elk was slow, following the reintroduction of elk into south-central Idaho (Arrowrock Reservoir in 1915, Warm Springs Creek west of Ketchum in 1935 and 1936). During the late 1940s, elk numbered less than 50 head in GMU 45 and less than 15 head in GMU 52. The zone is currently believed to winter 700-1000 elk.

In GMU 45, general five-day either-sex elk hunts were held in the western portion of the GMU from 1943-1953. There were no elk seasons in GMU 45 from 1954-1963 and 1971-1978. GMU 52 was closed to all elk hunting from 1943-1978.

In 1965, 36 elk (9 bulls, 19 cows, 9 calves) trapped in GMU 48 were released in GMU 52 about one mile south of Magic Reservoir. By the late 1970s, the population had increased to an estimated 235 head and depredation problems occurred on wheat and alfalfa fields from approximately 120 elk that summered in the Johnson Hill area. Early controlled firearms hunts and archery seasons were implemented in 1979 to reduce depredation concerns. In 1980, the management objective was to reduce depredations and increase the elk population to 300 head. The 1986-1990 Elk Management Plan established a goal of about 400 elk for GMUs 45 and 52 combined. Since depredation problems were minimal and the elk population relatively small, aerial surveys were not conducted in Bennett Hills Zone until 1999 to monitor the elk population.

Habitat Issues

Bennett Hills Zone encompasses roughly 3,700 square miles; 8% is managed by USFS, 67% is managed by BLM, 5% is administered by IDL, and 27% is private land. Most of GMU 52 and the southern portion of GMU 45 are primarily arid semi-desert dominated by sagebrush-grass. Mount Bennett Hills in the northern portion of GMU 45 is a low range of mountains or high plateau consisting of sagebrush-grass and mixed mountain shrub communities with small pockets of aspen and Douglas fir on northern exposures and more mesic sites. The Camas Prairie on the north side of the zone is primarily private land used for pasturing livestock and growing grass and alfalfa hay.

Livestock grazing is the primary land use in the zone. There are competitive concerns during drought years when forage utilization by cattle is higher.

Private interests own or control access to important summer and fall habitats. This has been a subject of much concern by hunters unable to gain access to areas they wish to hunt. Several elk ranching operations have recently been established in GMU 45 bringing concerns of potential loss of genetic integrity of wild elk and possible transmission of disease to wild populations.

Biological Issues

Elk populations in this zone have increased over the last 30 years as a result of reintroduction, conservative harvest management, and improved livestock grazing practices. The 1999 sightability survey indicated populations are reproducing at sustainable levels (24 calves:100 cows) and bull ratios are considerably higher than required to maintain the population (58 bulls:100 cows). In 2008, 927 elk were observed during a February mule deer survey. This number was much higher than expected, and prompted an aerial survey for elk in 2010. During the 2010 survey, 567 elk were observed, with 42 calves and 28 bulls per 100 cows (n = 333 cows 140 calves and 94 bulls). These survey numbers suggest that elk numbers in the Bennetts fluctuate considerably during the winter. Some Smoky Zone elk may move to the Mayfield area (Unit 39) during the winter, and winter conditions undoubtedly affect elk distribution in GMUs 45 and 39. However, because GMU 45 is a significant mule deer winter range, continued monitoring of elk numbers is warranted, as high elk densities may begin to pose competitive conflicts with deer in some parts of the zone.

During January 2006, 19 cow elk were trapped from the Ketchum area and released on Bennett Mountain. This relatively small group of elk is unlikely to have significant impacts on the elk population in the Bennett Hills Zone. The Ketchum trap site will be monitored in upcoming years to evaluate whether elk return to Ketchum or winter near their release site.

Inter-specific Issues

This zone winters nearly all of the mule deer from GMUs 43, 44, 45, 48, and 52, and for this reason, mule deer will be given management priority over elk whenever conflicts are identified. Although, competitive concerns are currently minimal; the elk population has grown rapidly in recent years, and has begun to overlap some mule deer winter habitat. A small population of pronghorn also occurs in the zone, but there is little overlap of habitat.

Livestock grazing, primarily cattle, occurs throughout federal and state-administered lands and on most of the private land that is not farmed. Specific conflicts between livestock grazing and elk have not been identified.

Predation Issues

Two or 3 mountain lions and <10 black bears are taken by hunters in this zone annually, all in GMU 45. There has been no noticeable change in bear or mountain lion numbers in recent years.

Winter Feeding Issues

Winter feeding has not been conducted in this zone recently and is not an issue.

Information Requirements

Additional aerial surveys for elk are needed to better monitor current objectives, population status, and winter distribution in relation to mule deer.

Elk
Bennett Hills Zone (GMUs 45, 52)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
45	2010	420	120	39	225 - 325	50 - 75	35 - 50
52		(75)	(25)	(15)	50 - 100	10 - 20	5 - 10
Zone Total		**(495)**	**(145)**	**(54)**	**275 - 425**	**60 - 95**	**40 - 60**
Bulls per 100 Cows			**(29)**	**(11)**		**18 - 24**	**10 - 14**

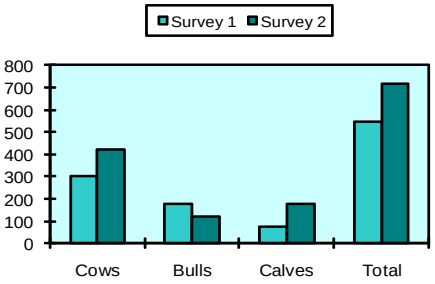
Note : Estimates within parentheses are based on information other than sightability surveys.

Comparable Survey Totals

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
45	1999	300	175	73	548	2010	420	120	177	717
52	ND					ND				
Comparable Surveys Total		**300**	**175**	**73**	**548**		**420**	**120**	**177**	**717**
Per 100 Cows			**58**	**24**				**29**	**42**	

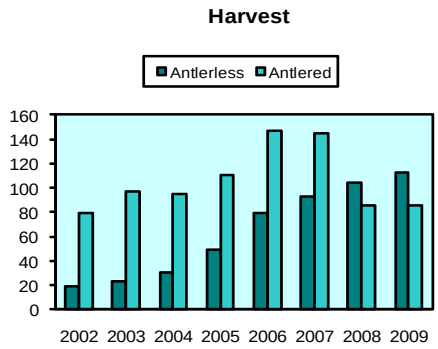
Note: ND = no survey data available.

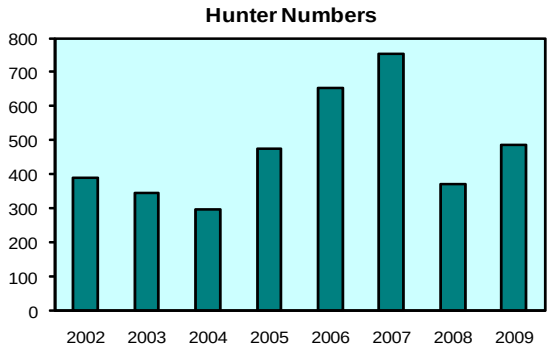


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	19	23	30	49	79	93	104	113
'A' Tag	1	1	1	1	0	3	33	30
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	18	22	29	48	79	90	71	83
Antlered Harvest	79	97	95	110	147	145	86	86
'A' Tag	26	30	32	21	43	47	1	0
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	53	67	63	89	104	98	85	86
Hunter Numbers	390	346	299	474	655	755	370	487
'A' Tag	225	223	133	202	307	370	99	128
'B' Tag	5	0	0	0	0	0	0	0
CH Tag	160	123	166	272	348	385	271	359
% 6+ Points	43	55	49	34	24	36	40	59

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





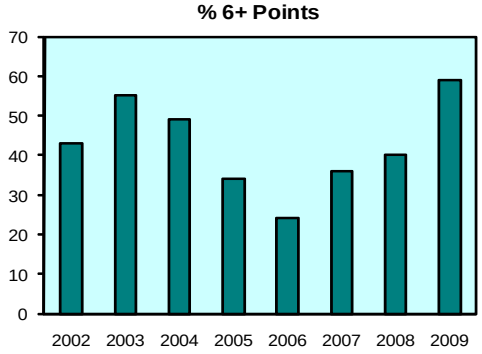


Figure 18. Bennett Hills Zone elk status and objectives.

Big Desert Zone (GMUs 52A, 68)

Management Objectives

Objectives for Big Desert Zone (Fig 19) are to maintain a wintering elk population of 120-200 cows and 25-45 bulls, including 15-25 adult bulls. Although no population survey estimate exists for this zone, field reports indicate that current total numbers may exceed objectives.

Historical Perspective

The elk population in Big Desert Zone has increased substantially from early historical records. Accounts of trappers through this area in the mid-1800s suggest that, although elk were common, buffalo, bighorn sheep, and pronghorn were far more numerous. Unregulated harvest of the late 1800s and early 1900s likely reduced populations to relatively low levels.

Elk hunting in Big Desert Zone began in 1983 with 30 either-sex permits for GMU 63. Since that time, elk numbers and permit numbers have increased substantially. In 2001, Big Desert Zone was reduced from six GMUs (52A, 53, 63, 63A, 68, 68A) to two GMUs (52A, 68). Between 2001 and 2007, all elk tags in the Big Desert Zone were issued on a controlled hunt basis. Beginning in 2008, an archery-only general elk hunt was authorized in this zone.

Habitat Issues

Big Desert Zone represents some of the least productive habitat found in eastern Idaho. Comprised of mostly dry desert shrub habitat types, Big Desert Zone provides limited summer range for elk.

The BLM administers the majority of public ground (67% of total area) in Big Desert Zone. Private ground makes up 24%, state endowment lands 4%, and other federal agencies (National Park Service, USFWS, Atomic Energy Commission) make up about 5%.

A number of water guzzlers have been developed primarily for nongame, upland game, and pronghorn within Big Desert Zone. Although the impacts to other wildlife are unknown, elk have permanently destroyed some guzzlers and can prematurely dry up storage tanks.

Wildfires continue to play a big role with habitat throughout Big Desert Zone. In many cases, fire has replaced sagebrush stands with perennial grasses, theoretically improving habitat conditions for elk.

Biological Issues

With the exception of a few Idaho National Laboratory (INL) aerial surveys generally covering the northeast corner of the zone, population surveys have not been conducted in Big Desert Zone. Therefore, estimates for recruitment and total numbers are based on other data.

During January 2006, 62 elk (51 cows, 10 calves, one spike bull) were trapped from the Ketchum area and released north of Minidoka near Bear Trap Cave on the border between GMUs 52A and 68. The Ketchum trap site will be monitored in upcoming years to evaluate whether elk return to Ketchum or winter near their release site.

Inter-specific Issues

Livestock, mule deer, and pronghorn are the primary ungulates sharing range with elk in Big Desert Zone. We are unaware of significant concerns regarding elk competition for forage with livestock. It is unknown what, if any, impacts an increasing elk population may have on pronghorn or mule deer.

Predation Issues

Coyotes are the predominant large predators within this zone. However, they are not believed to be a significant factor in elk population dynamics.

Winter Feeding Issues

Emergency supplemental feeding of elk has not been conducted recently. The relatively inaccessible nature of this zone in winter and generally limited snowfall preclude many concerns for winter feeding.

Information Requirements

The greatest data need for Big Desert Zone is reliable population data that provide estimates of abundance, composition, and recruitment, and distribution data that would assist in developing effective harvest and depredation control strategies.

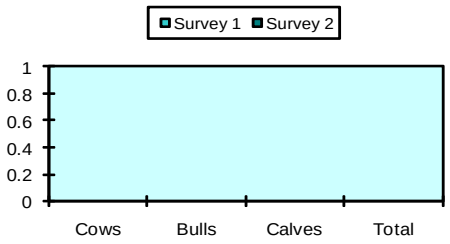
Elk
Big Desert Zone (GMUs 52A, 68)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
52A		(60)	(20)	(15)	45 - 75	10 - 20	5 - 10
68		(100)	(20)	(20)	75 - 125	15 - 25	10 - 15
Zone Total		**(160)**	**(40)**	**(35)**	**120 - 200**	**25 - 45**	**15 - 25**
Bulls per 100 Cows			**(43)**	**(24)**		**18 - 24**	**10 - 14**

Note : Estimates within parentheses are based on information other than sightability surveys.

Comparable Survey Totals



Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
52A	ND					ND				
68	ND					ND				
Comparable Surveys Total		**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
Per 100 Cows										

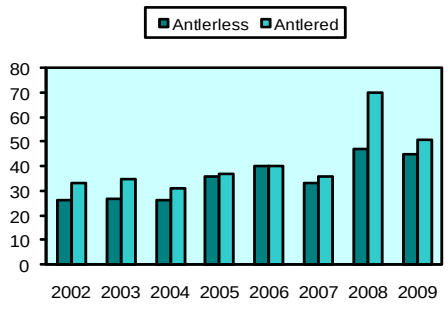
Note: ND = no survey data available.

Zone Harvest Statistics

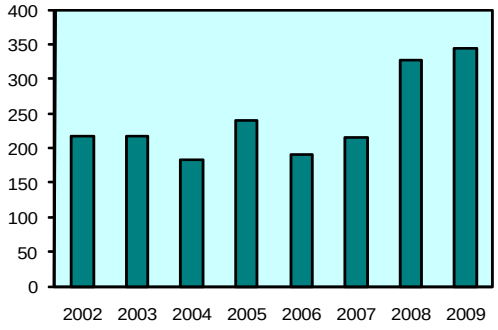
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	26	27	26	36	40	33	47	45
'A' Tag	0	0	0	0	0	0	2	0
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	26	27	26	36	40	33	45	45
Antlered Harvest	33	35	31	37	40	36	70	51
'A' Tag	0	2	0	0	0	0	22	12
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	33	33	31	37	40	36	48	39
Hunter Numbers	217	218	183	240	191	216	327	345
'A' Tag	8	9	0	0	0	0	93	96
'B' Tag	2	3	0	0	0	0	0	0
CH Tag	207	206	183	240	191	216	234	249
% 6+ Points	45	46	57	59	60	64	55	46

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

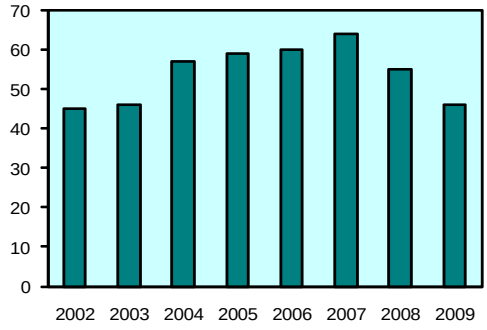


Figure 19. Big Desert Zone elk status and objectives.

Snake River Zone (GMUs 53, 63, 63A, 68A)

Management Objectives

Objectives for Snake River Zone (Fig 20) are to maintain a wintering elk population of 25-35 cows and 5-10 bulls, including 1-5 adult bulls. Although no population survey estimate exists for this zone, field reports combined with INL surveys indicate that current numbers exceed objectives. The low population objective is necessary to alleviate significant depredation concerns in GMUs 53 and 63. Aggressive harvest rates will be necessary to achieve population objectives.

Historical Perspective

The elk population in Snake River Zone has increased substantially from early historical records. Accounts of trappers through this area in the mid-1800s suggest that, although elk were common, buffalo, bighorn sheep, and pronghorn were far more numerous. It is likely that the unregulated harvest of the late 1800s and early 1900s reduced populations to relatively low levels.

Snake River Zone (GMUs 53, 63, 63A, 68A) was contained within Big Desert Zone (GMUs 52A, 68) from the beginning of the zone system in 1998 through 2000.

Elk hunting in Snake River Zone began in 1983 with 30 either-sex permits for GMU 63. Since that time, elk numbers and harvest opportunity have increased substantially.

Habitat Issues

Snake River Zone represents some of the least suitable habitat found in eastern and southern Idaho. Comprised of mostly agriculture and dry desert shrub habitat types, Snake River Zone provides limited summer range for elk.

The BLM administers the majority of public ground in Snake River Zone. Other primary ownership includes private and INL ground. The INL, which is largely non-hunted, provides daytime refuge for several hundred elk that forage on private cropland at night. Efforts will continue to improve management options available to the Department for elk on INL.

A number of water guzzlers have been developed primarily for nongame, upland game, and pronghorn within Snake River Zone. Although the impacts to other wildlife are unknown, elk have permanently destroyed some guzzlers and can prematurely dry up storage tanks.

Wildfires continue to alter large swaths of habitat throughout Snake River Zone. In many cases, fire has replaced sagebrush stands with perennial grasses, theoretically improving habitat conditions for elk.

Biological Issues

With the exception of a few INL aerial surveys, population surveys have not been conducted in Snake River Zone. Therefore, estimates for recruitment and total numbers are based on other data. Given the relatively rapid increase in elk observed over the last 15 years, it is believed that production is high. To achieve population objectives for Snake River Zone, with what are probably high recruitment rates, will require high harvest rates.

Inter-specific Issues

Livestock, mule deer, and pronghorn are the primary ungulates sharing the range with elk in Snake River Zone. We are unaware of significant concerns regarding elk competition for forage with livestock. It is unknown what, if any, impacts an increasing elk population may have on pronghorn or mule deer.

Predation Issues

Coyotes are the predominant large predator within this zone. However, they are not believed to be a significant factor in elk population dynamics.

Winter Feeding Issues

Emergency supplemental feeding of elk has not been conducted recently. The relatively inaccessible nature of this zone in winter and generally limited snowfall preclude many concerns for winter feeding.

Information Requirements

The greatest data need for Snake River Zone is reliable population data that provides estimates of abundance, composition, recruitment, and distribution data that would assist in developing effective harvest and depredation control strategies.

Elk

Snake River Zone (GMUs 53, 63, 63A, 68A)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
53		(60)	(20)	(15)	0	0	0
63		(200)	(100)	(50)	25 - 35	5 - 10	1 - 5
63A		(0)	(0)	(0)	0	0	0
68A		(0)	(0)	(0)	0	0	0
Zone Total		**(260)**	**(120)**	**(65)**	**25 - 35**	**5 - 10**	**1 - 5**
Bulls per 100 Cows			**(46)**	**(25)**		**18 - 24**	**10 - 14**

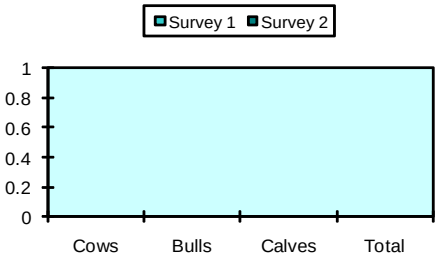
Note: Estimates within parentheses are based on information other than sightability surveys.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
52A	ND					ND				
53	ND					ND				
63	ND					ND				
63A	ND					ND				
68	ND					ND				
68A	ND					ND				
Comparable Surveys Total		**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
Per 100 Cows										

Note: ND = no survey data available.

Comparable Survey Totals

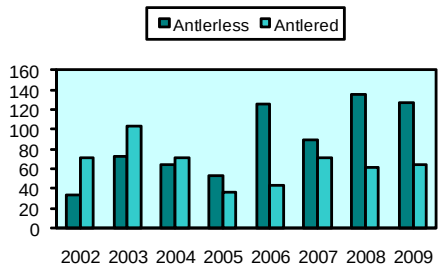


Zone Harvest Statistics

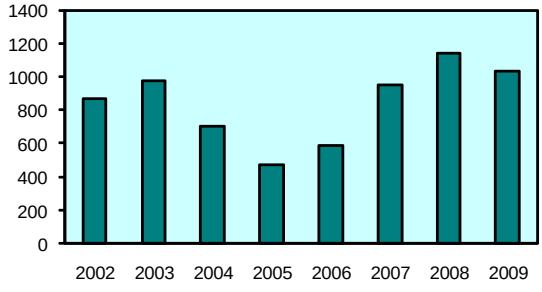
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	33	73	64	53	126	90	136	127
'A' Tag	33	46	64	52	122	87	129	125
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	0	27	0	1	4	3	7	2
Antlered Harvest	71	104	72	36	44	72	61	65
'A' Tag	71	71	71	36	44	72	61	65
'B' Tag	0	0	1	0	0	0	0	0
CH Tag	0	33	0	0	0	0	0	0
Hunter Numbers	865	976	706	474	590	951	1143	1029
'A' Tag	859	770	702	448	579	932	1126	1013
'B' Tag	6	2	4	0	0	0	0	0
CH Tag	0	204	0	26	11	19	17	16
% 6+ Points	20	45	48	34	18	49	18	25

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

Figure 20. Snake River Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	5	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

SOUTHEAST REGION

Bannock Zone (GMUs 56, 70, 71, 72, 73, 73A, 74)

Management Objectives

Objectives for Bannock Zone (Fig 21) are to maintain a wintering elk population of 510-745 cows and 125-165 bulls, including 60-110 adult bulls. Although no population estimate exists for this zone, field reports, combined with incidental observations from deer surveys, indicate that current numbers exceed objectives. A reduction in cows is necessary to alleviate significant depredation concerns and reduce the occupancy of elk in important mule deer winter ranges. A reduction in bulls and adult bulls will provide for hunter demand of antlered elk and balance bull numbers with cow numbers. Aggressive harvest rates will be necessary to achieve population objectives.

Historical Perspective

According to the Pocatello Deer-Elk Herd Management Plan (1945), in the early 1900s, elk were not found in the area and "deer were a rarity." In 1916-1917, 35 elk were transported by train from Gardiner, Montana, and released west of Pocatello. Counts in the 1930s and 1940s found 500-600 elk. By 1950, elk were reported to be spreading into the Elkhorn Mountain and John Evans Canyon areas (GMU 73), Blackrock (GMU 71), and Crystal and Midnight creeks (GMU 70).

In a 1940 report, Ted Trueblood said, "Elk (in this area) are a liability and a problem; deer would be an asset."

Elk hunts were first offered in the zone in 1933. Elk numbers declined in the 1950s due to "over-hunting by whites and Indians," and seasons were closed. Permit hunts were offered in some GMUs between 1962 and 1968. Populations remained at very low levels into the late 1980s. Since that time, elk have expanded dramatically in all but GMU 73A. By the mid-1990s, all GMUs except 73A offered some elk hunting opportunity.

The elk traditionally fed near Banida in GMU 74 have been increasing and are causing depredation and highway safety problems. An extra tag hunt was established to keep elk from causing these problems in the 2009-2010 season, this hunt has had some issues with landowners and may be changed to better address landowner concerns.

Habitat Issues

The topography of Bannock Zone (3,125,000 acres) is characterized by low, north-south mountain ranges separated by broad valleys. Elevations range from 4,000-9,000 feet. Mountains support mixed conifer/aspen stands on north slopes and mountain brush/grass communities on southern exposures. Juniper and mountain mahogany are common on lower slopes. Valleys are agricultural with large expanses of small grains, pasture, and hay. Grazing, logging, and urbanization are additional factors affecting habitats in the zone.

Land ownership is 55% private, 30% federal, 5% state, and 10% Indian reservation. Access is widespread with few areas more than one mile from some type of road.

Winter range consists of windswept ridges, Conservation Reserve Program (CRP) acreage, and other agricultural fields. Depredation damage complaints from private landowners have increased dramatically in several areas in recent years.

Biological Issues

Calf recruitment rates have not been measured in this zone. However, the rapidly increasing numbers observed and changes in distribution suggest a highly productive herd. Additionally, newly colonizing populations without any known competition tend to have high recruitment rates. Given that recruitment is probably high, high harvest rates will be necessary to achieve population objectives.

Inter-specific Issues

The concurrent increase in numbers of elk and decrease in mule deer on some winter ranges has raised concerns about possible competition for forage and/or social intolerance. Livestock operators in several areas have complained about increasing elk use of forage on public land grazing allotments and private lands.

Predation Issues

Mountain lions are the major natural predators of elk in the zone and are judged to be at relatively high levels in most areas; however, expanding populations of elk do not indicate that predation is significantly impacting numbers. Coyotes are quite common but not believed to be a major predator of elk. Black bears exist at extremely low levels within the zone and, therefore, are not an important source of mortality for elk.

Winter Feeding Issues

Emergency supplemental feeding of elk has not been conducted in the zone. A rancher on the west side of GMU 72 has fed a small number of elk several winters for the purpose of keeping them out of his cattle feedlot. Elk have been fed on the west side of GMU 74 for the same reason.

Information Requirements

Elk permits have increased significantly from conservative to relatively higher levels over the past decade. A greater level of precision in estimating elk numbers and population change (recruitment) would help in determining appropriate levels and types of hunting to help achieve population objectives.

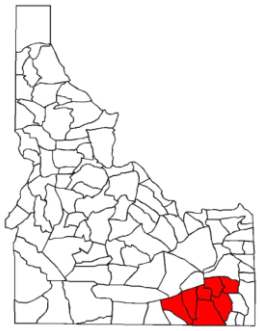
Better understanding of mule deer/elk interactions, particularly on winter ranges, would help to determine future management direction for both species. A future question for wildlife managers and the public may be "Do we want to favor deer or elk?"

Elk
Bannock Zone (GMUs 56, 70, 71, 72, 73, 73A, 74)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
56		(125)	(75)	(50)	100 - 150	30 - 50	20 - 30
70		(100)	(40)	(25)	50 - 75	5 - 15	5 - 10
71		(50)	(20)	(20)	50 - 75	5 - 15	5 - 10
72		(300)	(100)	(60)	50 - 75	5 - 15	5 - 10
73		(150)	(50)	(30)	100 - 150	20 - 30	10 - 20
73A		(10)	(5)	(5)	10 - 20	1 - 5	1 - 5
74		(300)	(100)	(60)	150 - 200	25 - 35	15 - 25
Zone Total		**(1035)**	**(390)**	**(250)**	**510 - 745**	**125 - 165**	**61 - 110**
Bulls per 100 Cows			**(38)**	**(24)**		**18 - 24**	**10 - 14**

Note: Estimates within parentheses are based on information other than sightability surveys.

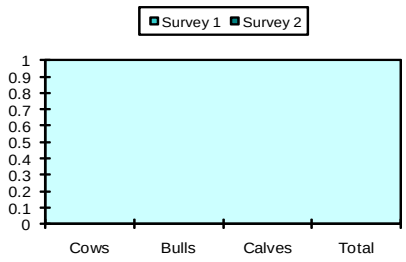


Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
56	ND					ND				
70	ND					ND				
71	ND					ND				
72	ND					ND				
73	ND					ND				
73A	ND					ND				
74	ND					ND				
Comparable Surveys Total		**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
Per 100 Cows										

Note: ND = no survey data available.

Comparable Survey Totals

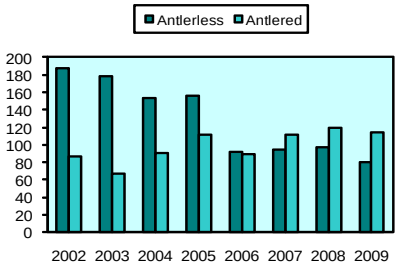


Zone Harvest Statistics

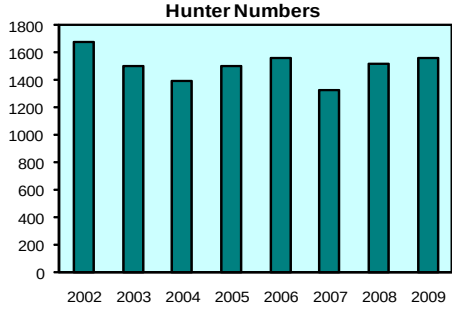
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	187	178	154	156	92	94	97	80
'A' Tag	187	177	154	102	87	85	89	66
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	0	1	0	54	5	9	8	14
Antlered Harvest	87	67	90	111	89	111	119	114
'A' Tag	23	22	24	20	29	42	36	49
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	64	45	66	91	60	69	83	65
Hunter Numbers	1675	1500	1391	1500	1564	1329	1520	1562
'A' Tag	1432	1291	1186	1071	1220	975	1145	1179
'B' Tag	5	8	4	0	0	0	0	0
CH Tag	238	201	201	429	344	354	375	383
% 6+ Points	39	57	44	44	48	44	35	40

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

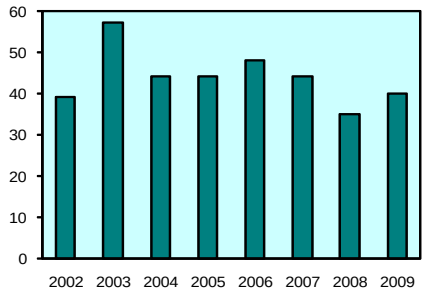


Figure 21. Bannock Zone elk status and objectives.

Diamond Creek Zone (GMUs 66A, 76)

Management Objectives

Objectives for Diamond Creek Zone (Fig 22) are to maintain a wintering elk population of 1,300-1,960 cows and 400-600 bulls, including 255-365 adult bulls. Limited amounts of suitable winter range in GMU 66A preclude significant increases in the wintering population for that GMU. Although GMU 76 could support a higher wintering population, it would be at the expense of significant depredation concerns and increases in elk occupying mule deer winter ranges. The most recent aerial survey (2008) indicates that the population is below objectives for cows, and adult bulls.

Historical Perspective

The elk population in Diamond Creek Zone has increased dramatically from early historical records. Accounts of trappers through this area in the mid-1800s suggest that although elk were common, buffalo and bighorn sheep were far more numerous. Undoubtedly, the unregulated harvest of the late 1800s and early 1900s maintained at or reduced populations to relatively low levels. By 1952, elk were believed to be numerous enough to warrant the first hunting season with 250 permits for either-sex elk in GMUs 66, 66A, and 69. An aerial survey of GMU 76 during February 1952 resulted in 193 elk observed with a total population estimate of 230. Elk in GMU 66A are primarily migrational and winter with elk in GMUs 66 and 69. The first hunt in GMU 76 began in 1964 with 75 either-sex permits.

As the elk population grew, so did hunting opportunity. Although this zone has primarily been managed via controlled permits, several general hunting seasons have occurred since regulated harvest began. Between 1955 and 1959, general hunts were held in GMUs 66, 66A, and 69 varying between a three-day antlered-only to a 10-day either-sex season. Again in 1968 and 1969, nine-day antlered-only general seasons were offered. The last general hunting opportunity in GMU 66A occurred in 1975 with a three-day antlered-only season.

The most recent population survey (2008) estimated a total of 2,220 elk in GMU 76. This total represents a decrease over the 2005 estimate. Historically, elk in GMU 76 summered and wintered within the GMU; however, as populations have increased, there has been use of wintering areas outside the GMU.

In efforts to deal with depredations and potential human safety issues on highways, the Department has instituted extra tags for elk "conditioning" in late winter. These hunts are in December and designed to make private land and areas near highways as unattractive as possible for problem elk herds. They proved to be a success in the 2005 season; however, hunts did not continue into January and elk came back off public lands and returned to old habits. The Department has continued the hunts in 2006 and added some hunts for the month of January to continue pressure, forcing elk to stay on public lands. In 2007 controlled elk hunts were dropped 30% to 400 permits. Further reductions in elk tags occurred in 2009 and 2010. Reductions were made in cow tags to 300 late season bull tags (an additional 100 tag reduction), and further reduced cow tags and split them by unit, 700 tags in unit 76 and 300 tags in unit 66A. Archers

were also reduced from an average of 2,100 per year to a fixed number of 1,837 per year, with 45% of these tags allocated to non-residents. In 2010 the trophy bull tags were decreased from 50 to 35, and the archery quota was maintained at 1,837.

Habitat Issues

Diamond Creek Zone represents some of the most productive habitat found in southeastern Idaho. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Past habitat-use research indicates that aspen habitat types are highly preferred, especially during non-snow periods. Fire suppression efforts and intensive livestock grazing in the past have resulted in increased shrub and conifer cover with a reduction in the aspen component since historical times.

Approximately 65% of the land in Diamond Creek Zone is publicly owned, primarily USFS. The 35% private land is used for rangeland pasture and small grain and hay production. Depredation complaints have generally increased in the last decade. Predominate land uses of the publicly-owned ground include livestock grazing, timber management, recreation, and phosphate mining. Approximately 35% of the known U.S. reserves of phosphate ore are located in Diamond Creek Zone.

Open habitat types combined with moderate road densities (0.7-2.3 miles/square mile) and, in some cases, unrestricted ATV travel result in a relatively high vulnerability standard for elk in Diamond Creek Zone.

The Diamond Creek Zone has rich veins of elemental phosphate within its boundaries. This has been and continues to be a habitat concern given the number of forested tracks converted into grassland, and the number of mines in operation and that will be created over the next 30 years. Additionally, the impact of elk feeding on these sites with high selenium concentrations in the forage is not entirely understood.

Biological Issues

Calf:cow ratios, as measured during aerial surveys, indicate a healthy, productive herd in Diamond Creek Zone. High calf:cow ratios are consistent with growing populations that are not heavily influenced by density-dependent factors. Given these high levels of recruitment, relatively high harvest rates of antlerless elk are necessary to stabilize populations. Additionally, liberal bull harvest rates can be sustained by high recruitment rates.

Inter-specific Issues

Although both livestock and elk numbers within Diamond Creek Zone are high, there appears to be little concern by livestock operators of competition for grass. However, localized concerns do exist for livestock (primarily sheep) over-utilization of ridge-tops used by wintering elk.

During the mid-1900s, GMU 76 supported a high population of mule deer with relatively few elk. Important mule deer wintering areas included Brown's Canyon to Yellowjacket Creek, east

of Henry, Stump Creek, Crow Creek, and the Soda Front from Wood Canyon to Dingle. Today, these winter ranges are predominately occupied by elk. It is unknown whether habitat changes and/or competition (resource or social intolerance) have led to this change. However, there appear to be areas with suitable deer winter range vegetation that are only occupied by elk. Extensive populations of wintering mule deer are not expected to occur with current distribution and numbers of elk in this zone.

Predation Issues

Potentially major predators of elk in Diamond Creek Zone include black bears and mountain lions. The black bear population is extremely low and probably has remained unchanged for many years. Mountain lions are believed to have increased during the last 30 years. However, current recruitment rates and other elk population parameters suggest this increased mountain lion population is not having a significant effect. Coyotes are common but not believed to be a significant predator on elk.

Winter Feeding Issues

Emergency supplemental feeding of elk has been provided during four winters since 1981 in Diamond Creek Zone. Numbers of animals fed have ranged from 200-880. Recurrent emergency feeding areas include near Freedom, Thomas Fork Valley, Crow Creek, Stump Creek, and Bischoff Canyon. Additionally, it is believed that some elk summering in this zone migrate to annual winter feed grounds in adjacent Wyoming. During 1985, 122 elk were trapped near Stump Creek and translocated elsewhere. On-site testing for Brucellosis resulted in no positive responses. However, during 1992-1993, a group of 300 wintering elk in Idaho and Wyoming along the Thomas Fork Valley were trapped and marked in Wyoming. One out of the 40 elk tested showed a positive Brucellosis response.

Information Requirements

Recently, observed changes in winter distribution of elk in Diamond Creek Zone are poorly understood. Possible explanations include a population that has reached habitat fill, habitat change resulting in less suitable winter range, and/or random behavioral response to differing environmental conditions. A better understanding of the processes involved in winter range selection would aid in a better ecological understanding of elk in this zone and lead to more responsive management actions.

Diamond Creek Zone has been a highly popular area for archery hunting. It is believed that a significant amount of archery harvest occurs in this zone; however, past data collection efforts have been inadequate to precisely monitor archery harvest. Better archery harvest information would enhance management efforts.

Elk
Diamond Creek Zone (GMUs 66A, 76)

Winter Status & Objectives

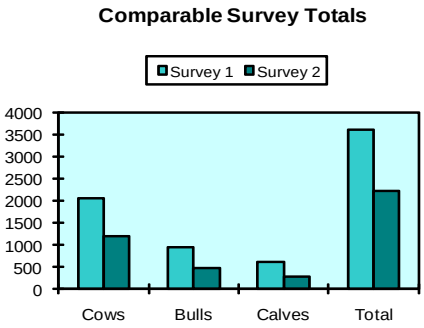
	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
66A		(50)	(25)	(20)	40 - 60	15 - 25	5 - 15
76	2008	1205	478	285	1260 - 1900	385 - 575	250 - 350
Zone Total		**1205**	**478**	**285**	**1300 - 1960**	**400 - 600**	**255 - 365**
Bulls per 100 Cows			**40**	**24**		**30 - 35**	**18 - 24**

Note: Estimates within parentheses are based on information other than sightability surveys.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
66A	ND					ND				
76	2005	2059	934	620	3613	2009	1205	478	285	2220
Comparable Surveys Total		**2059**	**934**	**620**	**3613**		**1205**	**478**	**285**	**2220**
Per 100 Cows			**45**	**30**				**40**	**24**	

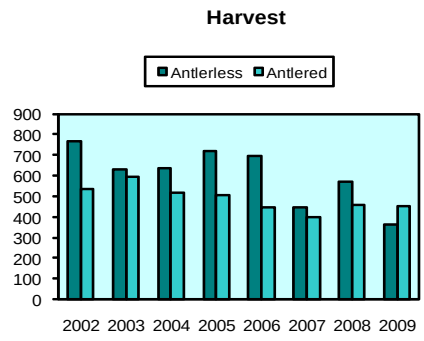
Note: ND = no survey data available.

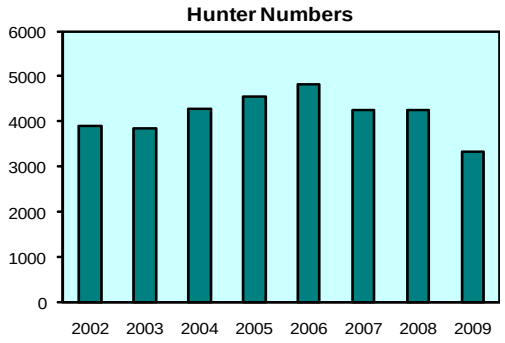


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	768	632	634	717	698	448	573	364
'A' Tag	88	90	94	84	66	63	69	65
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	680	542	540	633	632	385	504	299
Antlered Harvest	537	597	520	505	446	400	458	449
'A' Tag	224	249	262	259	201	196	272	301
'B' Tag	0	4	0	0	0	0	0	0
CH Tag	313	344	258	246	245	204	186	148
Hunter Numbers	3911	3855	4291	4544	4823	4256	4251	3326
'A' Tag	1869	2000	2251	2142	2228	2092	2050	1805
'B' Tag	42	25	0	0	0	0	0	0
CH Tag	2000	1830	2040	2402	2595	2164	2201	1521
% 6+ Points	34	44	37	41	34	51	40	46

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





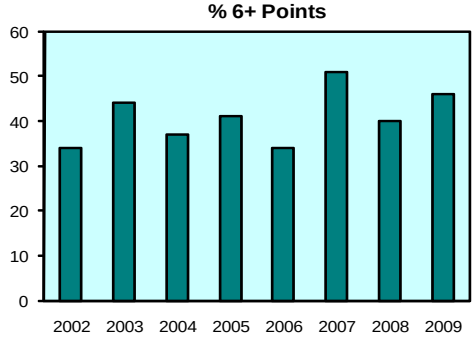


Figure 22. Diamond Creek Zone elk status and objectives

Bear River Zone (GMUs 75, 77, 78)

Management Objectives

Objectives for Bear River Zone (Fig 23) are to maintain a wintering elk population of 400-600 cows and 80-120 bulls, including 45-75 adult bulls. Although this zone could support a higher wintering population, it would be at the expense of significant depredation concerns and increases in elk occupying mule deer winter ranges. The most recent aerial survey (2006) indicates that the population has declined since 1996 with bull numbers meeting objective, and cow numbers very near objective.

Historical Perspective

The elk population in Bear River Zone has increased substantially from early historical records. Accounts of trappers through this area in the mid-1800s suggest that although elk were common, buffalo and bighorn sheep were far more numerous. Undoubtedly, the unregulated harvest of the late 1800s and early 1900s maintained at or reduced populations to relatively low levels.

Elk hunting in this zone began in the 1940s with controlled either-sex hunts, was closed for several years, and started up again in 1956 with general hunts for either-sex. GMU 75 was closed on and off through the 1960s. From 1968 through 1975, all GMUs were open to general either-sex hunting. Starting in 1976 through the present, all GMUs have been open for general antlered-only opportunity. In 1984 and 1985, a few either-sex permits were offered along with the antlered-only hunt. Since 1986, antlerless-only permits have generally increased.

Prior to the late 1970s, the vast majority of elk that summered in this zone wintered in Utah. Since that time, elk wintering in this zone have dramatically increased.

Habitat Issues

Bear River Zone represents some of the highest productive habitat found in southeastern Idaho. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Past habitat-use research indicates that aspen habitat types are highly preferred, especially during non-snow periods. Fire suppression efforts and/or intensive livestock grazing in the past has resulted in increased shrub and conifer cover with a reduction in the aspen component since historical times.

The USFS administers the majority of public ground (49% of total area) in this zone. Predominant land uses of public ground include livestock grazing, timber management, and recreation. Private ground makes up the remaining 51% and is used primarily for rangeland pasture and small grain and hay production. Since most of the potential elk winter range is privately held, depredation concerns have been significant. Several stackyards have been developed in order to alleviate some of the depredation concerns. The urban sprawl of subdivisions and small-acreage home-sites in this zone has also led to significant conflicts with wintering elk. The loss of winter range and conflicts with producers are the primary considerations limiting elk populations in Bear River Zone.

Because of relatively high amounts of conifer cover, Bear River Zone represents some of the best security cover found in southeastern Idaho. Increased use of ATVs and increases in road development will raise vulnerability standards in this zone.

Biological Issues

Calf:cow ratios, as measured during aerial surveys, declined from 40:100 in 1996 to 24:100 in 2006. A recruitment rate of approximately 25 calves per 100 cows is necessary to maintain elk populations and allow moderate levels of harvest.

Inter-specific Issues

The elk population in this zone has caused conflict with several livestock operations in the foothills. The main sources of concern are damage to fences and loss of hay, grain, and private rangeland forage.

Bear River Zone is also a highly productive mule deer area. Recent habitat changes appear to be favoring elk. Although these GMUs do show some niche separation during winter between elk and deer, recent observations indicate that elk are beginning to occupy suitable deer winter range.

Predation Issues

Potentially major predators of elk in Bear River Zone include black bears and mountain lions. The black bear population is extremely low and probably has remained unchanged for many years. Mountain lions are believed to have increased during the last 30 years. However, current recruitment rates and other elk population parameters suggest this increased mountain lion population is not having a significant effect. Coyotes are common but not believed to be a significant predator on elk.

Winter Feeding Issues

Emergency winter feeding of elk only occurs periodically in this zone. The last effort occurred during winter 1983-1984 with two sites in each of GMUs 75 and 77. An unknown but substantial number of elk are believed to migrate and winter in Utah, with some known to use the feeding operation at Hardware Ranch.

Information Requirements

An unknown but substantial number of elk are believed to migrate and winter in Utah. A better understanding of these numbers would benefit management recommendations.

Historically, harvest estimates from this zone have suffered from small sample size. The need exists for better precision of these parameters.

A more thorough understanding of mule deer/elk interactions, particularly on winter ranges, would help determine future management direction for both species. A future question for wildlife managers, land managers, and the public may be "Do we want to favor deer or elk?"

Elk
Bear River Zone (GMUs 75, 77, 78)

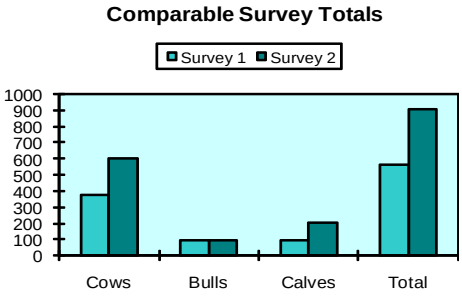
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
Zone	2010	606	98	58	200 - 300	40 - 60	25 - 35
Zone Total		**606**	**98**	**58**	**400 - 600**	**80 - 120**	**45 - 75**
Bulls per 100 Cows			**16**	**10**		**18 - 24**	**10 - 14**
Zone Total		**1212**	**212.2**	*	**400 - 600**	**80 - 120**	**45 - 75**
Bulls per 100 Cows			**14***	*		**18 - 24**	**10 - 14**

* Adult bull numbers were unable to be obtained due to later flight time and some antler shed had occurred.

Population Surveys

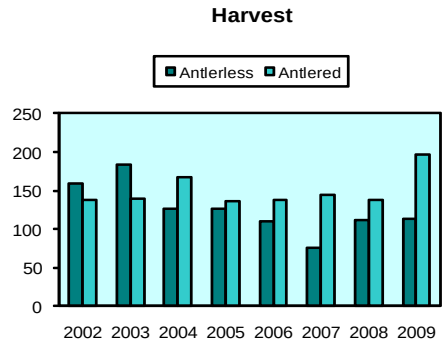
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
Zone	2006	379	91	91	561	2010	606	98	205	909
Comparable Surveys Total		**379**	**91**	**91**	**561**		**606**	**98**	**205**	**909**
Per 100 Cows			**24**	**24**				**16**	**34**	

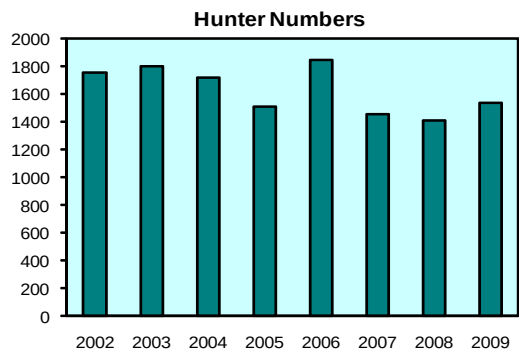


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	159	184	127	127	110	75	111	113
'A' Tag	159	184	126	122	104	70	102	102
'B' Tag	0	0	1	1	0	1	2	1
CH Tag	0	0	0	4	6	4	7	10
Antlered Harvest	137	140	168	136	138	144	137	196
'A' Tag	26	39	60	42	24	39	31	67
'B' Tag	97	85	98	82	105	94	92	116
CH Tag	14	16	10	12	9	11	14	13
Hunter Numbers	1750	1800	1710	1503	1839	1456	1407	1533
'A' Tag	1104	1083	984	704	1005	770	755	845
'B' Tag	622	693	702	709	750	643	617	610
CH Tag	24	24	24	90	84	43	35	78
% 6+ Points	32	35	32	29	19	31	30	40

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





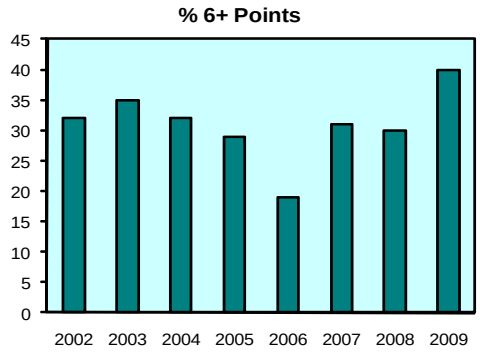


Figure 23. Bear River Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	6	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

UPPER SNAKE REGION

Island Park Zone (GMUs 60, 60A, 61, 62A)

Management Objectives

Objectives for the Island Park Zone (Fig 24) are to maintain a wintering elk population of 1,200-1,800 cows and 400-575 bulls, including 250-375 adult bulls. Currently, elk wintering on the Sand Creek winter range in GMU 60A are within objective for cows but below objective for bulls and adult bulls. In the past, obtaining adequate harvest on this population was difficult due to its migratory nature and the fact that significant portions of the herd spend fall in Yellowstone National Park and Harriman State Park where they are safe from harvest. During the early 2000's, weather during hunting season was adequate enough to get a good harvest, and we likely harvested the population harder than planned. Bull:cow ratios are difficult to measure for the hunted portion of the population, again, because they are inflated by those animals which avoid hunting. Additionally, a portion of the harvestable fall elk population in the Island Park Zone (particularly in Unit 61) migrates to winter ranges in Montana, and therefore is not counted as part of the Sand Creek sightability surveys in Unit 60A. The Island Park Zone currently provides the widest array of hunting opportunity available, including archery, centerfire, and muzzleloader seasons; early and late hunting; and controlled any-bull and either-sex hunts.

Historical Perspective

Elk have been present, in varying numbers, in portions of the Island Park Zone throughout recorded history. There has been a general elk season in all or part of Fremont County since 1882. This undoubtedly is the longest running general hunting opportunity in the state. During much of the early twentieth century, these hunts were based upon elk populations summering in Yellowstone National Park.

In the late 1940s, elk were first observed wintering on high desert habitats of GMU 60A, with 582 wintering elk recorded in 1952. These wintering populations varied from about 700 to 1,200 elk until the mid-1970s, at which time the elimination of general either-sex elk hunting resulted in a rapidly increasing winter population. The population peaked in the winter of 1999-2000, when a total of 4,134 elk were estimated on Sand Creek winter range.

General bull hunting was restricted to spikes-only in 1991 in response to an accelerated timber harvest program on Targhee National Forest that resulted in poor bull escapement and low bull:cow ratios. Antlerless elk hunting opportunity has been managed through controlled hunts and, beginning in 1993, permits have been offered for any-bull hunting opportunity throughout the Island Park Zone.

Habitat Issues

Most elk summer range in the Island Park Zone occurs on USFS lands and is dominated by gentle topography lodgepole pine communities. Douglas fir stands are common on sloped sites. Timber management practices from 1970-1990 severely altered habitat in the Island Park Zone. In the mid-1970s, approximately two-thirds to three-fourths of the merchantable lodgepole pine stands on the Targhee National Forest were classified as dead or dying due to a mountain pine beetle infestation. Consequently, the USFS dramatically accelerated timber harvest. The result was an extensive network of roads and clear-cuts, which reduced elk habitat effectiveness and greatly increased elk vulnerability. Implementation of road and area closures in some areas and increasing security cover from continued forest regeneration will continue to help offset some of these effects into the future.

The Sand Creek winter range supports a vegetative complex typical of high-desert shrub-steppe dominated by sagebrush. Bitterbrush and chokecherry are prominent on areas of stabilized sand. Land ownership consists of a checkerboard of state, BLM, and private property. Cooperative use-trade agreements have benefited the elk population. Agricultural encroachment and suburban developments continue to threaten winter range in the Island Park Zone.

There are a number of domestic elk ranching and, specifically, "shooter bull" operations in this area. These operations pose several threats to wild elk including loss of available habitat behind fences, obstruction of migration routes with fences, possible disease sources, and possible genetic introgression from escapees. In 2003, a 5,000-acre domestic elk operation was constructed on South Juniper Hill. This operation is on the fringe of historic elk winter habitat but has attracted elk to the area because of domestic elk inside the fence and put elk on top of historic deer winter range next to the fence. In 2005, construction was completed on a new pen on Big Grassy, which is the core of the traditional elk winter range. This pen is estimated to enclose 16 square miles of prime elk and moose winter habitat. An unknown number of domestic elk were placed in the pen in the middle of 2,000-3,000 wintering wild elk. These pens reduce potential carrying capacity of the winter range, and could pose other problems for the Island Park Elk herd.

Biological Issues

Until recently, winter elk populations had been increasing steadily in Island Park Zone since they were first noticed on the Sand Creek Desert in the late 1940s. A total of 582 were recorded in 1952. This total climbed steadily to the 4,134 elk counted in 2000 and then decreased to 3,246 in 2002 and 1,748 in 2006. Significant reductions in hunter opportunity (both to the general season and controlled hunts) were made after the 2006 survey. The population has apparently

responded to these changes, as there were 2,512 elk estimated during the 2010 sightability survey.

Recruitment measured through sightability surveys indicates the moderately productive nature of the herd, with calf:cow ratios typically in the 30-35 calves:100 cows range. Bull:cow ratios have rebounded markedly since the implementation of spike-only general hunting in 1991. Bulls:100 cows ratios have ranged from 40-68. It should be noted, however, that these totals are buttressed by an unknown segment of the population that spends summer and fall in Harriman State Park and Yellowstone National Park. These animals are largely un-harvested, being subjected to hunting pressure only while migrating to winter range.

An unknown segment of the harvestable fall population, primarily in GMU 61, migrates to winter ranges in Montana. These animals are likely available for harvest during at least a portion of the Island Park seasons, but are not in Idaho during sightability surveys. During spring 2009, the Department initiated a research project designed to assess newborn elk calf survival, document seasonal movements, and determine wintering destination for elk summering in GMU 61. The first year's calf capture effort (2009) was focused around Henry's Lake in GMU 61. Thirty-eight calves were collared around Henry's Lake, as far west as Icehouse Creek. Early calf survival (birth through 3 months of age) was 90% for the collar calves. Survival of calves through April of 2010 was 83%. Four calves died during monitoring: 1 mountain lion predation, 1 probable black bear predation, and 2 of unknown cause (i.e., not enough evidence to determine cause). Most (>90%) of the collared calves remained in Idaho during all of the Island Park Zone elk hunting seasons, while 2 calves ventured into Montana during the latter part of the general season. Of the 10 calves that retained their collars throughout the winter migration, 6 migrated to winter ranges in Montana (from the ID-MT border to as far north as Moose Creek in the Madison Valley), 3 wintered along the west side of Henry's Lake (Duck Creek), and 1 migrated to the traditional Island Park winter range on the Sand Creek desert (wintered east of Hamer). The calf that migrated to the Sand Creek desert was collared in the east end of the Shotgun Valley (Icehouse Creek), while all of the calves collared around Henry's Lake stayed around the lake or moved to Montana. The year two effort (2010) focused in the western portion of 61 (Centennial Mountains), from Icehouse Creek to I-15. IDFG personnel collared 42 newborn calves in the study area during the spring of 2010, with a good distribution of collared calves from east to west. The movements and survival of these calves will be monitored through the spring of 2011, and a final project report to be completed during the summer-fall of 2011.

During the winter of 2008-2009, 39 elk were translocated from GMU 74 (near Swan Lake) to winter range in GMU 60A (Egin-Hamer Road). These elk were a repeat depredation problem in GMU 74. All of the elk tested negative for Brucellosis prior to the translocation.

Domestic elk operations located in this zone present a significant risk of impacting wild herds. Many of these operations are shooter bull based with large pens and are within occupied elk range. This leads to significant opportunity for domestics to contact wild elk through the fence or by escape. This presents risk of disease transmission and genetic introgression.

Inter-specific Issues

Unfortunately, little evidence exists to evaluate the potential relationships between elk, mule deer, and moose in the Island Park Zone. White-tailed deer are scattered throughout the Island Park Zone mainly along riparian corridors, and appear to be expanding their range within the Zone. Heavy grazing/browsing by deer, elk, and moose may alter Columbian sharp-tailed grouse habitats.

Domestic sheep and cattle grazing occur throughout the Island Park Zone which could pose some competitive concerns for elk, especially on winter range during drought years.

Predation Issues

Black bear densities appear to be moderate and stable in the Island Park Zone. Grizzly bear numbers are increasing and their range seems to be expanding westward in the Zone. Mountain lions are relatively rare. Coyotes are common, especially in the winter range portion of Island Park Zone, but are not known to have much impact on elk populations. Wolves introduced by the USFWS in Yellowstone National Park have become established in the Island Park zone, which could affect other predators and this elk population. During the reporting period there were 4 documented wolf packs (Bishop Mountain, Biscuit Basin, Fogg Butte, Henry's Lake) that had territories entirely within the Zone and at least 2 additional packs (Sage Creek [MT], Bechler [YNP]) that had territories that were partially in the Zone. However, the Sage Creek (MT) pack was removed by Wildlife Services agents in response to livestock depredations.

Winter Feeding Issues

No Department-sponsored elk feeding activities occur in the Island Park Zone except under emergency situations. Agricultural encroachment on Sand Creek winter range increases risk of elk depredations on stored crops, especially under adverse winter conditions. Some feeding by private citizens, resulting in the short-stopping of elk, has occurred on Ashton Hill. Educational efforts need to continue to give non-sanctioned feeders a better understanding of problems associated with artificially-fed elk.

During the winter of 2007-2008, approximately 800 mule deer were fed on an emergency basis at Sand Creek WMA. No elk were observed on this feed line during the operation, but elk were observed in the vicinity. During the very end of the winter of 2008-2009, the Department baited (10-15 bales of hay) a small group of elk (approximately 12) away from Ashton. The elk had been feeding on a hay stack and were staying in close proximity to the highway. The baiting was used to move them away from the highway, decreasing the public safety risk. Also during the winter of 2008-2009, approximately 200 elk wintered above the Sand Creek ponds. These elk had essentially become "trapped" in the area as snow accumulated quickly on the desert to the west. The Department was poised to supply these elk with supplemental feed if conditions warranted it, but the decision was made that conditions for these elk were satisfactory and the elk were not fed. Winter 2009-2010 conditions were mild and no feeding or baiting was necessary.

During the winter of 2008-2009, approximately 150 elk severely depredated about 60 tons of stacked hay northeast of Hamer. The Department provided hazing and exclusion materials to the landowner, implemented a depredation hunt in the area (6 elk harvested on the hunt), and paid a depredation claim on the 60 tons of hay. Periodically, agricultural producers dump excess potatoes in the Sand Creek Desert, and elk have been observed wintering on these sites.

Information Requirements

Sightability estimates are needed periodically to monitor this elk population. Also, better knowledge of summer/fall spatial distribution of this elk herd could improve our ability to achieve harvest objectives. In addition, this information is valuable to assess the effectiveness of the travel management policy on the Targhee National Forest. A better understanding of interstate movements of the Island Park elk, particularly those moving to winter ranges in Montana, could improve our harvest management and allow us to better tailor our season structure to facilitate interstate elk management cooperation. The ongoing elk calf survival and movements study in GMU 61 should improve our understanding of this populations movements and harvest availability.

Elk
Island Park Zone (GMUs 60, 60A, 61, 62A)

Winter Status & Objectives

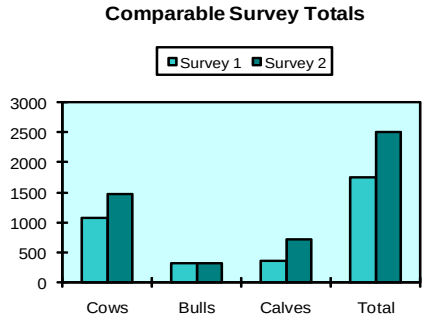
	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
60	ND				0	0	0
60A	2010	1476	313	190	1200 - 1800	400 - 575	250 - 375
61	ND				0	0	0
62A	ND				0	0	0
Zone Total		**1476**	**313**	**190**	**1200 - 1800**	**400 - 575**	**250 - 375**
Bulls per 100 Cows			**21**	**13**		**30 - 35**	**18 - 22**

Note: ND = no survey data available.

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
60	ND					ND				
60A	2006	1069	315	364	1748	2010	1476	313	722	2512
61	ND					ND				
62A	ND					ND				
Comparable Surveys Total		**1069**	**315**	**364**	**1748**		**1476**	**313**	**722**	**2512**
Per 100 Cows			**29**	**34**				**21**	**49**	

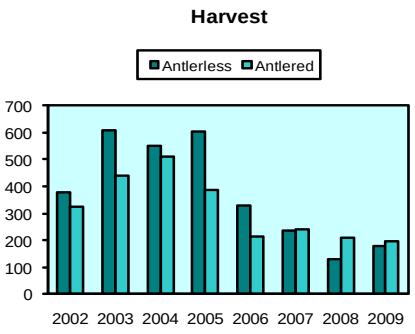
Note: ND = no survey data available.

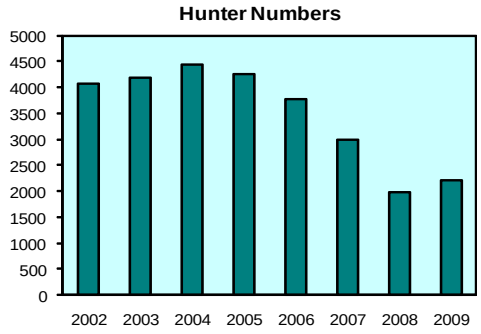


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	378	608	553	602	330	235	128	176
'A' Tag	93	120	76	118	67	76	51	82
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	285	488	477	484	263	159	77	94
Antlered Harvest	326	442	511	385	214	241	211	196
'A' Tag	158	159	269	171	110	151	157	132
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	168	283	242	214	104	90	54	64
Hunter Numbers	4068	4182	4442	4255	3760	2994	1990	2208
'A' Tag	2244	2040	2302	1972	2403	1579	1441	1515
'B' Tag	4	0	0	0	0	0	0	0
CH Tag	1820	2142	2140	2283	1357	1415	549	693
% 6+ Points	26	39	41	33	24	30	46	39

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





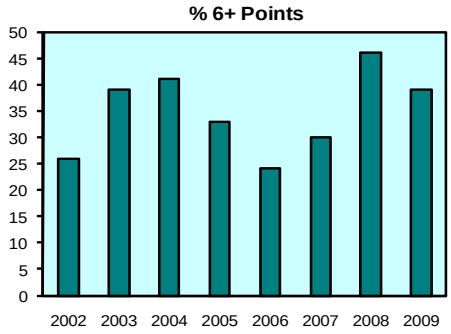


Figure 24. Island Park Zone elk status and objectives.

Teton Zone (GMUs 62, 65)

Management Objectives

Objectives for Teton Zone (Fig 25) are to maintain 150-250 cows and 35-55 bulls, of which 15-35 should be adult bulls. This represents approximately a 17% reduction from 1996 levels and is designed to eliminate artificial feeding operations at Victor, Conant Creek, and Felt as directed by the Wildlife Brucellosis Task Force Report and Recommendations to the Governor (September 1998). Following elimination of feeding, the population will be allowed to recover to the extent it can be supported on natural forage. Population manipulation will be accomplished primarily through public hunting; however, capture and translocation may be used if hunting is unsuccessful in achieving objectives.

Radio collar information suggests that well over half of the elk in this zone spend spring, summer, and fall in Wyoming or Yellowstone National Park. They often do not enter Idaho until after the general hunting seasons are over. This presents a difficult challenge for management. These migratory elk provide little opportunity for Idaho hunters, particularly in the eastern portion of GMU 65 where they cause depredation problems during winter.

Historical Perspective

Reports of elk in the 1800s and early 1900s are imprecise and inconclusive for this area; however, it is likely elk were present. General either-sex hunting was allowed until the mid-1970s. At that time, over-harvest became a concern and the format was changed to allow five days of general hunting for bulls only. Hunting for antlerless elk was restricted to permits. Winter range in the zone has always been limited by elevation and associated deep snows, and by agricultural development. The elk population was relatively stable through the 1980s with 50-60 animals wintering in the Game Creek/Moose Creek area, 30-40 animals wintering along Teton River in the basin, 40-50 animals being fed at a ranch on Conant Creek, and approximately 100 elk wintering in and adjacent to Teton River and its tributaries north of State Highway 33. Elk populations increased dramatically in the 1990s. The most recent surveys conducted during the winters of 2000-2001 and 2005-2006 estimated 337 and 371 total elk, respectively. However, winter conditions likely affected elk distribution within the Zone and between Idaho and Wyoming.

Habitat Issues

Although extensive logging and roading on national public lands over the last three decades has reduced elk habitat effectiveness and elk security, ample summer range remains. True winter range has always been limited in this zone due to high elevations and associated deep snows and severe temperatures. A large area of winter range in the western portion of GMU 62 has been converted to agriculture. Some of this land is now enrolled in the CRP program. Elk winter range was lost to the construction and subsequent failure of the Teton Dam, although the greatest habitat loss associated with that event was deer habitat. Recently, urban sprawl, particularly in the east portion of GMU 65, has crept up the hillsides and reduced much of what limited winter

range existed in that portion of the zone. Additionally, recent increases in winter recreation (snowmobiles and skiing) likely reduce suitable winter range.

Biological Issues

The most pressing biological issues in this zone relate to the overall size of the wintering population in GMUs 62 and 65. The Teton Basin population (GMU 65) has increased over the past 10 years and consists of two groups. One herd winters east and south of Victor. It is estimated the winter range in the area could support 50-60 animals. Addressing overpopulation through harvest is difficult in this area because many of the animals are in Wyoming until late winter. The other group winters along the Teton River in Teton Basin. They have increased to 130 animals and pose a major depredation threat under normal winter conditions. This herd could potentially be controlled with hunting, as they most likely move to the Teton Basin from the Big Hole Mountains.

There are two groups of elk that have been historically fed in GMU 62. The Department has undergone many strategies to move or redistribute these elk through hunting. These animals have been fed during winter on private ranches at Teepee Creek and Conant Creek. Both feed grounds have been eliminated. As both a brucellosis control method and to comply with Commission policy, annual feeding operations should be eliminated. These feed grounds likely short-stopped elk that historically migrated further to the west during the winter. These elk summer in Wyoming and in the Bechler Meadows area of Yellowstone National Park.

Domestic elk operations present in this zone present a significant risk to wild herds. Many of these operations are shooter bull-based, with large pens within occupied elk range. This leads to significant opportunity for domestics to contact wild elk through the fence or by escape. This presents risk of disease transmission and genetic introgression. This occurred in the Teton Zone in August of 2006 when approximately 160 domestic elk escaped from the Chief Joseph hunting preserve. Many of the elk were destroyed by hunter and agency personnel but an unknown number are still at large.

Inter-specific Issues

This zone contains a good mule deer population, a significant white-tailed deer population in Teton Basin, and a strong moose population. The area is grazed extensively by domestic livestock. Inter-specific relationships among these species and elk are not monitored and are poorly understood. There is concern over elk herds establishing winter use in traditional mule deer winter range in Teton Canyon.

Predation Issues

Black bear densities appear to be moderate and stable in Teton Zone. Mountain lions are relatively rare. Coyotes are common, but are not known to have much impact on elk populations. Grizzly bear numbers are increasing and the range seems to be expanding southward in the Zone. Wolves introduced by USFWS in Yellowstone National Park in 1995 have become established, which could affect elk. Three established wolf packs have territories

that are at least partially within the Teton Zone (Biscuit Basin, Bitch Creek, and Chagrin River [WY]).

Winter Feeding Issues

Winter feeding has occurred at several locations in this zone on a regular basis. Continued annual feeding at these sites is in direct conflict with Commission policy and creates opportunities for brucellosis transmission. Observations during the 2000-2001 aerial survey indicated that most elk in this zone were associated with private feeding operations. Observations during the 2005-2006 aerial survey indicate that many elk were still associated with private feeding in this zone but many were more spread out on smaller residential feed sites in the Teton Valley. During the winter of 2007-2008, most elk in the Teton Valley were concentrated at a department sanctioned bait site along the Teton River (see below). No Department sanctioned feeding or baiting of elk occurred in the Teton Zone during the winter of 2008-2009 or 2009-2010. A description of the history of each feed site follows.

Victor - A herd of approximately 50 elk traditionally wintered in the foothills east and south of Victor. Around 1990, a landowner began feeding this elk herd, which has grown each year and now numbers approximately 200 animals. The Department has rejected all requests to feed elk or establish a permanent feed ground at this site. Permanent stack yards, panels, and hazing have been employed to combat depredations at this site. A large damage payment was made to a nursery in the vicinity, which was then fenced at significant expense. The Department provided hay to this operation on two winters, which were deemed to be emergency cases.

Conant Creek - In the late 1950s, a private landowner began feeding approximately 20 elk on upper Conant Creek. Over the years, the Department has provided this landowner hay to bait the elk away from stored hay and cattle. The number of elk increased and in the interim, the Department tried to work with the landowner to solve the problem with options other than feeding. All such efforts were rejected and the landowner had successfully enlisted the support of politicians and sportsmen in continuing the feeding. Things changed in 2002 when the cattle herd tested positive for brucellosis. Since then, the cattle herd has been destroyed, a fence has been built to keep elk out of the feeding grounds, and no elk have been fed there.

Teepee Creek (Felt) - A landowner on Teepee Creek began feeding elk in the early 1990s. There are approximately 150 elk habituated to this operation. The Department has provided panels to the landowner to protect haystacks but has not provided any feed. During the winter of 2007-2008, a few elk were inadvertently fed in a horse corral but they seemed to disperse from the site later in the season. It is believed this and the Conant Creek operation have short-stopped elk from migrating to winter ranges further west.

During the winter of 2003-2004, the Department and the Winter Feeding Advisory Committee sponsored emergency feeding of 60 elk in the Packsaddle area and 80 elk east of Victor due to harsh winter conditions. During the winter of 2007-2008, the Department baited approximately 130 elk to a feed site along the Teton River in the Teton Valley. A total of 23 tons of hay were fed over a 71-day period. This effort was designed to limit the potential for disease transmission

between elk and cattle by baiting elk away from livestock feeding areas. It is believed that most of the wintering elk in the Teton Valley were visiting this bait site.

Information Requirements

A comprehensive inventory of winter range in this zone is needed to fully accomplish the objective of ending all winter feeding. The condition of some winter ranges may provide an opportunity for enhancement for elk, perhaps through seeding, burning, or changes in livestock management. As part of this, an assessment of the location, quality, and remaining terms of enrollment of the area's CRP lands is essential if the fed populations in this zone are to become self-sufficient. Continued work with private landowners in the Zone to secure stored crops and winter feed lots is also important to segregate wintering elk and cattle. Additionally, information on snowmobile use of these lands is needed. If the lands are to be made available to elk, snowmobiles should be discouraged.

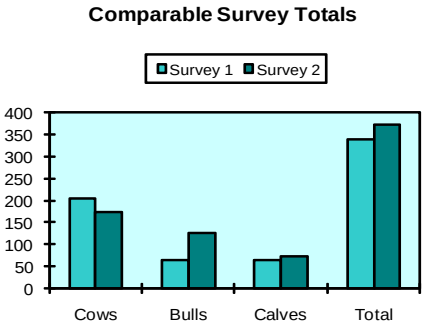
Elk
Teton Zone (GMUs 62, 65)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
62	2006	82	88	72	100 - 150	20 - 30	10 - 20
65	2006	91	37	23	50 - 100	15 - 25	5 - 15
Zone Total		**173**	**125**	**95**	**150 - 250**	**35 - 55**	**15 - 35**
Bulls per 100 Cows			**72**	**55**		**18 - 24**	**10 - 14**

Population Surveys

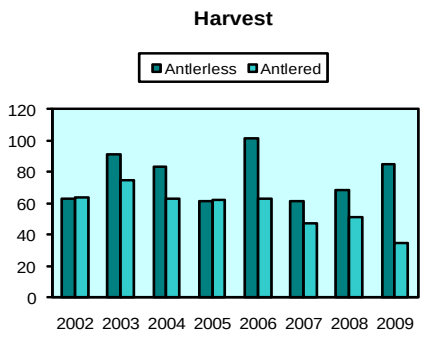
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
62	2001	108	49	40	197	2006	82	88	38	208
65	2001	97	17	26	140	2006	91	37	35	163
Comparable Surveys Total		**205**	**66**	**66**	**337**		**173**	**125**	**73**	**371**
Per 100 Cows			**32**	**32**				**72**	**42**	

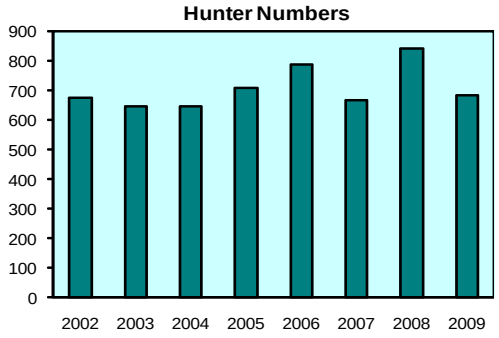


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	63	91	83	61	101	61	68	85
'A' Tag	30	26	47	19	19	28	44	75
'B' Tag	0	1	0	0	0	0	1	0
CH Tag	33	64	36	42	82	33	23	10
Antlered Harvest	64	75	63	62	63	47	51	35
'A' Tag	4	16	16	9	17	8	7	9
'B' Tag	16	11	12	35	22	17	21	8
CH Tag	44	48	35	18	24	22	23	18
Hunter Numbers	675	646	645	705	785	666	839	681
'A' Tag	280	268	278	275	326	268	396	438
'B' Tag	136	104	90	138	166	145	131	104
CH Tag	259	274	277	292	293	253	312	139
% 6+ Points	37	45	41	62	44	39	56	57

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





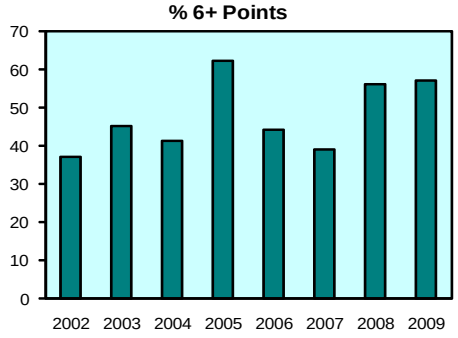


Figure 25. Teton Zone elk status and objectives.

Palisades Zone (GMUs 64, 67)

Management Objectives

Objectives for the Palisades Zone (Fig 26) are to maintain 400-600 cows and 125-200 bulls, of which 75-125 should be adult bulls. An aerial survey conducted during 2009 indicated that the population is at objective for cows and total bulls, and above objective for adult bulls. Current and future management efforts will be consistent with eliminating the artificial feeding operation that was conducted at Rainey Creek, as directed by the Wildlife Brucellosis Task Force Report and Recommendations to the Governor (Sept. 1998). Following elimination of annual feeding, the population will be allowed to recover to the extent it can be supported on natural forage, particularly on winter ranges northwest of Dry Canyon. Population manipulation will be accomplished primarily through public hunting; however, capture and translocation could also be employed. This zone offers most of what little semi-backcountry hunting opportunity remains in eastern Idaho.

Historical Perspective

Reports of elk in the 1800s and early 1900s are imprecise and inconclusive for this area; however, it is likely elk were present. General either-sex hunting was allowed until the mid-1970s. At that time, over-harvest became a concern and the format was changed to allow five days of general hunting for bulls only. Hunting for antlerless elk was restricted to permits. Elk damage to haystacks in Swan Valley dates back to the mid-1950s, corresponding with a loss of winter range from inundation by Palisades Reservoir on the South Fork of Snake River. In the mid-1970s, the Department began feeding elk in Rainey Creek to bait them away from livestock feeding operations. This activity continued until 2005 and involved approximately 150 animals. The Department does not plan to feed elk again at Rainey Creek. The elk population wintering in this zone has increased gradually over the last three decades.

Habitat Issues

Abundant spring, summer, and fall habitat exists in this zone. Winter range is limited and is more characteristic of mule deer habitat than elk habitat. Most elk winter range has been lost to agriculture and inundation by Palisades Reservoir, and is currently threatened by proposed housing developments. Potentially important winter ranges in the northern portion of the zone (Grandview Point) are now nearly vacant, likely due to displacement of elk by snowmobile activity. Winter range shrub communities on slopes in the vicinity of the mouth of Rainey Creek appear to have suffered from years of overgrazing by elk and mule deer. Mature mountain mahogany stands throughout the zone may be providing only limited forage, in addition to precluding all but a sparse understory of other species.

Biological Issues

The most pressing biological issues in this zone are related to the winter feeding of elk and the condition of available winter range for elk. The elk herd wintering in Rainey Creek, about 150 animals, has a documented brucellosis exposure rate exceeding 25%, based on testing of >100

individuals. Late hunts have had limited success in reducing this population. Until 2005, a program was implemented to capture and remove all positive-testing female animals and translocate negative testing animals to winter ranges northwest of Dry Canyon. This program was discontinued after 2005 and the Department has discontinued all feeding in Rainey Creek. Although a significant number of elk continue to use the Rainey Creek drainage during the winter, elk were more dispersed throughout the drainage, and adjacent areas, during the 2009 survey than they were during feeding operations prior to 2005. The Department goal is to keep wintering elk and cattle separated in Swan Valley using exclusionary devices (i.e., paneling, fencing) and hazing.

Domestic elk operations in this zone present a significant risk to wild elk herds. Many of these operations are shooter bull-based, with large pens in occupied elk range. This provides significant opportunity for domestic elk to contact wild elk through the fence or by escape. This situation creates a risk of disease transmission and genetic introgression.

Inter-specific Issues

In addition to elk, the Palisades Zone is home to an important mule deer population, a strong moose population, and is grazed extensively by domestic livestock. Inter-specific relationships among these species and elk are not well-monitored and are poorly understood. Competition between elk and mule deer is probably occurring in the immediate vicinity of Rainey Creek, where both species were frequently fed from the mid-1970s through 2005. There is also concern over wintering elk herds using traditional mule deer winter range in the Heise area.

Predation Issues

Black bear densities appear to be low-moderate and stable in this zone. Mountain lions are common. Coyotes are common, especially on the winter range, but are not known to have much impact on elk populations. Wolves introduced by USFWS in 1995 have moved through the area and may be established, which could affect elk. The closest documented wolf pack to the Palisades Zone occurs in the southeastern portion of GMU 65 (Chagrin River), and seems to spend a significant portion of the winter months in Idaho just east of Victor. However, there have been numerous, unverified accounts of wolves throughout portions of GMUs 64 and 67.

Winter Feeding Issues

In the late 1970s, a rancher near Irwin began feeding cattle near the mouth of Rainey Creek and along the USFS boundary. Concurrently, large areas of browse in the area were being converted to agriculture. The combination of these factors resulted in elk damaging stored hay and taking advantage of the livestock feed-lines. The Department resolved these conflicts by baiting the elk up into Rainey Creek. It is the Department's intent to eliminate all but emergency feeding of elk in this zone. This should also reduce any brucellosis-related concerns.

During the 2007-2008 winter, the Department baited approximately 125 elk to a site above Swan Valley on Pine Creek bench to prevent human safety concerns along Highway 26. A total of 24 tons of hay were fed over a 68-day period for this operation. Also during the 2007-2008 winter,

Department personnel used snow machines to push elk away from livestock operations in Swan Valley on numerous occasions. Due to relatively mild winter conditions, no feeding or baiting activities were necessary in this Zone during the winters of 2008-2009 or 2009-2010.

Information Requirements

A comprehensive inventory of winter range in this zone is needed. Although some winter range in the Zone has been lost forever (e.g., areas flooded by Palisades Reservoir), the condition of some winter ranges may provide opportunities for habitat enhancement for elk, perhaps through burning or changes in livestock management. As part of this, an assessment of the location, quality, and remaining terms of enrollment of the area's CRP lands will be needed.

Elk
Palisades Zone (GMUs 64, 67)

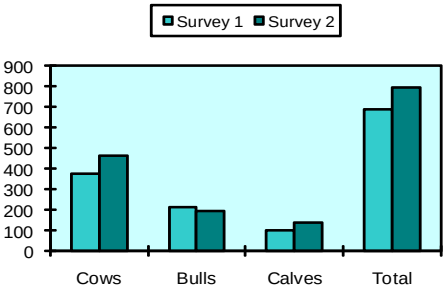
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
64/65w/67	2009	461	195	153	400 - 600	125 - 200	75 - 125
Zone Total		**461**	**195**	**153**	**400 - 600**	**125 - 200**	**75 - 125**
Bulls per 100 Cows			**42**	**33**		**30 - 35**	**18 - 22**

Comparable Survey Totals

Population Surveys

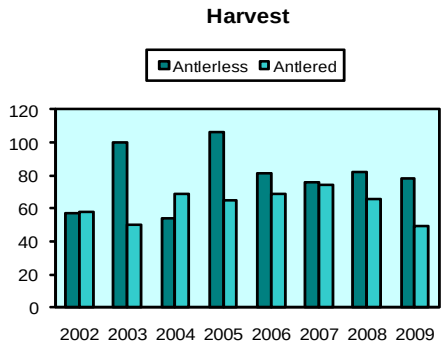
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
64/65w/67	2004	375	214	99	688	2009	461	195	141	797
Comparable Surveys Total		**375**	**214**	**99**	**688**		**461**	**195**	**141**	**797**
Per 100 Cows			**57**	**26**				**42**	**31**	

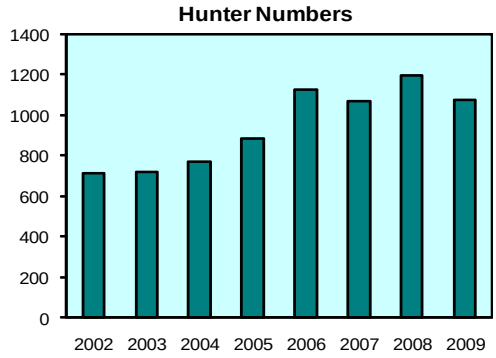


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	57	100	54	106	81	76	82	78
'A' Tag	16	21	54	101	80	74	72	71
'B' Tag	0	0	0	0	1	1	0	0
CH Tag	41	79	0	5	0	1	10	7
Antlered Harvest	58	50	69	65	69	74	66	49
'A' Tag	16	15	21	20	29	17	11	12
'B' Tag	40	35	48	44	40	52	51	31
CH Tag	2	0	0	1	0	5	4	6
Hunter Numbers	711	721	767	883	1125	1064	1192	1076
'A' Tag	300	315	477	506	801	703	750	692
'B' Tag	259	245	290	333	324	310	345	295
CH Tag	152	161	0	44	0	51	97	89
% 6+ Points	44	40	50	52	27	63	45	59

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





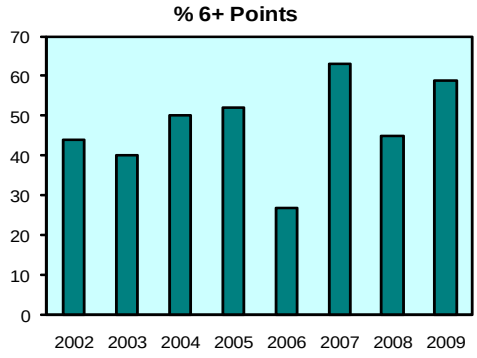


Figure 26. Palisades Zone elk status and objectives.

Tex Creek Zone (GMUs 66, 69)

Management Objectives

Objectives for the Tex Creek Zone (Fig 27) are to winter 2,000-3,000 cows and 425-625 bulls, of which 250-350 should be adult bulls. The most recent aerial survey information, winter of 2009-2010, indicates that cows, bulls, and adult bulls are all within objective. However, a large number of elk that summer in GMU 66A (Diamond Creek Zone) winter in the Tex Creek Zone and objectives differ between the zones, therefore harvest opportunity is problematic to manage. Management of Tex Creek elk should be coordinated with management of GMU 66A (Diamond Creek Zone). Depredation problems will be solved using hunting as a first option.

Historical Perspective

Elk were present in the Tex Creek Zone during the late 1840s, as reported by Osborne Russell in Journal of a Trapper (1914). According to residents of the area, elk were rarely seen during the early twentieth century. The elk population increased during the 1940s and by the mid-1950s depredation complaints on winter wheat were common. The first modern hunt was implemented in 1952 and consisted of 50 permits. Beginning in 1955, general hunting was allowed and has continued in some form to the present.

The elk population continued to grow through 2005, when the population was estimated at 5,200. Controlling growth of the Zone's elk population has driven harvest strategies during this period. Recently, historical over-harvest of bulls and under-harvest of cows has been addressed with implementation of the dual-tag zone system with general antlerless hunts and increased antlerless permits on late controlled hunts. Recent aerial surveys conducted in 2007 and 2010 estimated the population at 4,066 and 3,831 elk, respectively.

Habitat Issues

Habitat throughout the Tex Creek Zone is, or has the potential to be, highly productive. The fertile, mineral rich soils of the area produce diverse plant communities including sagebrush-grasslands, extensive aspen patches, and cool moist conifer stands primarily on north- and east-facing slopes. Terrain is generally mild and much of the private land in the area is dry-farmed with cereal grains. Nearly half of the zone is private land with the balance of public lands administered by USFS, BLM, IDL, and the Department. A significant portion of the private land is CRP-enrolled and is contributing substantially to the area's carrying capacity during all seasons. Tex Creek WMA, partially owned and totally managed by the Department, provides 30,000 acres of prime winter habitat for elk, mule deer, and moose in the zone. This land was purchased to mitigate for habitat inundated or destroyed by the Ririe, Palisades, and Teton Dams.

Biological Issues

From a biological perspective, elk in Units 66-69 (Tex Creek Zone) and 66A (Diamond Creek Zone) should be managed as one population, in the same zone. The Tex Creek elk are productive and their future management will be heavily influenced by the need to control this

population. Placing all seasonal ranges of these elk in the same zone would be appropriate to accomplish this objective.

Due to concern over total wintering elk numbers in GMU 69 being too high for the area and their impacts on the local mule deer herd, the antlerless hunt was restructured in 2004. The hunt was moved from 21 October - 7 November to 15 - 30 November. The objective of this change was to harvest more cows, especially those migrating into GMU 69 from GMU 66A. The hunt was successful in harvesting more cows but brought about some unethical hunter behavior. The later season, combined with some very unusual early storms and a lack of hunting pressure in late October and early November, brought large herds of elk onto winter range before the hunt opened. This left elk vulnerable and some hunters acted inappropriately. The hunt was successful at harvesting more elk, but even with the larger harvest, the herd was still estimated to be 5,200 animals in a post-hunt aerial survey. In 2005, the hunt was changed back to a 21 October opener but still remained open until 30 November.

Domestic elk operations in this zone present a significant risk to wild elk herds. Many of these operations are shooter bull-based, with large pens in occupied elk range. This provides significant opportunity for domestic elk to contact wild elk through the fence or by escape. This situation creates a risk of disease transmission and genetic introgression.

Inter-specific Issues

The Tex Creek Zone supports an important mule deer population. During the winter of 1992-1993, this deer population sustained significant mortality and did not recover as hoped. During the winters of 2005-2006 and 2007-2008, this population, along with other eastern Idaho mule deer populations, again sustained significant fawn mortality due to severe and extended winter conditions. The area also supports a strong moose population and is grazed extensively by domestic livestock. In the past, mule deer and elk appeared to be spatially separated on winter range and there were no known conflicts between elk and moose; however, relationships among these species were not monitored or well understood. A graduate student research project was initiated in 2005 to explore elk and mule deer competition in the Willow Creek Canyon complex (Atwood 2009). This study found that elk and mule deer tended to spatial segregate during mild winters, but that elk moved down onto traditional mule deer winter ranges during severe winters. Although elk ranges during the severe winter entirely encompassed the deer winter range, the winter diets of the species remained fairly segregated, suggesting minimal dietary competition.

Predation Issues

Black bear densities appear to be low and stable in this zone. Mountain lions are common. Coyotes are also common, especially on the winter range, but are not known to have much impact on elk populations. Wolves introduced by USFWS in 1995 have moved through the area, which could affect elk. The one established pack in this Zone (Fall Creek) was removed by USDA-Wildlife Services in the summer of 2009 due to repetitive livestock depredations. There are currently no documented wolf packs in this Zone, although several unverified reports have been filed with the Department about 1-2 wolves in GMUs 66 and 69.

Winter Feeding Issues

Elk are not fed in this zone except on an emergency basis, which occurred during the winters of 1988-1989, 1992-1993, and 2003-2004. Because of the zone's proximity to known brucellosis-infected herds in Wyoming and Idaho, it is extremely critical that feeding on anything less than a genuine emergency basis should be avoided. Large round bales of grass-alfalfa hay have been left in the field on Tex Creek WMA periodically to attract elk to the area and hold them on that winter range.

During winter 2003-2004, approximately 2,000 elk crossed Willow Creek and many were very close to Iona Hill. After a few elk were killed on the railroad tracks close to Iona, the Department decided to drive the elk back to Tex Creek WMA and bait them there with hay to keep them away from town and potential trouble. The operation required two driving operations and feeding ~76 tons of hay to over 1,400 elk. The elk were successfully held until the end of winter.

During the winter of 2007-2008, significant snow pack and extended winter conditions caused approximately 300 elk to move down along the Highway 26 corridor south of Ririe, creating human safety concerns along the roadway. An additional 80 elk moved down along roadways in east Ammon. On numerous occasions Department personnel used snow machines to push these elk groups to the south and east away from roadways. During the winter of 2008-2009, approximately 400 elk moved down near Highway 26 south of Ririe. On one occasion, Department personnel used snowmobiles to push these elk south and east away from the highway.

Information Requirements

In 1978, 1979, and 1980, the Department conducted radio-telemetry studies of elk wintering on Tex Creek WMA, the results of which indicated these elk summered primarily in GMUs 66 and 66A with some summering in GMUs 69 and 76. This work was duplicated in 1998-1999 and 2005-2009 with results showing similar trends in distribution and movement. All data on the movements and distribution of Tex Creek Zone elk should be fully analyzed, along with the movements and distribution of Diamond Creek Zone (GMUs 66A and 76) elk, to re-evaluate the management strategy for these intertwined populations.

Literature Cited

Atwood, M. P. 2009. Interactions between mule deer and elk on winter range at the Tex Creek Wildlife Management Area, Idaho. Thesis, Idaho State University, Pocatello, USA.

Russell, O. 1914. Journal of a Trapper, 1834-1843. Syms-York, Boise, Idaho.

Elk
Tex Creek Zone (GMUs 66, 69)

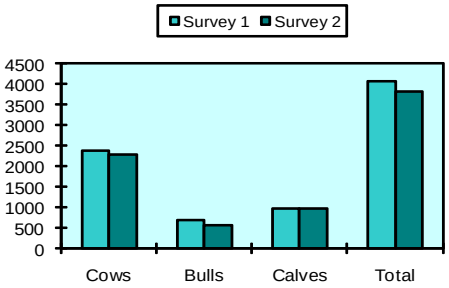
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
66/69	2010	2277	577	325	2000 - 3000	425 - 625	250 - 350
Zone Total		**2277**	**577**	**325**	**2000 - 3000**	**425 - 625**	**250 - 350**
Bulls per 100 Cows			**25**	**14**		**18 - 24**	**10 - 14**

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
66/69	2007	2373	700	964	4066	2010	2277	577	974	3831
Comparable Surveys Total		**2373**	**700**	**964**	**4066**		**2277**	**577**	**974**	**3831**
Per 100 Cows			**29**	**41**				**25**	**43**	

Comparable Survey Totals

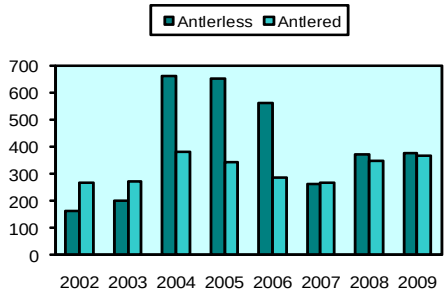


Zone Harvest Statistics

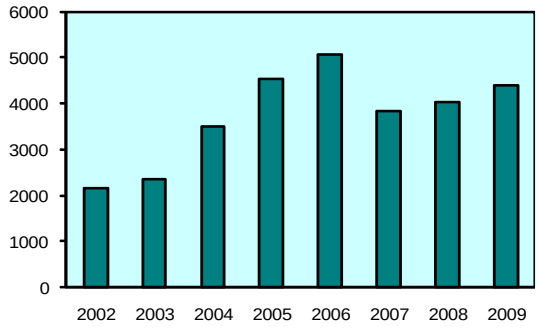
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	164	202	661	649	558	261	369	374
'A' Tag	143	188	634	506	397	257	348	366
'B' Tag	2	3	19	4	2	1	1	0
CH Tag	19	11	8	139	159	3	20	8
Antlered Harvest	265	272	380	342	285	268	345	364
'A' Tag	49	48	98	59	72	62	65	93
'B' Tag	216	224	281	266	196	202	228	247
CH Tag	0	0	1	17	17	4	52	24
Hunter Numbers	2168	2346	3505	4533	5067	3836	4019	4402
'A' Tag	1149	1235	2173	3026	3409	2672	2617	3043
'B' Tag	977	1072	1292	1211	979	1120	1115	1123
CH Tag	42	39	40	296	679	44	287	236
% 6+ Points	21	30	26	28	26	25	34	38

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

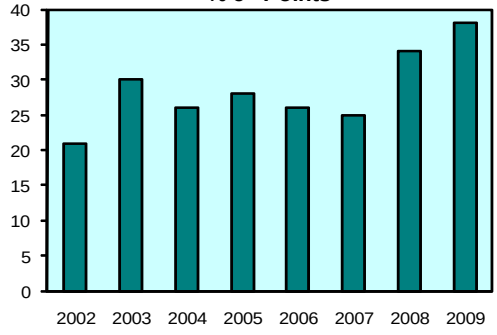


Figure 27. Tex Creek Zone elk status and objectives.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Elk Surveys and Inventories
PROJECT:	W-170-R-34		
SUBPROJECT:	7	**STUDY NAME:**	Big Game Population Status,
STUDY:	I		Trends, Use, and Associated
JOB:	1		Habitat Studies

PERIOD COVERED: July 1, 2009 to June 30, 2010

SALMON REGION

Salmon Zone (GMUs 21, 21A, 28, 36B)

Management Objectives

Objectives for Salmon Zone (Fig 28) are to stabilize the cow elk populations in GMUs 28 and 21A at current levels and increase cows in GMUs 21 and 36B. Objectives are to increase the bull population across all of the Salmon Zone. To stimulate and maintain herd productivity, balance depredation concerns with a reasonably large elk population, and minimize potential impacts on mule deer, a five-year period of herd reduction totaling about 33% of previous numbers was accomplished in GMU 21 in the late 1990s. Antlerless harvest was increased beginning in 2005, but then reduced in all GMUs for 2008 seasons because of a significant reduction in elk numbers across the zone. A quota was established for Salmon Zone B-tags because the 2010 survey showed continued decline in cow and bull numbers. Salmon Zone will continue to be managed to produce general hunting opportunity and 10-14 mature bulls:100 cows postseason.

Historical Perspective

Although present from the time of the first white explorers and trappers, elk were in low abundance in Salmon Zone through much of the twentieth century. From 1917 until the 1940s, parts of GMUs 28 and 36B were designated as no hunting "game preserves." Sixty-two elk from Yellowstone Park were released in Panther Creek drainage (GMU 28) in 1937. As has occurred over much of the west, elk herds have expanded dramatically since the mid-1970s. Today, Salmon Zone winters approximately 7,700 elk. Aggressive antlerless harvest from 1992 to the late 1990s stabilized and reduced rapidly growing herds in GMUs 21 and 21A, and may have reduced growth rates in the other two GMUs. Declining calf recruitment and bull:cow ratios in recent years suggest that elk herds may have reached undesirable densities that contributed to declining populations.

About 3,000 people have participated in rifle hunts and 300 in archery hunts (Appendix A) in Salmon Zone in recent years, harvesting approximately 100-400 cows and 500-700 bulls annually.

Habitat Issues

Cattle ranching, livestock grazing, mining, timber harvest, and recreation are the dominant human uses of the landscape in Salmon Zone. Elk depredations on agricultural crops are localized, but are especially pronounced in dry years.

In some areas of Salmon Zone, elk winter in mature stands of mountain mahogany that appear relatively stagnant and unproductive. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds such as knapweed and rush skeleton weed could ultimately have significant impacts on winter range productivity.

A large-scale forest fire occurred in the western portion of GMU 28 in 2000. Fires removed forest canopy in large tracts, creating conditions for increased elk forage production.

Biological Issues

Aerial surveys in 1992 and 1994 found exceptionally high winter elk densities in GMU 21A, a migratory herd shared by Idaho and Montana. Winter range concerns in Idaho and depredation concerns in Montana prompted significant increases in antlerless hunting in both states with a goal of reducing the herd to 2,000-2,500 wintering elk. The average total antlerless harvest increased from about 100 animals to about 300 animals, and by 2000, the herd was reduced to approximately 1,800 animals. Similar reductions occurred in GMU 21; total winter elk numbers dropped to 1,550 during surveys in 2001. Antlerless elk harvest was discontinued in GMUs 21 and 21A in 2000. The population in GMU 21A dramatically increased by 2005, reaching 3,345 animals. Therefore, antlerless harvest was implemented in the 2005 season. However, by 2008 numbers fell again to the top of objective levels and antlerless harvest was reduced for 2008. GMU 21A continued to see a slight decline in the cow population and a drop of almost half of the bulls between 2008 and 2010. The cow population in GMU 21 decreased to numbers seen in the early 2000s and is currently the only unit in the Salmon Zone below the cow objective level, but bull numbers dropped by more than half between 2008 and 2010.

GMUs 28 and 36B experienced major population increases (57% and 30%, respectively) through the 1990s, despite modest increases in antlerless harvest. Antlerless harvest was reduced after 2000, particularly in GMU 28, in response to low calf:cow ratios. Total population in GMU 36B had been stable, but the sex ratio has become more skewed toward females. In contrast, cow numbers in GMU 28 reached record high numbers in 2005 and exceeded objectives by 1,000 animals. As a group, these GMUs were only moderately productive, averaging 30-35 calves:100 cows during the 1990s; production has declined and become erratic in recent years. Zone-wide, we observed 22 calves:100 cows in 2008. The decline in productivity in Salmon Zone as elk numbers increased is worrisome. Partly as a result of this modest productivity and partly because they are relatively accessible general hunt GMUs, GMUs 28 and 36B have weak bull:cow ratios (12-14 bulls per 100 cows). By 2008, numbers in GMU 36B fell 55% to below objective levels for both cows and bulls and levels in GMU 28 fell by 34%, prompting severe reductions in antlerless harvest. The 2010 survey revealed that GMU 36B cow population was within the bottom of the objective range and bull numbers had increased slightly, but remained

below the objective level. However, both the cow and bull population in GMU 28 continued to decline despite minimal antlerless harvest. Quotas were instated in 2010 for rifle bull tags in the Salmon Zone in order to decrease bull harvest and begin to bring the bull population back into management objective range.

Inter-specific Issues

This zone contains the majority of the most productive deer GMUs in Salmon Region; parts of GMUs 21, 21A, and 36B contain high densities of wintering deer. Current high elk densities may be having some impact on the area's capacity to produce deer. This may be particularly pronounced during severe winters when deep snow moves elk down onto deer winter ranges. Similar problems may also occur with bighorn sheep, but the amount of habitat overlap is much less.

Predation Issues

Black bear densities appear to be moderate in Salmon Zone. Mountain lion densities are at least moderate and may have declined in recent years. Coyotes are common, but not known to have much impact on elk populations. At least four packs of wolves reintroduced by USFWS have become established in GMU 28. Other packs are resident in GMUs 21A, 21, and 36B. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit elk herds to the extent that it keeps elk herds below habitat carrying capacity, where they can be more productive. However, excessive levels of predation can also suppress prey populations to undesirably low levels. At this point, it is unclear what the net impact of predation is with the new mix of large predators.

Winter Feeding Issues

Aside from an occasional small private feeding activity and a few elk fed incidental to the rare deer feeding operations, elk have not been deliberately fed recently in Salmon Zone.

Information Requirements

Impacts of elk on mule deer production and survival are suspected but unknown. The most productive elk herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest. Potential impact of the new mix of large predators is unknown.

Elk
Salmon Zone (GMUs 21, 21A, 28, 36B)

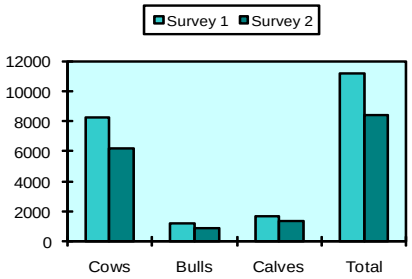
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
21	2008	1429	184	99	1200 - 1800	250 - 350	150 - 225
21A	2008	1854	345	181	1200 - 1800	250 - 350	150 - 225
28	2008	2219	297	202	1500 - 2300	325 - 475	175 - 275
36B	2008	680	58	30	700 - 1100	150 - 250	75 - 125
Zone Total		**6182**	**884**	**512**	**4600 - 7000**	**975 - 1425**	**550 - 850**
Bulls per 100 Cows			**14**	**8**		**18 - 24**	**10 - 14**

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
21	2005	1077	157	165	1399	2008	1429	184	240	1853
21A	2005	2279	394	625	3345	2008	1854	345	485	2684
28	2005	3327	525	663	4547	2008	2219	297	480	2996
36B	2005	1596	86	232	1914	2008	680	58	128	866
Comparable Surveys Total		**8279**	**1162**	**1685**	**11205**		**6182**	**884**	**1333**	**8399**
Per 100 Cows			**14**	**20**				**14**	**22**	

Comparable Survey Totals

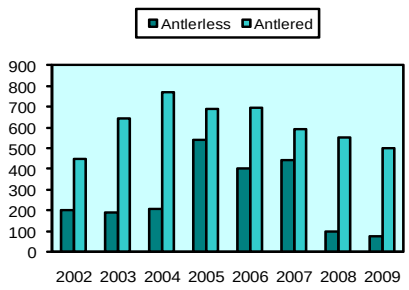


Zone Harvest Statistics

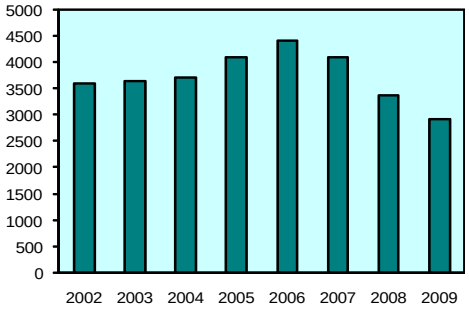
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	203	188	206	541	401	442	97	73
'A' Tag	41	47	36	97	93	104	64	62
'B' Tag	3	2	4	2	1	9	1	1
CH Tag	159	139	166	442	307	329	32	10
Antlered Harvest	450	643	769	691	698	594	554	499
'A' Tag	21	20	27	26	26	26	60	27
'B' Tag	415	613	725	647	659	555	489	471
CH Tag	14	10	17	18	13	13	5	1
Hunter Numbers	3580	3628	3699	4086	4397	4094	3375	2918
'A' Tag	315	323	340	381	452	532	430	387
'B' Tag	2832	2972	2986	2957	3302	2837	2876	2514
CH Tag	433	333	373	748	643	725	69	17
% 6+ Points	23	24	24	21	27	22	22	19

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

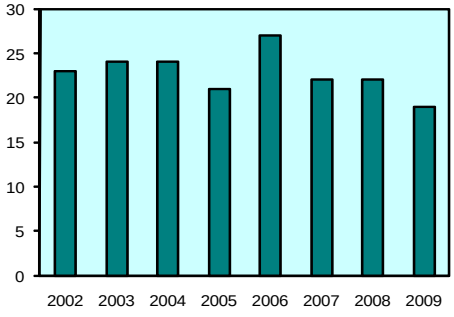


Figure 28. Salmon Zone elk status and objectives.

Lemhi Zone (GMUs 29, 37, 37A, 51)

Management Objectives

Objectives for Lemhi Zone (Fig 29) are to reduce the elk population to approximately 2,000 cows and 650 bulls. Harvest objectives designed to reduce elk numbers in Lemhi Zone through 2007 were moderately successful. The reduction was intended to stimulate and maintain herd productivity, balance depredation concerns with maintaining a reasonably large elk population, and minimize potential impacts on mule deer. Herds will be managed to maintain 10-14 mature bulls:100 cows in GMU 37, 14-18 mature bulls:100 cows in GMU 51, and 18-22 mature bulls:100 cows in GMUs 29 and 37A.

Historical Perspective

Elk abundance was low in Lemhi Zone through much of the twentieth century. Most of the zone has been managed for decades under very conservative controlled hunt strategies. In 1993, GMU 51 changed from general any-bull harvest to general hunting for spike bulls with controlled any-bull tags. As has occurred over much of the west, elk herds have expanded dramatically from the mid-1970s through the 1990s. Today, Lemhi Zone winters approximately 4,800 elk, a reduction of 1,800 from recent highs but still 800 more than during the mid 1990s.

About 1,400 people each year participated in rifle hunts in Lemhi Zone through the late 1990s. However, with increases in controlled and general antlerless elk opportunities, hunter numbers have increased to approximately 3,000 per year. Conservative bull harvest management has produced exceptional bull:cow ratios and a reputation for large mature bulls. Controlled bull hunts in this zone have become very desirable; rifle tags are much in demand and difficult to draw. The area's reputation for many mature bulls has also made this zone a very attractive archery hunt; up to approximately 1,300 people have participated in recent years, 40-50% of them in GMU 29 alone.

Habitat Issues

Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape in Lemhi Zone. The zone is in a generally arid region where forage production can be strongly influenced by growing season precipitation. During drought years, high elevation mesic habitats are more heavily utilized by elk, while low elevation riparian areas and wet meadows are more heavily utilized by cattle. Elk depredations on agricultural crops are common and are especially pronounced in dry years. Expanded irrigated agriculture, passage of legislation authorizing depredation payments, and legislation authorizing depredation hunts combined with increasing elk populations have led to more depredation complaints in GMU 51.

In some areas of Lemhi Zone, elk winter in mature stands of mountain mahogany which appear relatively stagnant and unproductive. In other areas, elk winter on open sagebrush-grassland ridgetops. Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Biological Issues

In 1992, GMUs 29 and 37A contained strongly-performing elk populations; a base of 1,200 cows was producing 600 calves and 600 bulls. By 1998 and into 2003, the herd had increased to over 1,700 cows, but was still only producing 600 calves. This loss in productivity may be related to higher-than-desirable elk densities. Through intensive antlerless harvest, the herd in GMU 37 was significantly reduced. Although herd size is still over objective levels, harvest was reduced beginning in 2003 as the herd neared desired levels.

Inter-specific Issues

Although historically Lemhi Zone supported high deer densities, the zone currently has relatively modest deer populations. Current high elk densities may be having some impact on deer productivity.

When elk numbers are high, as they are currently, livestock operators often perceive elk to be strong competitors for range forage. However, elk generally remove a minor portion of forage compared to livestock.

Predation Issues

Black bear densities appear to be low and stable in Lemhi Zone. Mountain lion densities are low to moderate and appear to have increased in recent years in GMUs 29, 37, and 37A, probably partly due to increased elk densities. Coyotes are common, but not known to have much impact on elk populations.

Winter Feeding Issues

Because this is an arid area with relatively little snowfall, winter feeding has not occurred recently in Lemhi Zone.

Information Requirements

Impacts of elk on mule deer production and survival are suspected but unknown. The most productive elk herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest. Better information on elk migration patterns is also needed.

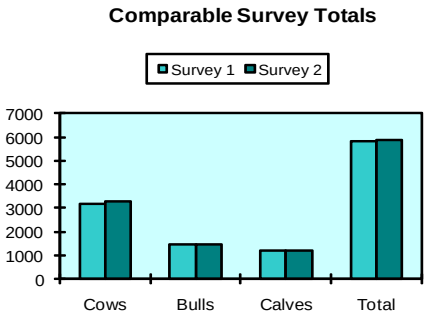
Elk
Lemhi Zone (GMUs 29, 37, 37A, 51)

Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
29/37A	2007	1834	614	119	1000 - 1600	300 - 500	200 - 300
37	2007	691	349	106	150 - 250	30 - 50	20 - 30
51	2003	737	479	109	500 - 700	125 - 200	75 - 125
Zone Total		**3262**	**1442**	**334**	**1650 - 2550**	**455 - 750**	**295 - 455**
Bulls per 100 Cows			**44**	**10**		**30 - 35**	**14 - 18**

Population Surveys

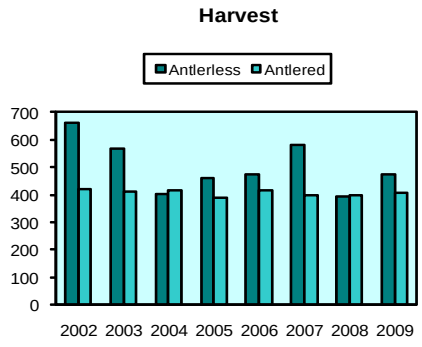
	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
29/37A	2003	1703	805	618	3126	2007	1834	614	630	3078
37	2003	395	83	100	578	2007	691	349	290	1330
51	1999	1078	580	470	2128	2003	737	479	281	1497
Comparable Surveys Total		**3176**	**1468**	**1188**	**5832**		**3262**	**1442**	**1201**	**5905**
Per 100 Cows			**46**	**37**				**44**	**37**	

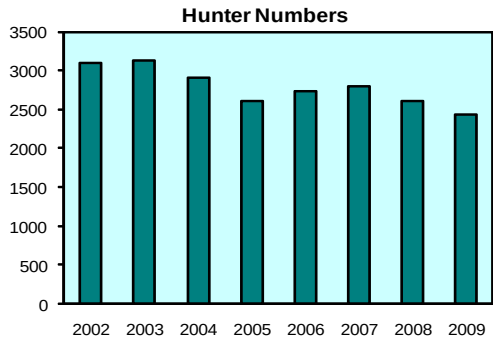


Zone Harvest Statistics

	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	662	567	402	461	473	580	394	472
'A' Tag	206	234	112	125	149	208	82	125
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	456	333	290	336	324	372	312	347
Antlered Harvest	422	412	417	389	416	397	397	408
'A' Tag	133	122	176	126	149	119	149	125
'B' Tag	0	6	0	0	0	0	0	0
CH Tag	289	284	241	263	267	278	248	283
Hunter Numbers	3099	3125	2904	2607	2734	2796	2610	2430
'A' Tag	1380	1492	1296	1135	1329	1230	1162	1043
'B' Tag	23	28	0	0	0	0	0	0
CH Tag	1696	1605	1608	1472	1405	1566	1448	1387
% 6+ Points	47	42	44	46	33	43	35	38

Note: % 6+ pts does not include spike-only harvest. ND = no data available.





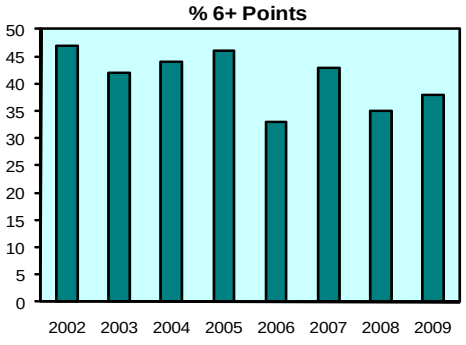


Figure 29. Lemhi Zone elk status and objectives.

Beaverhead Zone (GMUs 30, 30A, 58, 59, 59A)

Management Objectives

Objectives for Beaverhead Zone (Fig 30) are to maintain GMUs 58, 59, and 59A at current herd levels (about 1,300 cows and 350 bulls) and to maintain elk densities in GMUs 30 and 30A at approximately 1,250 cows and 325 bulls. Herds will be managed to maintain 14-18 mature bulls:100 cows in GMUs 58, 59, and 59A and 18-24 mature bulls:100 cows in GMUs 30 and 30A. To maintain herd productivity, balance depredation concerns with maintaining a reasonably large elk population, and minimize potential impacts on mule deer, a five-year period of herd reduction totaling about 40% was recommended in GMUs 30 and 30A during the late 1990s. Surveys in 2004 indicated populations are at or slightly below objective levels. Accordingly, cow harvest was reduced to maintain relatively high productivity and stabilize herd size.

Historical Perspective

Elk abundance was low in Beaverhead Zone through much of the twentieth century. In fact, elk numbers were apparently low enough that a few elk from Horse Prairie and Yellowstone National Park were translocated to GMUs 30 and 30A around 1918. GMUs 30 and 30A were closed to hunting through the 1940s, managed as general hunts during the 1950s, and changed to general hunts with harvest quotas in the 1960s. Since 1970, GMUs 30 and 30A have been managed under very conservative controlled hunt strategies. Controlled antlerless hunts were initiated in GMUs 59 and 59A in 1979 and in GMU 58 in 1988. In 1991, GMUs 58, 59, and 59A changed from general any-bull management to general hunting for spike bulls with controlled any-bull tags. As has occurred over much of the west, elk herds have expanded dramatically since the mid-1970s. Today, Beaverhead Zone winters approximately 4,000 elk and supports 1,800-2,000 hunters annually.

Many elk in this zone, particularly in GMUs 30 and 30A, spend winter in Idaho and migrate to summer ranges in Montana. Traditionally, elk in GMUs 58, 59, and 59A summered in Idaho and wintered in Montana; however, since the early half of the 1980s, more elk are wintering in Idaho. In recent years, high elk densities have become a controversial issue with landowners and livestock grazers in both states.

Habitat Issues

Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape in Beaverhead Zone. The zone is in a generally arid region where forage production can be strongly influenced by growing season precipitation. During drought years, high elevation mesic habitats are more heavily utilized by elk while low elevation riparian areas and wet meadows are more heavily utilized by cattle. Elk depredations on agricultural crops are common and are especially pronounced in dry years in GMUs 30, 30A, and along Medicine Lodge Creek.

Forests are slowly encroaching into shrub and grassland communities. Spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range

productivity. Elk wintering on windswept ridgetops in GMUs 59 and 59A are periodically subject to *Oxytropis* poisoning.

Biological Issues

The elk population in GMU 30 experienced very high growth rates through the mid-1990s, despite attempts to increase antlerless harvest and considerable depredation hunt activity. GMUs 30A, 58, 59, and 59A show relatively stable populations. Calf production and bull:cow ratios are showing signs of decline in this zone.

Inter-specific Issues

Although historically Beaverhead Zone supported high mule deer densities, the zone currently has relatively moderate deer populations. Current high elk densities may be having some impact on deer populations and/or winter range.

When elk numbers are high, as they are currently, livestock operators often perceive elk to be strong competitors for range forage. However, elk generally remove a minor portion of the forage compared to livestock. During some winters, elk move into GMU 63 and cause haystack depredations in the Monteview, Cedar Butte, and Beaver Creek areas.

Predation Issues

Black bear densities appear to be low and stable in Beaverhead Zone. Mountain lion densities are low to moderate and appear to have increased in recent years in GMUs 30 and 30A, probably partly due to increased elk densities. Coyotes are common, but not known to have much impact on elk populations.

Winter Feeding Issues

Because this is an arid area with relatively little snowfall, winter feeding has not occurred recently in Beaverhead Zone.

Information Requirements

Impacts of elk on mule deer production and survival are suspected but unknown. The most productive elk herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate elk densities that will maintain optimum productivity and harvest.

Elk
Beaverhead Zone (GMUs 30, 30A, 58, 59, 59A)

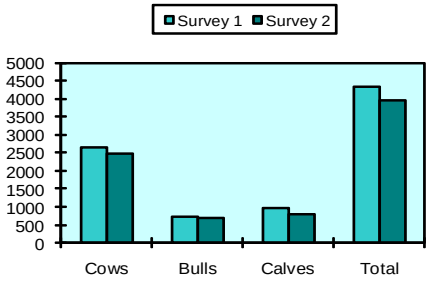
Winter Status & Objectives

	Current Status				Objective		
Unit	Survey Year	Cows	Bulls	Adult Bulls	Cows	Bulls	Adult Bulls
30	2004	1272	381	280	800 - 1200	250 - 350	150 - 250
30A	2004	178	122	88	200 - 300	40 - 60	25 - 35
58	2005	676	130	70	400 - 600	100 - 175	50 - 100
59/59A	2005	341	73	41	650 - 950	150 - 250	100 - 150
Zone Total		**2467**	**706**	**479**	**2050 - 3050**	**540 - 835**	**325 - 535**
Bulls per 100 Cows			**29**	**19**		**25 - 29**	**14 - 18**

Population Surveys

	Survey 1					Survey 2				
Unit	Year	Cows	Bulls	Calves	Total	Year	Cows	Bulls	Calves	Total
30	2001	1103	304	338	1745	2004	1272	381	413	2066
30A	2001	188	33	65	286	2004	178	122	61	361
58	2000	769	185	316	1270	2005	676	130	200	1006
59/59A	2000	577	205	254	1036	2005	341	73	123	537
Comparable Surveys Total		**2637**	**727**	**973**	**4337**		**2467**	**706**	**797**	**3970**
Per 100 Cows			**28**	**37**				**29**	**32**	

Comparable Survey Totals

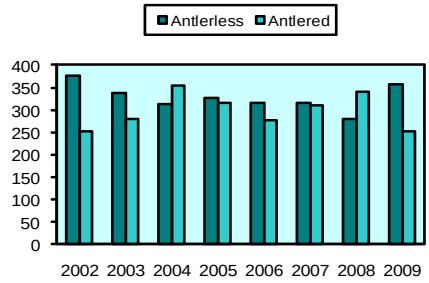


Zone Harvest Statistics

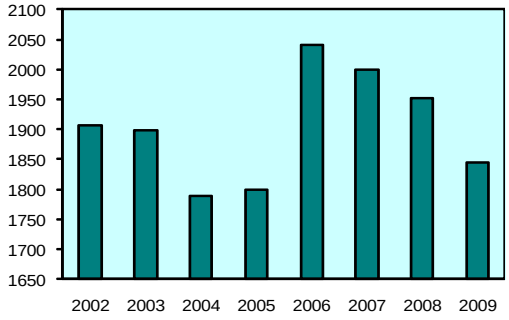
	2002	2003	2004	2005	2006	2007	2008	2009
Antlerless Harvest	376	339	313	327	317	316	280	358
'A' Tag	79	66	48	72	82	103	82	152
'B' Tag	0	0	0	0	0	0	0	0
CH Tag	297	273	265	255	235	213	198	206
Antlered Harvest	252	279	354	315	276	310	341	253
'A' Tag	102	117	208	154	166	177	233	119
'B' Tag	0	2	0	0	0	0	0	0
CH Tag	150	160	146	161	110	133	108	134
Hunter Numbers	1906	1899	1788	1799	2041	1999	1952	1845
'A' Tag	893	906	964	1020	1357	1300	1308	1123
'B' Tag	13	13	0	0	0	0	0	0
CH Tag	1000	980	824	779	684	699	644	722
% 6+ Points	35	37	31	40	26	26	42	38

Note: % 6+ pts does not include spike-only harvest. ND = no data available.

Harvest



Hunter Numbers



% 6+ Points

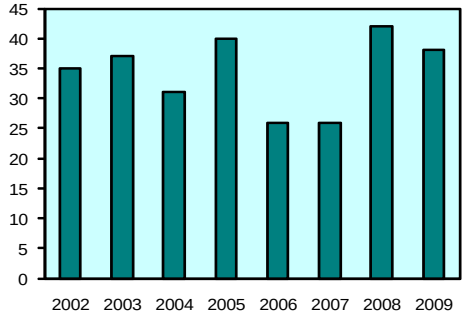


Figure 30. Beaverhead Zone elk status and objectives.

APPENDIX A

IDAHO

2009 SEASON

ELK RULES

IDAHO
BIG GAME
SEASONS AND RULES
2009

Idaho Fish and Game photo

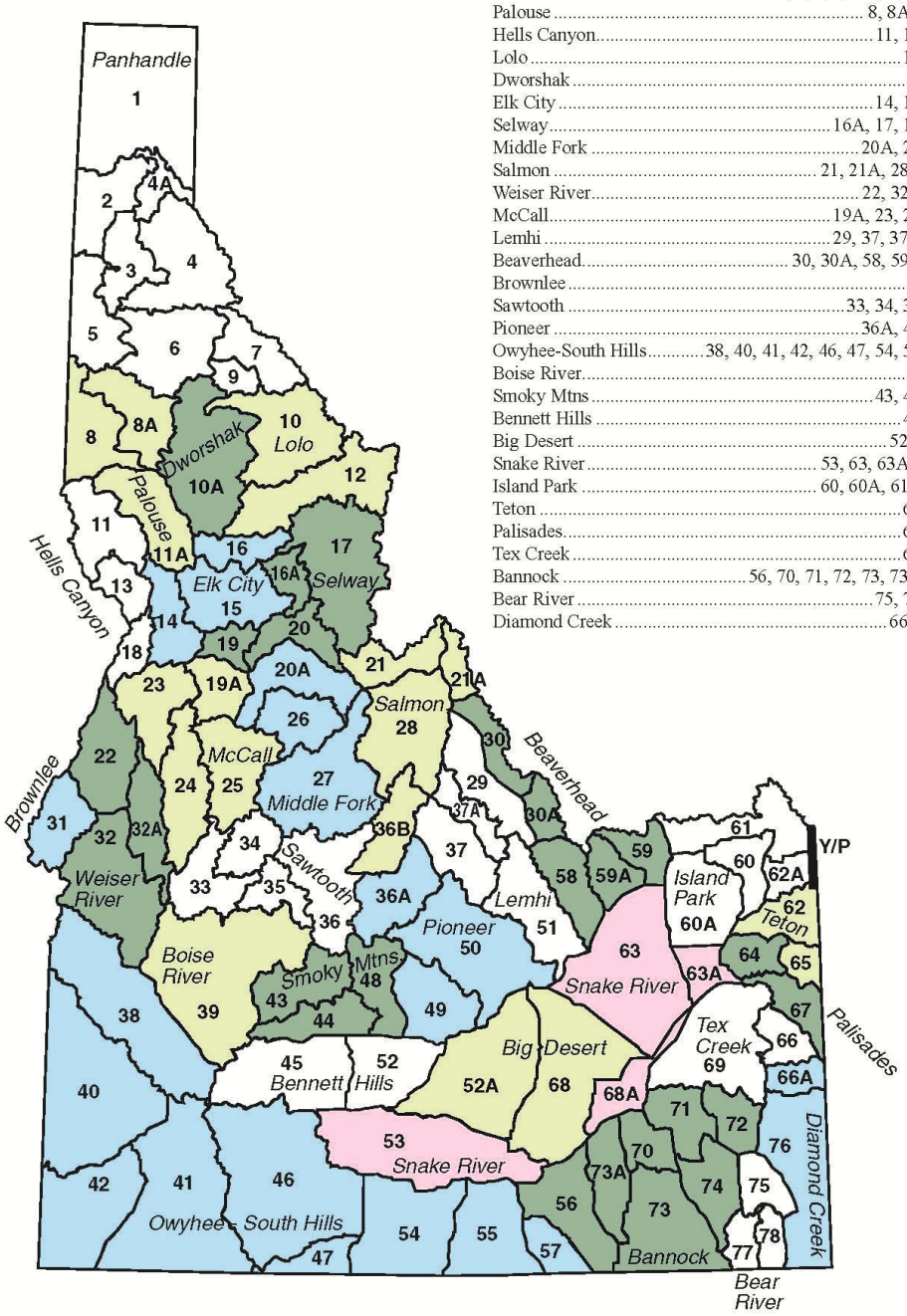
Deer, Elk, Pronghorn
August 2009 - January 2010

Black Bear, Mountain Lion
August 2009 - July 2010

Including Controlled Hunts for
Deer, Elk, Pronghorn, and Black Bear

Elk Management Zones

Zone Name	Units	Rules Book Page Number
Panhandle	1, 2, 3, 4, 4A, 5, 6, 7, 9	28
Palouse	8, 8A, 11A	28
Hells Canyon	11, 13, 18	28
Lolo	10, 12	29
Dworshak	10A	29
Elk City	14, 15, 16	29
Selway	16A, 17, 19, 20	30
Middle Fork	20A, 26, 27	30
Salmon	21, 21A, 28, 36B	30
Weiser River	22, 32, 32A	31
McCall	19A, 23, 24, 25	32
Lemhi	29, 37, 37A, 51	33
Beaverhead	30, 30A, 58, 59, 59A	33
Brownlee	31	33
Sawtooth	33, 34, 35, 36	34
Pioneer	36A, 49, 50	34
Owyhee-South Hills	38, 40, 41, 42, 46, 47, 54, 55, 57	34
Boise River	39	35
Smoky Mtns	43, 44, 48	35
Bennett Hills	45, 52	35
Big Desert	52A, 68	35
Snake River	53, 63, 63A, 68A	36
Island Park	60, 60A, 61, 62A	36
Teton	62, 65	36
Palisades	64, 67	36
Tex Creek	66, 69	37
Bannock	56, 70, 71, 72, 73, 73A, 74	37
Bear River	75, 77, 78	37
Diamond Creek	66A, 76	38



ELK

2009 Elk Hunting Seasons

Elk hunting in Idaho is managed in 29 elk zones. In addition, Fish and Game has established a 2-tag system as an effort to offer elk hunters the most general season choices. Hunters may select 1 zone and choose either an "A tag" or a "B tag" in most elk zones.

In general, A tags provide more opportunity for muzzleloader and archery hunters, and B tags provide more opportunity for centerfire rifle hunters.

Controlled hunts, allocated by random drawing, also are available in most of the state.

Any person who receives a controlled hunt permit for elk is prohibited from hunting in any other elk hunt – archery, muzzleloader or general, **except** for depredation hunts, extra antlerless elk hunts or by buying a leftover nonresident elk tag, if available.

Note: Residents or nonresidents may buy 1 unsold nonresident general season deer and elk tag at the nonresident price starting August 28, to be used as a second tag.

Antlered elk: Only elk with at least 1 antler longer than 6 inches may be taken in any season which is open for antlered elk only. In antlered seasons, including spike-only, antlers must accompany the carcass while in transit.

Antlerless elk: Only elk without antlers or with antlers shorter than 6 inches may be taken in any season which is open for antlerless elk only.

Spike elk: Only elk with no branching on either antler and at least 1 antler longer than 6 inches may be taken in any season which is open for spike elk only. A branch is an antler projection at least 1 inch long and longer than the width of the projection.

Brow-tined elk: Only elk having at least 1 antler with a visible point on the lower half of the main beam which is 4 inches or greater in length may be taken in any season open for brow-tine elk only.

Archery & Muzzleloader Permits

Any person hunting in an archery-only season must have their license with archery permit validation. In a muzzleloader-only season hunters must have a muzzleloader permit validation - including controlled hunts.

Legal in spike elk hunts

Spike Elk

One antler must be at least 6 inches or longer. (Not legal in brow-tined elk hunts.)

Not legal in spike elk hunts or brow-tined elk hunts

Branch antlered bull (or larger)

Not legal for spike-only hunts if branched point is longer than 1 inch.

Antler branch is a projection 1 inch or more in length.

Legal in brow-tined elk hunts

Caution - Archers: "Any weapon" antlerless elk hunts will be open, on or within 1 mile of private fields on which cultivated crops are currently growing, in all or parts of the following zones: Palouse, Pioneer, Beaverhead, Salmon, Lemhi, McCall and Weiser. Additionally, an any-weapon controlled hunt occurs from August 9 - September 15 in a portion of Unit 48 (see Hunt No. 2093). Please use appropriate caution.

ELK

ELK

Panhandle Zone (Units 1, 2, 3, 4, 4A, 5, 6, 7, 9)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Sep 6 - Sep 19 Antlered elk **only** Sep 20 - Sep 30	**Any weapon** — antlered **only** Oct 25 - Oct 29	**Muzzleloader only** — antlered **only** Units 4, 7, 9 **only** Nov 20 - Dec 1	**Archery only** Units 1, 2, 3, 4A, 5, 6 — any elk Units 4, 7, 9 — antlered **only** Dec 10 - Dec 16
B Tag	**Archery only** — any elk Sep 6 - Sep 12	**Any weapon** — antlered **only** Oct 10 - Oct 24 Any elk Oct 15 - Oct 17		**Muzzleloader only** — spike **only** Dec 2 - Dec 9

Palouse Zone (Units 8, 8A, 11A)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 **See archers caution pg 27.** **Any weapon** – antlerless **only** Near cultivated fields outside National Forest System Boundary. See Note 2, Page 38. Aug 1 - Sep 15			**Muzzleloader only** — spike or antlerless Unit 8A **only**: Dec 2 - Dec 9 See Note 1, Page 38.
B Tag	**Archery only** — spike or antlerless Aug 30 - Sep 14	**Any weapon** — antlered **only** Oct 10 - Oct 24		

Hells Canyon Zone (Units 11, 13, 18) — Controlled Hunts Only.

Lolo Zone (Units 10, 12)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — antlered **only** Aug 30 - Sep 30			
B Tag		**Any weapon** — antlered **only** Oct 10 - Nov 3		
	NOTE: 1,600 B Tag Quota Available on First-Come, First-Served Basis			
NOTE: Reductions in hunting opportunity may be implemented in 2010.				

Dworshak Zone (Unit 10A)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30			**Muzzleloader only**— spike or antlerless Dec 2 - Dec 5 Spike **only**: Dec 6 - Dec 14
B Tag	**Archery only** — spike or antlerless Aug 30 - Sep 14	**Any weapon** — antlered **only** Oct 10 - Nov 3		
	NOTE: 2,380 B Tag Quota Available on First-Come, First-Served Basis			

Elk City Zone (Units 14, 15, 16)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Unit 15 **only** Aug 30 - Sep 30		**Muzzleloader only**— spike or antlerless Unit 14 & 16 **only**, Nov 21 - Dec 9	**Archery only** — any elk Unit 15 **only** Dec 5 - Dec 20
B Tag	**Archery only** — spike or antlerless Unit 15 **only** Aug 30 - Sep 14	**Any weapon** — antlered **only** Units 15, 16: Oct 10 - Nov 3 Unit 14: Oct 10 - Oct 24		
	Note: 1,790 B Tag Quota Available on First-Come, First-Served Basis			

ELK

Selway Zone (Units 16A, 17, 19, 20)				
	September	**October**	**November**	**December**
A Tag		**Any weapon** — antlered **only** Oct 1 - Oct 31		
	Note: 647 A Tag Quota Available on First-Come, First-Served Basis			
B Tag	**Any weapon** — antlered **only** Sep 15 - Sep 30		**Any weapon** — antlered **only** Nov 1 - Nov 11	
	Note: 1,067 B Tag Quota Available on First-Come, First-Served Basis			

Middle Fork Zone (Units 20A, 26, 27)				
	August/September	**October**	**November**	**December**
A Tag		**Any weapon** — Oct 1 - Oct 31 Units 20A, 26 - any elk Unit 27 - antlerless or brow-tined bulls **only**		
	Note: 1,551 A Tag Quota Available On First-Come, First-Served Basis			
B Tag	**Any weapon** — Sep 15 - Sep 30 Units 20A, 26 - antlered **only** Unit 27 - brow-tined bulls **only**		**Any weapon** — Nov 1 - Nov 18 Units 20A, 26 - antlered **only** Unit 27 - brow-tined bulls **only**	
	Note: 1,636 B Tag Quota Available on First-Come, First-Served Basis			

Salmon Zone (Units 21, 21A, 28, 36B)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 Units 21, 21A, 36B **only** See archers caution pg 27.		**Muzzleloader only** — antlerless **only** Unit 21A **only** Nov 10 - Nov 30	**Archery only** — any elk Unit 28 **only** Dec 1 - Dec 31
	Any weapon - antlerless **only** Aug 1 - Sep 30 Near cultivated fields outside National Forest System Boundary in Units 21A & 28 **only** See Note 2, Page 38.			
B Tag	**Archery only** — antlerless **only** Aug 30 - Sep 14 Unit 21A **only**	**Any weapon** — antlered **only** Oct 15 - Nov 8		
NOTE: Reductions in hunting opportunity may be implemented in 2010.				

<table>
<tr><th colspan="5">Weiser River Zone (Units 22, 32, 32A)</th></tr>
<tr><th></th><th>August/September</th><th>October</th><th>November</th><th>December</th></tr>
<tr><td rowspan="3">A Tag</td><td>Archery only — any elk
Aug 30 - Sep 30
See Note A below.
Motorized Vehicle Restriction
Units 32, 32A, See Note 2,
Page 44.</td><td colspan="3"></td></tr>
<tr><td>Any weapon — anterless only
Unit 22 ONLY: Aug 15 - Sep 30
Outside National Forest System
Boundary only,
See Note C below,
Extremely Limited Access</td><td colspan="3"></td></tr>
<tr><td colspan="3">Any weapon — anterless only
Unit 32 ONLY: Aug 1 - Nov 30
Please obtain permission to hunt private land before buying this tag!
See Note B below,
Extremely Limited Access.
Motorized Vehicle Restriction
See Note 2, Page 44.</td><td></td></tr>
<tr><td>B Tag</td><td></td><td colspan="2">Any weapon — antlered only
Oct 25 - Nov 3
Motorized Vehicle Restriction Units 32, 32A, See Note 2, Page 44.</td><td></td></tr>
</table>

Note A - Closed area: That portion of Unit 32 west of the following boundary: Begining at the Unit 32/38 boundary at Emmett, then north on Highway 52 to the Van Dussen Road, then north on the Four Mile Road to the Unit 32/32A boundary is **closed**.

Note B - Open area: That portion of Unit 32 west of the following boundary: Beginning at the Unit 32/38 boundary at Emmett, then north on Highway 52 to the Van Dussen Road, then north on the Four Mile Road to the Unit 32/32A boundary. Most elk are on private property in this area.

Note C - Open area: That portion of Unit 22 that lies outside National Forest System Boundary and drains into the Weiser River, upstream from and including the Hornet Creek drainage and downstream from and including the West Fork Weiser River drainage. Most elk are on private property in this area. The National Forest System Boundary is a legislatively set boundary - it is not necessarily the boundary of Forest Service property. State, private, and other lands within the National Forest System Boundary are not open to hunting during this season. (Please refer to a U.S. Forest Service map for the location of this boundary.)

ELK

McCall Zone (Units 19A, 23, 24, 25)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30	**Any weapon** — spike **only** Short range weapons **only** within described boundaries in Unit 24, see Note A below. Oct 5 - Oct 14	**Muzzleloader only** — antlerless **only** Units 19A, 23, 24 **only** Nov 10 - Nov 30	
	Short range weapons only — antlerless **only** Units 23 & 24 **only** Outside National Forest System Boundary, see Note B below. Aug 15 - Sep 30			
B Tag		**Any weapon** — antlered **only** Oct 15 - Nov 3 Short range weapons **only** within described boundaries, see Note A below.		

Note A - Short range weapons **only** in that portion of Unit 24 within the following boundary: Beginning in McCall at the junction of State Highway 55 and Boydstun Street, then south on Boydstun Street to West Valley Road, then west and south along West Valley Road and West Mountain Road to Cabarton Road, then north on Cabarton Road to State Highway 55, then north on State Highway 55 to Farm-To-Market Road, then north on Farm-To-Market Road to Elo Road, then west on Elo Road to State Highway 55, then north on State Highway 55 to the point of beginning.

Note B - You may hunt only outside the National Forest System Boundary. The National Forest System Boundary is a legislatively set boundary - it is not necessarily the boundary of Forest Service property. State, private, and other lands within the National Forest System Boundary are not open to hunting during this season. (Please refer to a U.S. Forest Service map for the location of this boundary)

Lemhi Zone (Units 29, 37, 37A, 51)				
	September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 See archers caution pg 27. Motorized Vehicle Restriction See Note 2, Page 44.		**Muzzleloader only** — anterless **only** Nov 25 - Dec 9 Motorized Vehicle Restriction, See Note 2, Page 44.	
	Any weapon — antlerless **only** Near cultivated fields outside National Forest System Boundary. See Note 2, Page 38. Unit 29 **only**: Aug 1 - Sep 15 Motorized Vehicle Restriction See Note 2, Page 44.		**Any weapon** — spike **only** Nov 1 - Nov 7 Units 37, 51 **only** Motorized Vehicle Restriction See Note 2, Page 44.	
No B Tags in this Zone — See Controlled Hunts				

Beaverhead Zone (Units 30, 30A, 58, 59, 59A)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 See archers caution pg 27. Motorized Vehicle Restriction See Note 2, Page 44.	**Muzzleloader only** — antlerless **only** Oct 15 - Oct 31 Motorized Vehicle Restriction See Note 2, Page 44.		
	Any weapon — antlerless **only** Near cultivated fields outside National Forest System Boundary. See Note 2, Page 38. Unit 30 **only**: Aug 1 - Sep 30 Motorized Vehicle Restriction See Note 2, Page 44.			
No B Tags in this Zone — See Controlled Hunts				

Brownlee Zone (Unit 31)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only**— any elk Aug 30 - Sep 30			
No B Tags in this Zone — See Controlled Hunts				

ELK

Sawtooth Zone (Units 33, 34, 35, 36)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30	**Any weapon** — spike **only** Oct 5 - Oct 14		
	Note: 1,342 A Tag Quota Available on First-Come, First-Served Basis			
B Tag	**Archery only** — antlerless **only** Aug 30 - Sep 14	**Any weapon** — antlered **only** Oct 15 - Nov 8		
	Note: 2,382 B Tag Quota Available on First-Come, First-Served Basis			

Pioneer Zone (Units 36A, 49, 50)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 See archers caution pg 27. Motorized Vehicle Restriction See Note 2, Page 44.			
	Any weapon — antlerless **only** Near cultivated fields outside National Forest System Boundary. See Note 2, Page 38. Unit 36A **only**: Aug 1 - Sep 30 Motorized Vehicle Restriction See Note 2, Page 44.			
No B Tags in this Zone — See Controlled Hunts				
NOTE: Reductions in A Tag hunting opportunity may be implemented in 2010.				

Owyhee – South Hills Zone (Units 38, 40, 41, 42, 46, 47, 54, 55, 57)				
	September	**October**	**November**	**December**
A Tag	**Any weapon** — anterless **only** Unit 54 **only** - that portion within Cassia County outside the National Forest boundary Aug 1 - Dec 31			
No B Tags in this Zone — See Controlled Hunts				

Boise River Zone (Unit 39)				
	September	**October**	**November**	**December**
A Tag	**Muzzleloader only** — anterless **only** Sep 8 - Sep 30 Motorized Vehicle Restriction See Note 2, Page 44.		**Archery only** — any elk Nov 10 - Nov 30 See Note 3, Page 38.	
B Tag			**Any weapon** — antlered **only** Nov 1 - Nov 9	

Smoky Mountain Zone (Units 43, 44, 48)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Units 43, 48 **only** Aug 30 - Sep 30 See archers caution pg 27. Motorized Vehicle Restriction in Unit 48 See Note 2, Page 44.		**Any weapon**— spike **only** Nov 1 - Nov 7 Motorized Vehicle Restriction in Unit 48 See Note 2, Page 44.	
No B Tags in this Zone — See Controlled Hunts				

Bennett Hills Zone (Units 45, 52)				
	September	**October**	**November**	**December**
A Tag	**Muzzleloader only** — antlerless **only** Sep 1 - Sep 14 Motorized Vehicle Restriction See Note 2, Page 44			
No B Tags in this Zone — See Controlled Hunts				

Big Desert Zone (Units 52A, 68)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30			
No B Tags in this Zone — See Controlled Hunts				

ELK

Snake River Zone (Units 53, 63, 63A, 68A)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk, Unit 68A **only** Aug 1 - Sep 30	**Archery only** — antlerless **only**, Unit 68A **only** Oct 1 - Dec 31		
	Any weapon — any elk, Unit 63 **only** **Short range weapons only** — any elk Unit 63A **only** Aug 1 - Aug 31	**Any weapon** — antlerless **only**, Unit 63 **only** **Short range weapons only** — antlerless **only**, Unit 63A **only** Sep 1 - Dec 31		
	Any weapon — any elk, Unit 53 **only** Aug 1 - Dec 31 Motorized Vehicle Restriction in Unit 53, See Note 2, Page 44.			
No B Tags in this Zone — See Controlled Hunts				

Island Park Zone (Units 60, 60A, 61, 62A))				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30	**Any weapon** — spike **only** Oct 15 - Oct 28 **Short range weapons only** on Chester Wetlands WMA	**Muzzleloader only**— spike or antlerless Unit 61 **only** Nov 11 - Nov 24	
No B Tags in this Zone — See Controlled Hunts				

Teton Zone (Units 62, 65)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30	**Any weapon** — antlerless **only** Oct 22 - Nov 15		
B Tag	**Archery only** — spike or antlerless Aug 30 - Sep 14	**Any weapon** — antlered **only** Oct 15 - Oct 21		

Palisades Zone (Units 64, 67)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30	**Any weapon** — antlerless **only** Oct 22 - Nov 30		
B Tag	**Archery only** — spike or antlerless Aug 30 - Sept 14	**Any weapon** — antlered **only** Oct 15 - Oct 21		

Tex Creek Zone (Units 66, 69)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 Motorized Vehicle Restriction See Note 2, Page 44.	**Any weapon** — antlerless **only** Oct 22 - Nov 30 Motorized Vehicle Restriction See Note 2, Page 44.		
B Tag	**Archery only** — spike or antlerless Aug 30 - Sep 14 Motorized Vehicle Restriction See Note 2, Page 44.	**Any weapon** — antlered **only** Oct 15 - Oct 21 Motorized Vehicle Restriction See Note 2, Page 44.		

Bannock Zone (Units 56, 70, 71, 72, 73, 73A, 74)				
	August/September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 Motorized Vehicle Restriction in Units 56, 70 & 73 See Note 2, Page 44.	**Any weapon** — antlerless **only** Units 70, 71, 72, 73, 73A, 74 **only**: Oct 25 - Nov 15 Motorized Vehicle Restriction in Units 70 & 73 See Note 2, Page 44.	**Muzzleloader only** — antlerless **only** Nov 16 - Nov 30 Motorized Vehicle Restriction in Units 56, 70 & 73 See Note 2, Page 44.	
No B Tags in this Zone — See Controlled Hunts				

Bear River Zone (Units 75, 77, 78)				
	September	**October**	**November**	**December**
A Tag	**Archery only** — any elk Aug 30 - Sep 30 Motorized Vehicle Restriction See Note 2, Page 44.	**Any weapon** — antlerless **only** Oct 25 - Nov 15 Motorized Vehicle Restriction See Note 2, Page 44.	**Muzzleloader only** — antlerless **only** Nov 16 - Dec 31 Motorized Vehicle Restriction See Note 2, Page 44.	
B Tag	**Archery only** — spike or antlerless Aug 30 - Sep14 Motorized Vehicle Restriction See Note 2, Page 44.	**Any weapon** — antlered **only** Oct 15 - Oct 24 Motorized Vehicle Restriction See Note 2, Page 44.		

Diamond Creek Zone (Units 66A, 76)				
	August/September	October	November	December
A Tag	**Archery only** — any elk Aug 30 - Sep 30			
	Note: 1,837 A Tag Quota Available On First-Come, First-Served Basis			
	No B Tags in this Zone — See Controlled Hunts			

ELK GENERAL SEASON SPECIAL AREA DESCRIPTIONS

• **Note 1 — Unit 8A Muzzleloader Spike or Antlerless Hunt** — That portion of Unit 8A east of State Highway 6 and State Highway 9 and north of the following line: Beginning at the boundary of Unit 8A at its junction with State Highway 8 at Deary, then east on Highway 8 to Forest Service Road 1963 at Helmer, then south and east on Forest Service Road 1963 to Long Meadow Creek, then southeast on Long Meadow Creek to Dworshak Reservoir, then east along the shoreline of Dworshak Reservoir to the Unit 8A boundary at Dent Bridge.

• **Note 2 — Outside the National Forest System Boundary in Palouse, Lemhi, Beaverhead, Salmon and Pioneer Zones — Antlerless Hunts:** These hunts are open only outside the National Forest System Boundary within 1 mile of private fields on which cultivated crops are currently growing. The National Forest System Boundary is a legislatively set boundary — it is not necessarily the boundary of Forest Service property. State, private and other lands within the National Forest System Boundary are not open to hunting during this season. (Please refer to a U.S. Forest Service map for the location of this boundary.) "Private fields on which cultivated crops are currently growing" is defined as: fields on which soil has been used or broken up for the raising of crops, and artificially irrigated pasture. "Currently" means during the current or most recent growing season. Lands enrolled in the Conservation Reserve Program (CRP) or other set-aside farm programs are specifically excluded.

• **Note 3 — Unit 39 Archery Hunt CLOSED Area:** That portion of Unit 39 within Ada County AND that portion within the following boundary: Beginning at the intersection of State Highway 21 and the Middle Fork Boise River road (Forest Rd 268), east on Forest Rd 268 to Cottonwood Creek-Thorn Creek Road (Forest Rd 377), north and west on Forest Road 377 to State Highway 21, south and west on Highway 21 to the point of beginning.

Idaho Fish and Game photo

2009 Controlled Elk Hunts (16,381 Permits Plus Unlimited Permits) Antlered Elk				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2001	11-1	80	Oct 10 - Oct 24	
2002	11-1	71	Oct 25 - Nov 24	
2003	18	225	Oct 10 - Nov 3	
2004	19A	5	Oct 1 - Oct 14	
2005	23-1	5	Oct 1 - Oct 14	
2006	29	223	Oct 1 - Oct 24	*Motorized Vehicle Restriction, See note 2, Page 44*
2007	30-1* (see pg 47)	30	Oct 1 - Oct 14	*Motorized Vehicle Restriction, See note 2, Page 44*
2008	30	75	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2009	30A	10	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2010	31-2	40	Oct 15 - Nov 8	
2011	36A-1	58	Oct 1 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2012	36A-2* (see pg 48)	81	Oct 1 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2013	37	55	Oct 1 - Oct 24	*Motorized Vehicle Restriction, See note 2, Page 44*
2014	37A	84	Oct 1 - Oct 24	*Motorized Vehicle Restriction, See note 2, Page 44*
2015	40* (see pg 48)	5	Sep 25 - Oct 14	
2016	40* (see pg 48)	40	Oct 15 - Nov 24	
2017	43	10	Sep 25 - Oct 10	
2018	43	90	Oct 15 - Nov 9	
2019	44-1	10	Sep 25 - Oct 10	
2020	44-1	140	Oct 15 - Nov 9	
2021	45-1	100	Oct 1 - Oct 31	*Very limited access, Motorized Vehicle Restriction, See note 2, Page 44*
2022	48-1	10	Sep 25 - Oct 10	*Motorized Vehicle Restriction, See note 2, Page 44*
2023	48-1	115	Oct 15 - Nov 9	*Motorized Vehicle Restriction, See note 2, Page 44*
2024	49	10	Sep 25 - Oct 10	*Motorized Vehicle Restriction, See note 2, Page 44*
2025	49	150	Oct 15 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2026	50-1	75	Oct 15 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2027	51	25	Oct 1 - Oct 14	*Motorized Vehicle Restriction, See note 2, Page 44*
2028	51	125	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2029	52A* (see pg 48)	75	Oct 1 - Nov 30	
2030	54-1* (see pg 48)	15	Oct 15 - Nov 24	*Motorized Vehicle Restriction in Units 47 & 57, See note 2, Page 44*
2031	56	20	Oct 15 - Nov 9	*Motorized Vehicle Restriction, See note 2, Page 44*
2032	58-1* (see pg 48)	75	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2033	60-1* (see pg 48)	30	Oct 1 - Oct 14	
2034	60-2* (see pg 48)	100	Nov 1 - Nov 30	
2035	61	50	Nov 1 - Nov 10	
2036	66A* (see pg 48)	50	Oct 1 - Oct 14	
2037	66A* (see pg 48)	300	Oct 15 - Oct 24	

continued

* See controlled hunt area descriptions. This hunt includes other units or parts of other units.
For details on controlled hunt rules and restrictions, please see pages 70-73.

2009 Controlled Hunts Antlered Elk - continued				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2038	70* (see pg 49)	25	Oct 1 - Oct 14	*Motorized Vehicle Restriction in Units 70 & 73, See note 2, Page 44*
2039	70* (see pg 49)	200	Oct 15 - Oct 24	*Motorized Vehicle Restriction in Units 70 & 73, See note 2, Page 44*
2040	75* (see pg 49)	25	Oct 1 - Oct 14	*Motorized Vehicle Restriction, See note 2, Page 44*

2009 Controlled Hunts Antlerless Elk				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	***Notes***
2041	8-1* (see pg 46)	50	Oct 20 - Nov 13	
2042	8-2* (see pg 46)	100	Oct 20 - Nov 13	
2043	8-1* (see pg 46)	75	Nov 21 - Dec 31	
2044	8-2* (see pg 46)	150	Nov 21 - Dec 31	
2045	10A-1	50	Dec 10 - Dec 31	
2046	11-2	125	Aug 1 - Sep 15	*Very limited access*
2047	11-1	200	Oct 17 - Nov 3	
2048	11-1	175	Nov 4 - Nov 24	
2049	11A	150	Oct 20 - Dec 31	*Very limited access*
2050	13	150	Oct 10 - Nov 3	*Very limited access*
2051	14	75	Dec 10 - Dec 31	
2052	18	150	Oct 10 - Nov 3	
2053	19A	25	Oct 15 - Nov 8	
2054	22-1	400	Oct 1 - Oct 12	
2055	22-1	300	Oct 13 - Oct 24	
2056	22-1	100	Oct 25 - Nov 3	
2057	22-2	100	Oct 1 - Oct 14	
2058	22-3	100	Nov 10 - Nov 30	
2059	23-2	100	Oct 1 - Oct 14	
2060	23-2	125	Oct 15 - Nov 8	
2061	23-3	150	Oct 5 - Nov 5	*Very limited access*
2062	23-3	100	Dec 1 - Dec 31	*Very limited access*
2063	23-4	75	Oct 15 - Nov 8	*Very limited access*
2064	23-4	100	Dec 1 - Dec 31	*Very limited access*
2065	24-1	300	Oct 15 - Nov 8	
2066	24-2	150	Oct 15 - Nov 8	
2067	25	25	Oct 15 - Nov 8	
2068	29	180	Nov 1 - Nov 20	*Motorized Vehicle Restriction, See note 2, Page 44*
2069	30	160	Dec 1 - Dec 15	*Motorized Vehicle Restriction, See note 2, Page 44*
2070	31-1	400	Aug 1 - Dec 31	*Landowner permission required, See note 1, Page 44*
2071	31-2	50	Oct 1 - Oct 14	

continued

CONTROLLED ELK

* See controlled hunt area descriptions. This hunt includes other units or parts of other units.
For details on controlled hunt rules and restrictions, please see pages 70-73.

2009 Controlled Hunts Antlerless Elk - continued				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2072	31-2	50	Oct 15 - Nov 9	
2073	32-1	100	Oct 1 - Nov 3	*Motorized Vehicle Restriction, See note 2, Page 44* *Very limited access*
2074	32-1	200	Nov 4 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44* *Very limited access*
2075	32-2	100	Aug 1 - Aug 29 Oct 5 - Dec 31	*Motorized Vehicle Restriction, See note 2, Page 44* *Landowner permission required, See note 1, Page 44*
2076	32A	200	Oct 1 - Oct 12	*Motorized Vehicle Restriction, See note 2, Page 44*
2077	32A	200	Oct 13 - Oct 24	*Motorized Vehicle Restriction, See note 2, Page 44*
2078	32A	100	Oct 25 - Nov 3	*Motorized Vehicle Restriction, See note 2, Page 44*
2079	32A	100	Nov 10 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2080	36A-2* (see pg 48)	25	Oct 15 - Oct 28	*Motorized Vehicle Restriction, See note 2, Page 44*
2081	37	75	Oct 15 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2082	37	75	Nov 1 - Nov 20	*Motorized Vehicle Restriction, See note 2, Page 44*
2083	37-1* (see pg 48)	100	Aug 1 - Sep 30	*Near cultivated fields outside National Forest Boundary, See note 2, Page 38* *Motorized Vehicle Restriction, See note 2, Page 44*
2084	37A	275	Nov 1 - Nov 20	*Motorized Vehicle Restriction, See note 2, Page 44*
2085	39-1	400	Oct 5 - Oct 31	
2086	39-2	400	Oct 5 - Oct 31	
2087	39-3	400	Aug 1 - Nov 9 Dec 1 - Dec 31	*Landowner permission required, See note 1, Page 44*
2088	40* (see pg 48)	100	Oct 15 - Nov 24	
2089	44-1	90	Nov 10 - Nov 30	
2090	45-1	100	Oct 15 - Nov 30	*Very limited access,* *Motorized Vehicle Restriction, See note 2, Page 44*
2091	48-2	90	Oct 15 - Nov 9	*Motorized Vehicle Restriction, See note 2, Page 44*
2092	48-3	90	Oct 15 - Nov 9	*Motorized Vehicle Restriction, See note 2, Page 44*
2093	48-4* (see pg 48)	125	Aug 8 - Sep 15	*Motorized Vehicle Restriction, See note 2, Page 44*
2094	49	125	Oct 15 - Oct 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2095	49	125	Nov 10 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2096	50-2	100	Dec 1 - Dec 15	*Motorized Vehicle Restriction, See note 2, Page 44*
2097	50-3	100	Dec 1 - Dec 15	*Motorized Vehicle Restriction, See note 2, Page 44*
2098	51	150	Oct 15 - Nov 3	*Motorized Vehicle Restriction, See note 2, Page 44*
2099	51	150	Dec 10 - Dec 31	*Motorized Vehicle Restriction, See note 2, Page 44*
2100	52A* (see pg 48)	150	Oct 1 - Nov 30	
2101	54-1* (see pg 48)	40	Oct 1 - Nov 30	*Motorized Vehicle Restriction in Units 47 & 57, See note 2, Page 44*

continued

* See controlled hunt area descriptions. This hunt includes other units or parts of other units.
For details on controlled hunt rules and restrictions, please see pages 70-73.

2009 Controlled Hunts Antlerless Elk - continued				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2102	54-2* (see pg 48)	20	Aug 1 - Sep 30	*Landowner permission required, See note 1, Page 44* *Private land **only*** *Motorized Vehicle Restriction in Units 47 & 57, See note 2, Page 44*
2103	58-2	200	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2104	59* (see pg 48)	150	Nov 1 - Nov 30	*Motorized Vehicle Restriction, See note 2, Page 44*
2105	60-2* (see pg 48)	100	Nov 1 - Nov 30	
2106	61	100	Nov 1 - Nov 10	
2107	66A-1	300	Oct 25 - Nov 15	
2108	67	50	Oct 22 - Dec 14	
2109	76-1	700	Oct 25 - Nov 15	
2110	76-2* (see pg 49)	250	Nov 16 - Dec 31	

2009 Controlled Hunts Either Sex Elk				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2111	11-2	20	Aug 1 - Sep 15	*Very limited access*
2112	13	335	Oct 10 - Nov 3	*Very limited access*
2113	62-2* (see pg 48)	150	Nov 6 - Nov 30	
2114	62A	150	Nov 1 - Dec 15	

2009 Controlled Hunts Archery Only Elk - Archery Permit Required				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2115	18	75	Aug 30 - Sep 30	*Either sex*
2116	45-1	15	Sep 15 - Sep 30	*Either sex, Motorized Vehicle Restriction, See Note 2, Page 44*
2117	54-1* (see pg 48)	15	Aug 30 - Sep 30	*Either sex, Motorized Vehicle Restriction in Units 47 & 57, See Note 2, Page 44*

2009 Controlled Hunts Youth Only Elk				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2118	28	25	Oct 15 - Nov 30	*Either sex*
2119	36A	25	Oct 1 - Nov 30	*Antlerless **only**, Motorized Vehicle Restriction, See note 2, Page 44*
2120	44-2* (see pg 48)	150	Nov 10 - Nov 30	*Antlerless **only**, Motorized Vehicle Restriction in Units 45 & 52, See note 2, Page 44*
2121	50-1	100	Oct 15 - Oct 28	*Antlerless **only**, Motorized Vehicle Restriction, See note 2, Page 44*
2122	66* (see pg 48)	200	Oct 22 - Dec 14	*Either sex, Motorized Vehicle Restriction, See note 2, Page 44*

2009 Controlled Hunts Muzzleloader Only Elk - Muzzleloader Permit Required				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2123	4* (see pg 46)	25	Nov 10 - Dec 1	*Either sex*
2124	11-1	50	Nov 25 - Dec 4	*Either sex*
2125	22-3	100	Dec 1 - Dec 31	*Antlerless **only***
2126	24-3	50	Dec 1 - Dec 20	*Antlerless **only***
2127	25	10	Nov 15 - Dec 10	*Antlerless **only***
2128	32A	100	Dec 1 - Dec 31	*Antlerless **only** Motorized Vehicles Restriction, See Note 2, Page 44*
2129	33-1* (see pg 48)	50	Nov 10 - Nov 30	*Antlerless **only***
2130	33-2* (see pg 48)	50	Nov 10 - Nov 30	*Antlered **only***
2131	54* (see pg 48)	10	Nov 1 - Nov 30	*Either sex, Motorized Vehicle Restriction in Units 47 & 57, See note 2, Page 44*
2132	61	200	Nov 11 - Dec 9	*Either sex*
2133	62-1* (see pg 48)	25	Oct 1 - Oct 9	*Either sex*
2134	64* (see pg 48)	50	Oct 1 - Oct 9	*Either sex*
2135	66* (see pg 48)	50	Oct 1 - Oct 9	*Either sex, Motorized Vehicle Restriction in Units 66 & 69, See note 2, Page 44*

2009 Controlled Hunts Extra Antlerless Elk				
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2210	1X	40	Jan 1 - Jan 31	*Very limited access, See note 3, Page 44*
2211	8X* (see pg 46)	100	Jan 1 - Jan 31	*See note 3, Page 44*
2212	31-1X	100	Jan 1 - Jan 31	*Landowner Permission Required, See notes 1 and 3, Page 44*
2213	45-2X	25	Aug 1 - Dec 31	*Landowner Permission Required, See note 1, Page 44* *Motorized Vehicle Restriction, See note 2, Page 44*
2214	52AX	25	Aug 1 - Dec 31	*Landowner Permission Required, See note 1, Page 44*
2215	63X	25	Jan 1 - Jan 31	*See note 3, Page 44*
2216	73X	50	Dec 1 - Dec 31	*Very limited access, Motorized Vehicle Restriction, See note 2, Page 44*
2217	73X	25	Jan 1 - Jan 31	*Very limited access, Motorized Vehicle Restriction, See notes 2 and 3, Page 44*
2218	74-1X* (see pg 49)	50	Dec 1 - Dec 31	*Short range weapons **only**, Very limited access*
2219	74-1X* (see pg 49)	50	Jan 1 - Jan 31	*Short range weapons **only**, Very limited access, See note 3, Page 44*
2220	74-2X* (see pg 49)	50	Dec 1 - Dec 31	*Very limited access, Motorized Vehicle Restriction, Unit 73, See note 2, Page 44*
2221	74-2X* (see pg 49)	50	Jan 1 - Jan 31	*Very limited access, Motorized Vehicle Restriction, Unit 73 See notes 2 and 3, Page 44*
2222	76-3X* (see pg 49)	25	Aug 1 - Aug 29	*Very limited access, See page 49*
2223	76-4X	25	Dec 1 - Dec 31	*Very limited access, See page 49*
2224	76-4X	75	Jan 1 - Jan 31	*Very limited access, See page 49, See note 3, Page 44*
2225	77X	25	Jan 1 - Jan 31	*Short range weapons **only**, Very limited access, Motorized Vehicle Restriction, See notes 2 and 3, Page 44*

Notes:

1. Landowner Permission Hunts. Written permission on a form provided by the Department from a landowner who owns more than 159 acres in the hunt area is required to apply for this hunt. Landowner Permission Hunt Permits will be sold on a first-come, first-served basis at the Nampa, McCall, Jerome, and headquarters Fish and Game offices starting July 15. Do not apply for this hunt during the controlled hunt application period.
2. Motorized vehicle use as an aid to hunting for wildlife is restricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles – any motorized vehicle with a gross vehicle weight in excess of 1,500 pounds. See Page 68.
3. These are 2010 hunts; hunters cannot pick up these tags without a 2010 hunting license, which go on sale December 1, 2009.

* See controlled hunt area descriptions. This hunt includes other units or parts of other units.
For details on controlled hunt rules and restrictions please see pages 70-73.

⇩	2009 Controlled Hunts Outfitter Allocation Elk			
Hunt No.	**Controlled Hunt Areas**	**Permits**	**Season Dates**	**Notes**
2136	11-1	5	Oct 10 - Oct 24	*Antlered **only***
2137	11-1	4	Oct 25 - Nov 24	*Antlered **only***
2138	13	15	Oct 10 - Nov 3	*Either sex*
2139	18	9	Oct 10 - Nov 3	*Antlered **only***
2140	28	3	Oct 15 - Nov 30	*Either sex, Youth **only***
2141	29	7	Oct 1 - Oct 24	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2142	36A-1	3	Oct 1 - Oct 31	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2143	36A-2* (see pg 48)	6	Oct 1 - Oct 31	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2144	36A	3	Oct 1 - Nov 30	*Antlerless **only**, Youth **only**, Motorized Vehicle Restriction, See note 2, Page 44*
2145	37A	5	Oct 1 - Oct 24	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2146	43	4	Oct 15 - Nov 9	*Antlered **only***
2147	49	8	Oct 15 - Oct 31	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2148	50-1	4	Oct 15 - Oct 31	*Antlered **only*** *Motorized Vehicle Restriction, See note 2, Page 44*
2149	61	1	Nov 1 - Nov 10	*Antlered **only***
2150	62-2* (see pg 48)	15	Nov 6 - Nov 30	*Either sex*
2151	66A* (see pg 48)	12	Oct 15 - Oct 24	*Antlered **only***

Outfitted controlled hunts:

Before submitting an application for an outfitter-allocated controlled hunt, hunters must have a written agreement with an outfitter licensed in the hunt area. Successful applicants must hunt with an outfitter licensed for the hunt area. The outfitter must purchase the hunter's permit and tag by August 20. Successful applicants authorize Idaho Fish and Game to provide names and addresses to the outfitters licensed for that controlled hunt. For a list of licensed outfitters in the applicable controlled hunt area, a sample written agreement, and additional information contact the Idaho Outfitters and Guides Licensing Board at their website - www.state.id.us/oglb or by calling 208-327-7380.

For details on controlled hunt rules and restrictions, please see pages 70-73.

* See controlled hunt area descriptions. This hunt includes other units or parts of other units.

Elk Controlled Hunt Area Descriptions

Hunt Area 1X — That portion of Unit 1 within the following boundary: Beginning where the Kootenai River crosses the Canada border, then upstream along the Kootenai River to Mission Creek, then upstream along Mission Creek to the East Fork of Mission Creek to the Canada border, then west along the Canada border to the Kootenai River, the point of beginning..

Hunt Area 4 — All of Units 4, 7, and 9.

Hunt Area 8-1 — That portion of Units 8 and 8A north of the following line: Beginning at the western boundary of Unit 8 at its junction with State Highway 8, then east on Highway 8 to State Highway 9, then northwest on Highway 9 to State Highway 6, then north on Highway 6 to the Unit 8A boundary.

Hunt Area 8-2 — That portion of Units 8 and 8A south of the following line: Beginning at the western boundary of Unit 8 at its junction with State Highway 8, then east on Highway 8 to Forest Service Road 1963 at Helmer, then south and east on Forest Service Road 1963 to Long Meadow Creek, then southeast along Long Meadow Creek to Dworshak Reservoir, then east along the shoreline of Dworshak Reservoir to the Unit 8A boundary at Dent Bridge.

Hunt Area 8X — Private land only (for the purpose of this hunt private land does not include corporate timberlands). All of Unit 8 and that portion of Unit 8A south of the following line: Beginning at the junction of State Highway 9 and Old Avon Road, then east on Old Avon Road to Mica Mountain Road, then south on Mica Mountain Road to State Highway 9; AND that portion of Unit 8A south of the following line: Beginning at the western boundary of Unit 8A at State Highway 3 at Deary, then east on Highway 8 to Forest Road 1963 at Helmer, then south and east on Forest Road 1963 to Long Meadow Creek, then southeast along Long Meadow Creek to Dworshak Reservoir, then east along the shoreline of Dworshak Reservoir to the Unit 8A boundary at Dent Bridge.

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Hunt Area 10A-1 — That portion of Unit 10A west of the Clearwater National Forest boundary, south of Forest Service Road 250, south of State Highway 11 from Pierce to Weippe, and Jim Ford Creek from Weippe to its junction with the Clearwater River.

Hunt Area 11-1 — All of Unit 11.

Hunt Area 11-2 — That portion of Unit 11 within ONE mile of cultivated fields and north and east of the following boundary: Beginning at the Unit 11/13 boundary at the Nez Perce County/Lewis County line, then north on the Nez Perce County/Lewis County line to Soldiers Meadow Road, then west on Soldiers Meadow Road to ZaZa Road, then north on ZaZa Road to Waha Road, then north on Waha Road to Redbird Road, then west on Redbird Road to the boundary of the Craig Mountain WMA, then north and east along the Craig Mountain WMA boundary to the Snake River, then north along the Snake River to the Unit 8/11 boundary.

Hunt Area 11A — All of Unit 11A.

Hunt Area 13 — All of Unit 13.

Hunt Area 14 — That portion of Unit 14 north and west of the following boundary: Beginning on the Unit 14 western boundary at John Day Creek, then east along the main fork of John Day Creek to the National Forest boundary, then north along the National Forest boundary to Forest Service Road 2025 (Skookumchuck Road), then east along Forest Service Road 2025 to Forest service Road 243 (Free Use Road), then east along Forest Service Road 243 to Forest Service Road 221, then north along Forest Service Road 221 to the Unit 14 eastern boundary.

Hunt Area 18 — All of Unit 18.

Hunt Area 19A — All of Unit 19A.

Hunt Area 22-1 — That portion of Unit 22 described as follows: Beginning at the junction of U.S. 95 and the West Fork Weiser River Road (Forest Service Road 127), then north on Forest Service Road 127 to Grouse Creek Road (Forest Service Road 123), then northwest on Forest Service Road 123 to the watershed divide between Lick Creek and Lost Creek drainages, then north on the divide between Lick Creek and Lost Creek drainages to Lick Creek Lookout, then west on Unit 22 boundary to the Snake River, then south on the Snake River to State Highway 71, then southeast on State Highway 71 to Cambridge, then north on U.S. 95 to the point of beginning.

Hunt Area 22-2 — That portion of Unit 22 as follows: Beginning at the junction of U.S. 95 and the West Fork Weiser River Road (Forest Service Road 127), then north on Forest Service Road 127 to Grouse Creek Road (Forest Service Road 123), then northwest on Forest Service Road 123 to the watershed divide between Lick Creek and Lost Creek drainages, then north on the divide between Lick Creek and Lost Creek drainages to Lick Creek Lookout, then east along Unit 22 boundary to U.S. 95 to the point of beginning.

Hunt Area 22-3 — All of Unit 22.

Hunt Area 23-1 — All of Unit 23.

Hunt Area 23-2 — That portion of Unit 23 within the Little Salmon River drainage, upstream from and including the Boulder Creek drainage on the west side of the Little Salmon River; and upstream from but excluding the Hazard Creek drainage on the east side of the Little Salmon River.

Hunt Area 23-3 — That portion of Unit 23 west of U.S. 95 and north of, and excluding, the Boulder Creek drainage.

Hunt Area 23-4 — That portion of Unit 23 which drains into the main Salmon River upstream from its confluence with the Little Salmon River to the French Creek-Burgdorf Road.

Hunt Area 24-1 — That portion of Unit 24 within the following boundary: Beginning at the junction of State Highway 55 and the Warm Lake Road, then east along Warm Lake Road to the Unit 24/25 boundary, then north

along the Unit 24/25/19A boundary to the intersection of the Unit 24/19A/23 boundaries, then south along the Unit 24/23/32A boundary to Forest Service Road 186 at No Business Saddle, then southeast on Forest Service Road 186 to West Mountain Road, then south on West Mountain Road to Tamarack Falls Road, then east on Tamarack Falls Road to Norwood Road, then north on Norwood Road to West Roseberry Road, then east on West Roseberry Road to State Highway 55, then south on State Highway 55 to the point of beginning. ***Except*** **Short Range Weapons only** in that portion within the following boundary: Beginning in McCall at the junction of State Highway 55 and Boydstun Street, then south on Boydstun Street to West Valley Road, then west and south along West Valley Road and west Mountain Road to Tamarack Falls Road, then east on Tamarack Falls Road to Norwood Road, then north on Norwood Road to West Roseberry Road, then east on West Roseberry Road to State Highway 55, then south on State Highway 55 to Farm-to-Market Road then north on Farm-to-Market Road, to Elo Road, then west on Elo Road to State Highway 55, then north on State Highway 55 to the point of beginning.

Hunt Area 24-2 — That portion of Unit 24 within the following boundary: Beginning north of Cascade at the junction of State Highway 55 and Warm Lake Road, then north on Highway 55 to West Roseberry Road, then west on West Roseberry Road to Norwood Road, then south on Norwood Road to Tamarack Falls Road, then west on Tamarack Falls Road to West Mountain Road, then north on West Mountain Road to Forest Service Road 186, then northwest on Forest Service Road 186 to No Business Saddle, then south along the Unit 24/32A unit boundary to the intersection of the Unit 24/32A/33 boundaries at Smith's Ferry, then north along the Unit 24/33/25 boundary to Warm Lake Road, then west on Warm Lake Road to the point of beginning. **Except** Short Range Weapons **only** within the following boundary: Beginning in Donnelly at the junction of State Highway 55 and West Roseberry Road, then west on West Roseberry Road to Norwood Road, then south on Norwood Road to Tamarack Falls Road, then west on Tamarack Falls Road to West Mountain Road, then south on West Mountain Road to Cabarton Road, then north on Cabarton Road to State Highway 55, then north on State Highway 55 to the point of beginning.

Hunt Area 24-3 — All of Unit 24.

Hunt Area 25 — All of Unit 25.

Hunt Area 28 — All of Unit 28.

Hunt Area 29 — All of Unit 29.

Hunt Area 30 — All of Unit 30.

Hunt Area 30-1 — All of Units 30, 30A, 58, 59, and 59A.

Hunt Area 30A — All of Unit 30A.

Hunt Area 31-1 — That portion of Unit 31 that drains into the Snake River, upstream from and including the Grouse Creek Drainage to the U.S. Highway 95 bridge in Weiser; and that portion of Unit 31 that drains into Monroe Creek from it's mouth upstream to and including the Sheep Creek drainage.

Hunt Area 31-1X — That portion of Unit 31 that drains into the Snake River, upstream from and including the Grouse Creek Drainage to the U.S. Highway 95 bridge in Weiser; and that portion of Unit 31 that drains into Monroe Creek from it's mouth upstream to and including the Sheep Creek drainage.

Hunt Area 31-2 — All of Unit 31.

Hunt Area 32-1 — That portion of Unit 32 east of the following boundary: Beginnng at the unit 32/38 boundary at Emmett, then north on Highway 52 to the Van Dussen Road, then north on Four Mile Road to the unit 32/32A boundary.

Hunt Area 32-2 — All of Unit 32 south and east of the following boundary: Beginning at the unit 32 boundary at

continued . . .

Gardena, then west on the Brownlee Road to the Sweet highway, then south to highway 52, then south and west on highway 52 to the Unit 32/38 boundary.

Hunt Area 32A — All of Unit 32A.

Hunt Area 33-1 — All of Units 33, 34, 35, and 36.

Hunt Area 33-2 — All of Units 33 and 35 and that portion of Unit 34 south and west of the Landmark-Stanley Road.

Hunt Area 36A — All of Unit 36A.

Hunt Area 36A-1 — That portion of Unit 36A west of the East Fork of the Salmon River and that portion east of the East Fork of the Salmon River upstream from and including the West Pass Creek drainage.

Hunt Area 36A-2 — That portion of Unit 36A east of the East Fork of the Salmon River downstream from but **excluding** the West Pass Creek drainage, and that portion of Unit 50 north of Trail Creek Road and west of U.S. Highway 93, and that portion of Unit 50 north of the Doublespring Pass Road east of U.S. Highway 93.

Hunt Area 37 — All of Unit 37.

Hunt Area 37-1 — Those portions of Units 37 and 37A outside the National Forest Boundary and on or within 1 mile of private land on which agricultural crops are currently growing.

Hunt Area 37A — All of Unit 37A.

Hunt Area 39-1 — That portion of Unit 39 south and east of State Highway 21.

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Hunt Area 39-2 — That portion of Unit 39 north and west of State Highway 21.

Hunt Area 39-3 — That portion of Unit 39 north and west of the following boundary: Beginning in Boise, north on the Bogus Basin Road to Bogus Basin, then north on Forest Service Road 374 (Boise Ridge Road) to the Unit 39 boundary at Hawley Mountain.

Hunt Area 40 — All of Units 40 and 42.

Hunt Area 43 — All of Unit 43.

Hunt Area 44-1 — All of Unit 44.

Hunt Area 44-2 — All of Units 44, 45, and 52.

Hunt Area 45-1 — All of Unit 45.

Hunt Area 45-2X — All of Units 45 and 52.

Hunt Area 48-1 — All of Unit 48.

Hunt Area 48-2 — That portion of Unit 48 north of Trail Creek and the Ketchum-Warm Springs Creek-Dollarhide Summit Road.

Hunt Area 48-3 — That portion of Unit 48 south of the Ketchum-Warm Springs Creek-Dollarhide Summit Road.

Hunt Area 48-4 — That portion of Unit 48 south and east of the following boundary: Beginning at the junction of the Deer Creek Road and State Highway 75, then west on the Deer Creek Road (Forest Service Road 097) to the Deer Creek Trail (Forest Service Trail 168), then west on the Deer Creek Trail to the Curran Creek Trail (Forest Service Trail 160), then southwest on the Curran Creek Trail to the Unit 44/48 boundary, and that portion of Unit 44 east of Willow Creek and south and east of Little Beaver Creek and Princess Mine Road.

Hunt Area 49 — All of Unit 49.

Hunt Area 50-1 — That portion of Unit 50 south of the Doublespring Pass Road east of U.S. Highway 93, and that portion south of the Trail Creek Road west of U.S. Highway 93.

Hunt Area 50-2 — That portion of Unit 50 south of the Doublespring Pass Road east of U.S. Highway 93, and that portion south of the Trail Creek Road west of U.S. Highway 93 **excluding** the East Fork of the Big Lost River drainages and **excluding** south of the Antelope/Fish Creek Road.

Hunt Area 50-3 — That portion of Unit 50 south of the Antelope/Fish Creek Road and west of Highway 93.

Hunt Area 51 — All of Unit 51.

Hunt Area 52A — All of Units 52A and 68. (Caution: See Craters of the Moon closure, page 63.)

Hunt Area 52AX — All of Unit 52A. (Caution: See Craters of the Moon closure, page 63.)

Hunt Area 54-1 — All of Units 46, 47, 54, 55 and 57 and that portion of Unit 41 east of the West Fork Bruneau River.

Hunt Area 54-2 — Private land within Units 46, 47, 54, 55 and 57 and private land within that portion of Unit 41 east of the West Fork Bruneau River.

Hunt Area 56 — All of Unit 56.

Hunt Area 58-1 — All of Units 58, 59, and 59A.

Hunt Area 58-2 — All of Unit 58.

Hunt Area 59 — All of Units 59 and 59A.

Hunt Area 60-1 —All of Units 60, 61, and 62A.

Hunt Area 60-2 — All of Units 60 and 60A.

Hunt Area 61 — All of Unit 61.

Hunt Area 62-1 — All of units 62 and 65.

Hunt Area 62-2 — That portion of Unit 62 within the national forest boundary and that portion of Unit 65 east of State Highway 33.

Hunt Area 62A — All of Unit 62A.

Hunt Area 63X — That portion of Unit 63 north of State Highway 33, **excluding** the Camas National Wildlife Refuge which is closed.

Hunt Area 64 — All of units 64 and 67.

Hunt Area 66 — All of Units 66 and 69.

Hunt Area 66A — All of Units 66A and 76.

Hunt Area 66A-1 — All of Unit 66A.

Hunt Area 67 — All of Unit 67.

Hunt Area 70 — All of Units 70, 71, 72, 73, 73A, and 74.

Hunt Area 73X — That portion of Unit 73 east of Interstate Highway 15 from the Utah border to Exit 17, south and west of State Highway 36 from Exit 17 to Weston, and south County Road D1 from Weston to the Utah border.

Hunt Area 74-1X — Those portions of Units 74 and 75 within the following: Beginning at the junction of Highway 34 and Central Road, west on Central Road to Mountain Road, south on Mountain Road to Gentile Road, south on Gentile Road to River Road, south on River Road to Thatcher Road, east on Thatcher Road to Highway 34, south on Highway 34 to Main Canyon Road (USFS Road 440) to the USFS boundary, north along the USFS boundary to King Canyon Road (USFS Road 183), west on King Canyon Road to the Harwood Road, south on Harwood Road to Burton Road, west on Burton Road to Highway 34 to the point of beginning.

Hunt Area 74-2X — That portion of Units 73 and 74 within the following boundary: Starting at the intersection of West Oneida Street and Highway 91 in Preston and following Highway 36 to Dayton, then north on the Westside Highway to Highway 91, then slightly north to the transmission lines intersecting Highway 91 just north of Red Rock Pass, then following the transmission line south and east until the transmission line meets State Highway 34, then south on State Highway 34 to the place of beginning in Preston.

Hunt Area 75 — All of Units 75, 77, and 78.

Hunt Area 76-1 — All of Unit 76.

Hunt Area 76-2 — That portion of Unit 66A within the Miller and Newswander Creek drainages, the Jackknife Creek drainage east of the mouth of Squaw Creek, and east of the Cabin Creek-Haderlie Ridge Trail (Forest Service Trail 619), and the following portions of Unit 76: the drainage of Salt River east and south of the South Fork of Tincup Creek, and the drainage of the Thomas Fork of the Bear River north of State Highway 89 to the Idaho-Wyoming border.

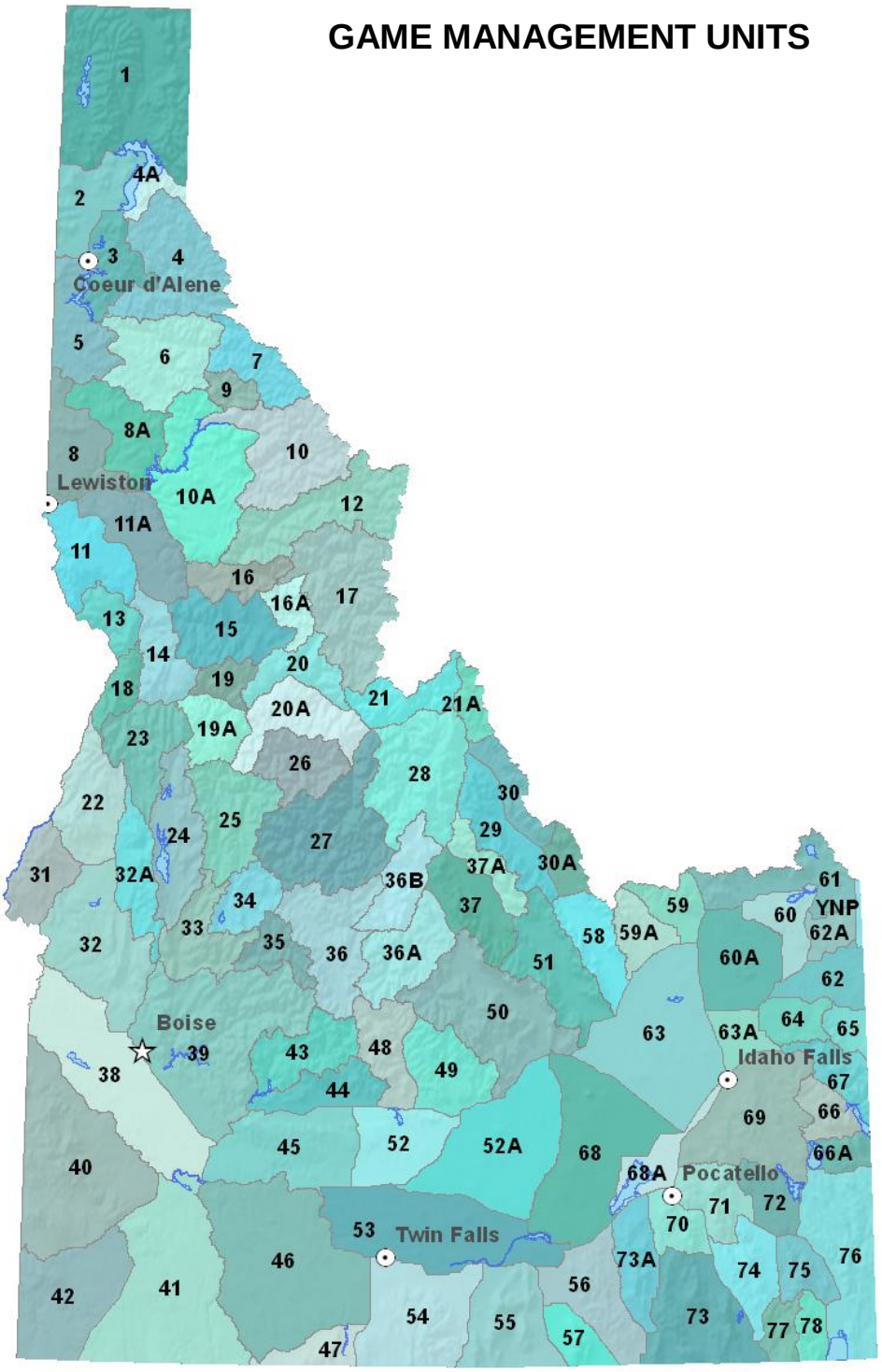
Hunt Area 76-3X — Private lands and adjacent National Forest lands within one-half mile of the eastern boundary of National Forest within the following: Unit 66A south of Miller Creek, and Unit 76 north and east of the junction of Sage Creek and Crow Creek Road to the Idaho-Wyoming border.

Hunt Area 76-4X — That portion of Unit 76 south of the Georgetown Canyon road and the Bear Lake County line, **excluding** Caribou National Forest lands; **and** that portion of Unit 76 south of US Highway 89 and north of US Highway 30 between Montpelier and the Wyoming border.

Hunt Area 77X — That portion of Unit 77 east of US Highway 91, south of the Cub Creek Road, and west of the Cache National Forest boundary to the Utah border.

IDAHO

GAME MANAGEMENT UNITS



Submitted by:

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Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Brad Compton Asst. Chief, Bureau of Wildlife Federal Aid Coordinator	Jeff Gould, Chief Bureau of Wildlife

FEDERAL AID IN WILDLIFE RESTORATION

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sale of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. The Idaho Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be responsible, ethical hunters. Seventy-five percent of the funds for this project are from Federal Aid. The other 25% comes from license-generated funds.