

**IDAHO DEPARTMENT OF FISH AND GAME**

**Steven M. Huffaker, Director**

**Project W-170-R-30**

**Progress Report**



**MULE DEER**

Study I, Job 2

July 1, 2005 to June 30, 2006

Prepared by:

Jim Hayden, Dave Spicer, Wayne Wakkinen..... Panhandle Region  
Jay Crenshaw, Dave Koehler, Clay Hickey..... Clearwater Region  
Jon Rachael, Jeff Rohlman, Hollie Miyasaki, Jake Powell ..... Southwest Region  
Randy Smith, Regan Berkley..... Magic Valley Region  
Carl Anderson, Corey Class..... Southeast Region  
Daryl Meints, Jeff Short, Justin Naderman..... Upper Snake Region  
Tom Keegan, Curtis Hendricks..... Salmon Region

Compiled and edited by: Bradley B. Compton, State Big Game Manager

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**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>1-7</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**STATEWIDE**

**Summary**

Mule deer are Idaho's most abundant and widely-distributed big game animal. They provide more recreational opportunity than any other big game species. Mule deer densities are highest in Idaho south of Salmon River. North of Salmon River, white-tailed deer are the dominant deer species, but mule deer populations are found scattered throughout northern Idaho where there is suitable habitat.

Mule deer are primarily browsers, so most of their diet is composed of the leaves and twigs of shrubs and trees, particularly during winter. Grasses and forbs can be important dietary components at certain times of the year, such as spring and early summer.

Winter range is a critical component of mule deer habitat. Mule deer are susceptible to high mortality during periods of prolonged deep snow and low temperatures. Winter range has long been recognized as an important habitat component, but our ideas about it have changed as we have learned more about how deer use it. In the 1950s and 1960s, most of our emphasis was on the food resources on winter range. This was reflected in plantings of bitterbrush and measurements of utilization of browse plants. It was obvious that the food resources of winter range were important, but it could not account for all the variation observed in winter range use.

Even under the best conditions, deer lose weight all winter long. The best "winter range" a mule deer has is the fat stored in the body during spring, summer, and fall. Therefore, the condition of a deer at the start of winter depends on the quality of habitat it occupies during the rest of the year. The main strategy of a mule deer in winter is to survive by minimizing energy loss and by eating enough to prolong fat reserves. Deer commonly seek winter ranges where there is good thermal cover to minimize energy loss. Deer often become very sedentary during winter, moving and feeding as little as possible to conserve energy.

Our view of winter range has changed, but not its importance. Cover, aspect, and elevation are recognized as crucial components, and during certain times, are more important than food. Human disturbance of deer on winter ranges causes them to move from favored sites and waste

precious energy. The size of winter range is important to allow for different snow conditions and fluctuations in deer populations.

Much of Idaho's historic mule deer winter range has been developed for other uses and is now occupied by man. Ranches, farms, subdivisions, and industry located in the foothills and at lower elevations have eliminated winter range. In many parts of Idaho, deer winter range is adequate for the "average" winter, but when severe winters occur, deer are forced to low elevations where they come into conflict with humans. Deer can damage standing and stored crops; most commonly hay, ornamental shrubs, trees, and orchards. Depredations by mule deer can be severe and, in many cases, is an important factor in determining the optimum size of a deer population.

Early spring is an important time of year for mule deer and spring range is a key component of year-round habitat. Most winter-related mortality actually occurs in early spring. Fawns and old bucks are most likely to die of winter stress. Mortality of does is usually light, but their condition is particularly critical because they are entering the third trimester of pregnancy and development of the fetus taxes their resources. The quality and quantity of nutritious forage in spring (Apr-Jul) has a major effect on production and survival of fawns. The timing of spring green-up is also important. A winter-stressed deer needs good forage as soon as possible. Cold, late spring weather with late green-up can increase mortality and reduce production.

Summer-fall ranges are obviously important because this is where deer produce fat reserves that will allow survival through winter. Quality of summer-fall forage directly influences pregnancy and ovulation rates and, therefore, fawn production. Late fall is the last opportunity for deer to forage and store fat before moving to winter range. High-quality fall range is important for bucks because their body reserves are reduced by rutting.

Many of Idaho's mule deer are migratory. They commonly travel long distances (20-100 miles) from summer range to winter range. Mule deer are fairly traditional and return to the same summer and winter ranges each year. Tagging and radio telemetry studies indicate that deer summering in the same area may go to different winter ranges, often in different game management units or different states. We have also found that deer wintering together can move to entirely different summer ranges. The migratory behavior of deer and the differential distribution of bucks and does complicates the measurement and interpretation of population parameters.

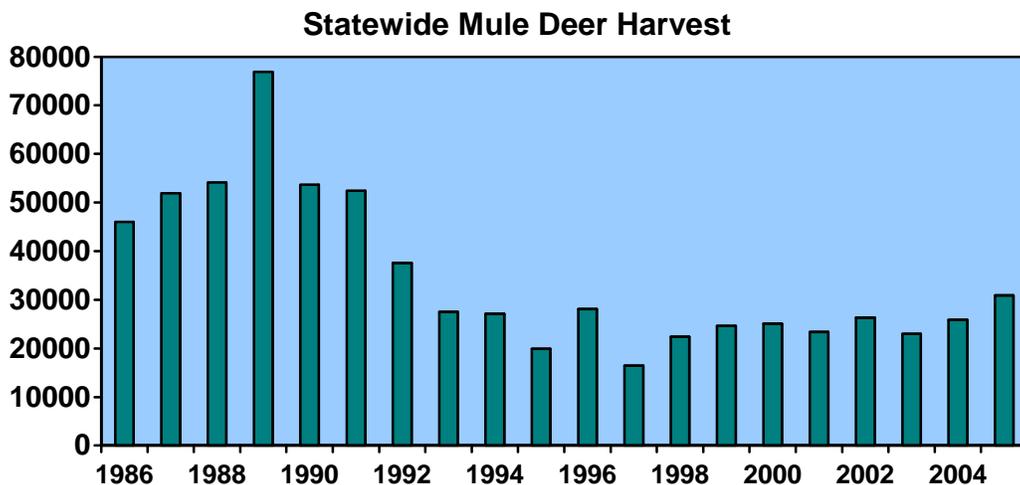
Given mule deer's fidelity for winter ranges, many of man's activities can disrupt or even eliminate migrations, forcing deer to winter on sub-optimal ranges that may increase their mortality rates. Interstate highways, deer-proof fences, and urbanization represent examples of activities that can disrupt migration patterns. Survival through winter is a tenuous balance between energy conservation and energy expenditure. Activities that increase energy expense likely increase over-winter mortality.

The structure of mule deer populations varies with habitat and population size. Populations at low density (below carrying capacity) tend to have high reproductive and turnover rates and are

dominated by younger animals. Populations with these characteristics are capable of rapid growth. Some populations stabilize at low density because they are susceptible to high mortality during unfavorable conditions. This is typical of populations in marginal habitat.

Populations at high density (near carrying capacity) tend to have low reproductive and turnover rates, and a stable age distribution. Population growth is slow, if it occurs at all. Annual production replaces annual mortality. This type of population is commonly found in stable, well established habitat types, particularly climax forests. A wide spectrum of population structures is found between these 2 extremes.

Overall, mule deer populations statewide have declined since the 1950s and 1960s. It is unlikely that populations will ever increase to those levels again. Mule deer are best adapted to seral, transitional habitat types. Habitat succession is a continual and dynamic process, and those habitats best suited for mule deer cannot be expected to remain indefinitely or even be managed for on a large enough scale to have significant population effects. Recent population declines in parts of southern Idaho that were marked by the 1992-1993 winters are a natural process in mule deer dynamics. Populations are expected to increase given favorable environmental conditions. However, the long-term outlook for mule deer statewide is that of slowly diminishing habitat quantity and quality over time. Maintaining healthy populations with harvestable surplus is expected and will continue; however, populations reminiscent of the “good-old-days” are unrealistic.



The effect of harvest mortality is highly variable in mule deer. Generally, the majority of annual mortality is not hunter-harvest related. Factors such as predation, malnourishment over winter, accidents, and disease are responsible for the majority of deaths in mule deer populations. Therefore, population response tends to be independent of harvest. Exceptions to this rule include antlerless opportunity designed to stabilize or reduce populations and effects of hunter harvest on buck survival and age structure. Hunting seasons designed to offer significantly more opportunity for antlered deer than antlerless deer, or during periods when bucks are vulnerable (rut, winter range), can reduce the proportion of bucks and particularly older bucks in the

population. Buck-only seasons will not limit population growth; however, they can affect the number of older bucks. The Idaho Fish and Game Commission (Commission) established a statewide minimum of 15 bucks per 100 does post-season, primarily as the minimum ratio that hunters would accept. It is unknown what the lower threshold value for buck:doe ratio is where negative impacts on production parameters can occur. However, we believe that the statewide minimum is above that necessary for adequate reproduction.

Proper harvest management for mule deer, given their relative independence to harvest effects, is to adequately monitor populations annually and be responsive to population changes. Liberal seasons can be applied during periods when populations are expanding rapidly and conservative seasons applied when environmental factors are limiting population growth.

This plan represents a statewide change in how we monitor mule deer populations. Historically, harvest parameters and periodic unit-wide surveys were conducted to assess population status. Beginning with this plan, we have established a statewide, uniform approach to monitor mule deer populations on an annual basis, thus being more responsive to population changes. The state has been divided into 22 analysis areas (groupings of Game Management Units) that represent similar habitats, discrete mule deer populations, and/or similar management objectives. With little exception, each analysis area will have at least 1 trend area (winter range) that will be monitored annually. Trend areas have been chosen to be representative of the analysis area as a whole, and should reflect population parameters throughout the grouping of units. Information that will be collected for each trend area includes buck:doe:fawn ratios and abundance. Additionally, radio-collared fawns in several of the trend areas across the state will be monitored to determine over-winter survival and recruitment to spring.

Antlerless harvest thresholds have been established for each of the trend areas (with few exceptions). These thresholds represent trend area population “goals.” We recognize that mule deer populations are primarily a function of the environment rather than any direct Department action. These threshold values have been established to define optimum populations taking into account habitat potential, winter range conditions, harvest opportunity, and depredation concerns. As mule deer populations rise and fall, we will recommend harvest opportunity consistent with these population thresholds.

In addition to monitoring trend area populations, the Department will monitor harvest and the percentage of 4+ points in the harvest relative to minimum criterion established by the Commission (Figure 1). Prior to 1998, the telephone harvest survey provided information for harvest. Beginning in 1998, a statewide mandatory report card system was implemented. Given adequate compliance, more precise data on harvest and antler point class will be available.

### **Antlerless Harvest**

General season antlerless harvest is an option that may allow managers to influence deer numbers and provide added hunting opportunity when population levels allow. Determining whether to have antlerless seasons or the length of a season often results in controversy among hunters and between hunters and wildlife managers. To help reduce disagreement and guide decisions about antlerless harvest, the following decision model was developed. This model was

developed with the intent of an adaptive learning process; as new data become available and knowledge increases regarding deer population response to harvest, refinements will occur.

Three variables are considered in this decision model: population level relative to antlerless threshold values listed for each analysis area, animal physical condition, and winter severity. Population level is determined by annual aerial surveys of trend areas; animal condition is determined at Department check stations and/or through hunter interviews; and winter severity is determined by a severity index or fawn mortality if radio-collared animals are available. Each variable is given a relative score and then these scores are summed and the maximum season framework can then be determined.

This decision model is not designed to dictate when the Department will offer general antlerless opportunity; rather, it is intended to guide discussion amongst all of Idaho's mule deer enthusiasts. Additionally, depredation decisions and subsequent actions are not intended to be influenced by the decision model.

**DECISION MODEL**

	Variable Score		
Population Level	Below Threshold	At Threshold	Above Threshold
	-5	5	15
Animal Condition	Poor	Good	
	0	5	
Winter Severity	Severe, >60% Fawn Mortality	Average, 40-60% Fawn Mortality	Mild, <40% Fawn Mortality
	-5	5	10
<b>TOTAL SCORE</b>		<b>SEASON FRAMEWORK</b>	
<10		No Antlerless Harvest	
10		Controlled Harvest	
15		7 Days	
20		14 Days	

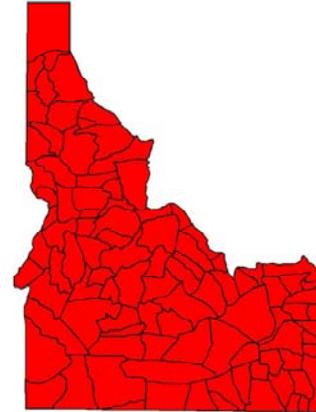
**DECISION MODEL EXAMPLES:**

- |   |  |
|---|--|
| <p>1) Antlerless Harvest Threshold Value = 2000<br/>         Population Survey = 3000 deer observed<br/>         Animal Condition = good<br/>         Winter Severity = avg. 50% fawn mortality<br/>         Total Score = 15 + 5 + 5 = 25<br/>         Maximum Antlerless Framework = 21+ days</p> | <p>2) Antlerless Harvest Threshold Value = 2000<br/>         Population Survey = 1500 deer observed<br/>         Animal Condition = poor<br/>         Winter Severity = severe, 75% fawn mortality<br/>         Total Score = -5 + 0 + -5 = -10<br/>         Maximum Antlerless Framework = 0 days</p> |
|---|--|

## Mule Deer Status, Threshold, & Criterion Statewide

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Statewide	2005	92535	76600
<b>Total</b>		<b>92535</b>	<b>76600</b>



**Buck Status & Minimum Criterion**

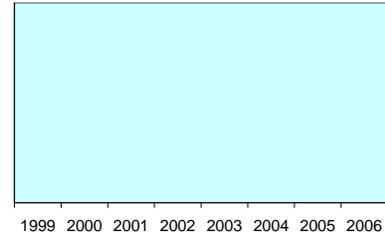
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	24	15
%4+ Pts in the Harves	2003-2005	37	15

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Statewide	NC	NC	NC	NC	NC	NC	NC	NC
Comparable Surveys Total	NC	NC	NC	NC	NC	NC	NC	NC

Note: NC = all surveys not comparable statewide.

**Population Change  
Between Comparable Surveys**



**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	2393	4695	5000	3800	7800	5463	6332	6746
Antlered Harvest	19656	19955	20100	19600	18500	17607	19605	24128
% 4+ Points	38	33	41	26	33	33	42	38
All Deer Hunters	116771	121364	ND	112320	124200	136200	146500	150400
Mule Deer Hunters	ND	ND	ND	ND	ND	ND	ND	94800

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**

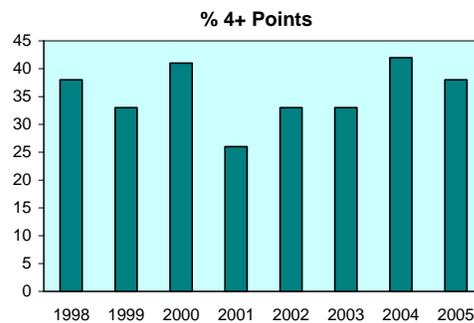
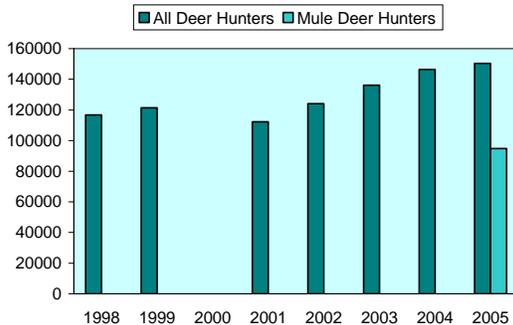
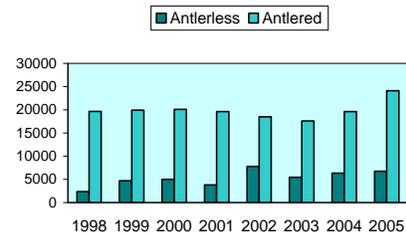


Figure 1. Mule Deer status, threshold, and criterion statewide.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>1</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**PANHANDLE REGION**

**Analysis Area 1 (Units 1, 2, 3, 4, 4A, 5, 6, 7, 9)**

**Management Objectives**

The objective for Analysis Area 1 (Figure 2) is to maintain at least 30% 4-point bucks in the harvest on a 3-year, un-weighted running average. This management objective was easily met for 2003-2005 with 48%.

**Historical Perspective**

U.S. Forest Service (USFS) records and the memories of long-term residents both indicate big game, including mule deer, were relatively scarce in the early 1900s. Large-scale fires between 1910 and 1931 created large brush-fields favored by mule deer. This newly-created habitat, in combination with a major predator reduction program beginning in the early 1920s, allowed sustained growth of mule deer, as well as white-tailed deer and elk populations. Despite a series of severe winters, mule deer populations continued to increase and by the mid-1950s, mule deer were estimated by USFS and Fish and Game biologists to outnumber white-tailed deer in the central part of the analysis area.

Concern about over-browsed winter ranges and an overabundance of deer throughout the state, in general, led to aggressive management to reduce the deer population. By the early 1970s, this goal was accomplished and shorter seasons were authorized. Deer seasons in this analysis area have traditionally allowed hunters to take either mule deer or white-tailed deer under the same tag; however, antlerless harvest is restricted to white-tailed deer only.

**Habitat Issues**

Much of the land in these units is administered by USFS, with private lands mostly restricted to the valley bottoms. Recreation and timber management are the dominant human uses of the landscape in these units. This is in a generally moist region with nearly continuous canopy coverage. Mule deer mix with white-tailed deer during winter, although there is a tendency for mule deer to winter at slightly higher elevations. Mule deer depredations are nonexistent.

Much of the mule deer habitat in this area is the result of large fires during the early 1900s, with some habitat created when large areas were block clear-cut during the 1960s. Currently, both influences have little effect on the landscape, and mule deer habitat can be expected to decline in quantity and quality as succession progresses, turning brush-fields back into timber.

### **Biological Issues**

There is very little known about the ecology of mule deer in the heavily forested environments typical of this analysis area. The timbered nature of the landscape, combined with the relative scarcity of mule deer concentrations, does not allow aerial surveys to be used to monitor mule deer populations in this area. The influence of hunting on mule deer population dynamics is believed to be minor, based on the minor influence of hunting measured on white-tailed deer populations in the same areas. The relatively high proportion of  $\geq 4$ -point bucks within the antlered harvest is consistent with this hypothesis.

### **Inter-specific Issues**

White-tailed deer, mule deer, and elk have sympatric ranges throughout the year in the analysis area. Mountain goat and moose distribution overlaps that of mule deer in some areas. The effects of inter-specific competition are unknown but are felt to be of minor consequence at existing population levels.

### **Predation Issues**

Mountain lion, black bear, bobcat, and coyote exist throughout the area. Recently, a major increase in the mountain lion population has been detected leading to increased public concern over the impacts of predation of future mule deer populations. Predation is likely an important factor in the population dynamics of mule deer in this analysis area. Radio-telemetry studies conducted in the Priest River Basin during the late 1980s and early 1990s indicated this was the case with white-tailed deer.

### **Winter Feeding Issues**

Winter feeding of mule deer has not occurred in these units in the past few years.

### **Information Requirements**

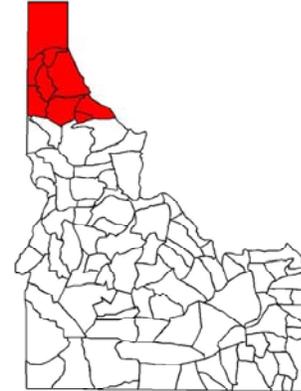
With the exception of check station information, the Department did not collect information specific to mule deer harvest in this analysis area from 1979 to 1995. Hunter effort has only been documented since 1996. Good harvest data is of utmost importance here because aerial surveys are impractical to conduct due to heavy tree cover and only small, scattered pockets of wintering mule deer. Basic ecological information is lacking on mule deer ecology in heavily timbered environments.

## Mule Deer Analysis Area 1 (Units 1, 2, 3, 4, 4A, 5, 6, 7, 9)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



**Buck Status & Minimum Criterion**

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	2003-05	48	30

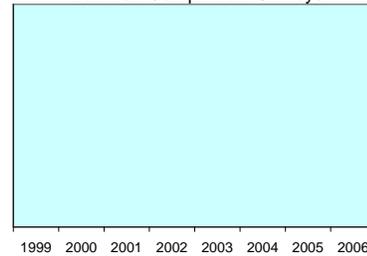
Note: ND = no survey data available, NA = not applicable.

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**

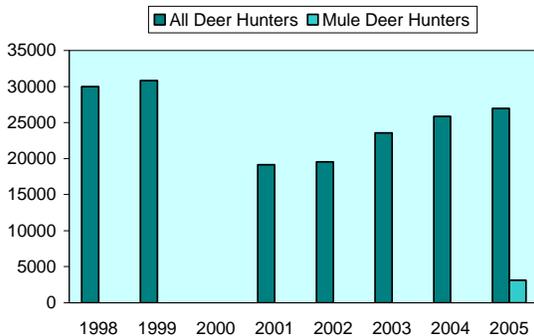
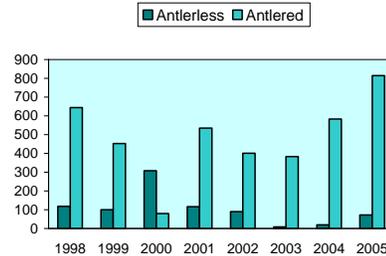


**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	118	100	308	116	90	9	20	72
Antlered Harvest	644	453	80	535	401	383	583	814
% 4+ Points	29	32	42	42	45	42	49	54
All Deer Hunters	30002	30805	ND	19140	19535	23566	25854	26963
Mule Deer Hunters	ND	ND	ND	ND	ND	ND	ND	3118

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**



**% 4+ Points**

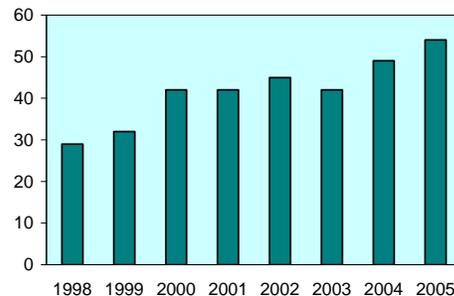


Figure 2. Mule Deer Analysis Area 1.

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**CLEARWATER REGION**

**Analysis Area 2 (Units 8, 8A, 10, 10A, 12, 15, 16)**

**Management Objectives**

Given the relative lack of good mule deer habitat, low mule deer populations, and priorities placed on white-tailed deer and elk, no population trend areas nor antlerless harvest threshold levels will be established for Analysis Area 2 (Figure 3). The management objective will be limited to maintaining at least 30% 4-point bucks in the harvest.

**Historical Perspective**

Mule deer populations in this analysis area were historically low. Accounts from Lewis and Clark during the early 1800s suggested that very few animals were found throughout Clearwater River country. Populations probably did not change much until the large fires of the early 1900s that converted large expanses of unbroken forest into a mosaic of successional vegetation types. Populations probably peaked during the 1930s-1950s as a result of new, high-quality habitat and lack of competition by other ungulates. As elk and white-tailed deer populations increased and habitat changes including succession, development, and loss of key winter ranges occurred, mule deer populations likely decreased. Information derived from estimates made by Department wildlife managers suggested mule deer populations declined from around 2,000 in 1960 to about 600 in 1990.

Historically, white-tailed deer and mule deer have been managed as a “single species” with a single general season harvest framework for both species. In 1973, the Department began to offer some species-specific seasons in Clearwater Region. In 1998, the Clearwater Deer Tag was established to address concerns over trespass complaints. This season framework was continued through the 2004 season. Beginning in 2005, the Clearwater Deer Tag was modified slightly and renamed the White-tailed Deer Tag to provide more flexibility for Idaho hunters while maintaining protection against trespass problems. As part of this new approach, restrictions on the Regular Deer Tag were relaxed, allowing it to again be used in the Clearwater Region through November 3.

## **Habitat Issues**

This analysis area varies from the highly productive Palouse Prairie to the timbered ridges and mountainous terrain of upper Clearwater River. In Units 8 and 8A, dry-land agriculture began in the 1880s. Currently, non-forested land is tilled and only small patches of perennial vegetation remain. Farmland in Units 8 and 8A has provided high-quality forage for deer. The flat terrain, low-elevation abundance of meadows and high productivity of the land make Units 8 and 8A highly productive for wildlife, but with a high likelihood of conflict with humans.

Units 10, 10A, 12, 15, and 16 are predominately timbered, with the majority of ownership being private timber companies, IDL, or USFS. Most private ownership is at lower elevations along the breaks of Clearwater River. Timber harvest began in Unit 10A during the early 1900s and increased dramatically in the 1970s. In 1971, Dworshak Reservoir flooded approximately 45 miles of North Fork Clearwater River in Unit 10A and permanently removed thousands of acres of prime low-elevation big game winter range. Until the 1930s, wildfire was the primary habitat disturbance mechanism in Units 10, 12, and 16. Between 1900 and 1934, approximately 70% of the Lochsa River drainage was burned by wildfires. From the 1920s to 1990, thousands of miles of roads were built for timber harvest in Units 10A, 10, 12, 15, and 16. In 1964, most of the southern portion of Unit 12 was designated as part of the Selway-Bitterroot Wilderness.

Construction of new home-sites has decreased available mule deer winter range. This analysis area is characterized by high road densities in the western portion and backcountry and limited access except for trails in the eastern portions. Noxious weeds such as yellowstar thistle and spotted knapweed are out-competing native vegetation on mule deer spring and winter ranges.

Depredations have been rare in this area due to low mule deer populations. Mule deer densities within agricultural areas of Analysis Area 2 have rarely exceeded landowner tolerance levels. Currently, there is little depredation concern involving mule deer in this analysis area.

## **Biological Issues**

Although mule deer have never been numerous in this area, small populations do still exist where good quality habitat is available. These units are managed mainly for elk and white-tailed deer populations. Since habitats within this analysis area have low potential for supporting substantial numbers of mule deer, management emphasis will be placed on maintaining populations.

## **Inter-specific Issues**

A decline in cattle grazing and successive years of drought during the late 1980s and early 1990s may have contributed to rangeland changes. Intensive logging has created extensive brushy areas on winter ranges. These shifts in vegetation have resulted in increases in white-tailed deer and elk populations, creating possible competition with mule deer. Current research at Starkey suggests that elk may displace mule deer.

## **Predation Issues**

Mountain lion numbers increased in this analysis area during the early and mid-1990s, but more recently have leveled off and or declined in most of these units. A likely reason for the initial increase was probably due to a dramatic increase in white-tailed deer numbers. Black bear numbers have remained relatively static throughout most of this area for the past decade. Coyote numbers remain high and may contribute to some fawn mortality. Increases in road densities during the past several decades have contributed to increased predator hunting opportunities. Wolves have established themselves in Units 10, 10A, 12, and 15 due to reintroduction efforts by USFWS and likely contribute to deer mortality.

## **Winter Feeding Issues**

Emergency winter feeding of mule deer has not occurred in recent history in this analysis area.

## **Harvest**

Total harvest in Analysis Area 2 units in 2005 was estimated at 205 mule deer based on harvest report cards. This represents a 21% decrease in harvest from 2004. Total deer hunter numbers in Analysis Area 2 were estimated at 19,361, with 809 hunters being identified as mule deer hunters. Harvest statistics for Analysis Area 2 units tend to fluctuate, probably due to low sample sizes for mule deer harvest and the fact that most hunters target whitetails.

## **Information Requirements**

Harvest and aerial survey information for this analysis area are limited. Low mule deer numbers make it difficult to assess population levels with aerial surveys. Incidental mule deer observations will continue to be recorded during aerial surveys for elk. Improved harvest information may be the best way to assess population trends in this area. Prior to 1994, all harvest data was for mule deer and white-tailed deer combined. Future data collection efforts should continue to be separate for both deer species.

## Mule Deer Analysis Area 2 (Units 8, 8A, 10, 10A, 12, 15, 16)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
None	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	2003-05	52	30

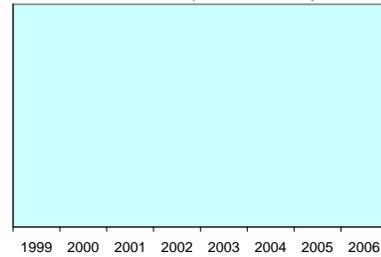
Note: ND = no survey data available, NA = not applicable.

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	47	52	42	189	79	79	54	71
<b>Antlered Harvest</b>	225	226	186	186	180	187	207	134
<b>% 4+ Points</b>	27	22	39	54	41	49	55	53
<b>All Deer Hunters</b>	3674	3949	ND	16133	16205	19439	18100	19361
<b>Mule Deer Hunters</b>	ND	ND	ND	ND	ND	ND	ND	809

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest

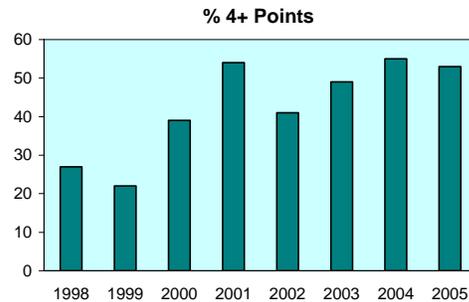
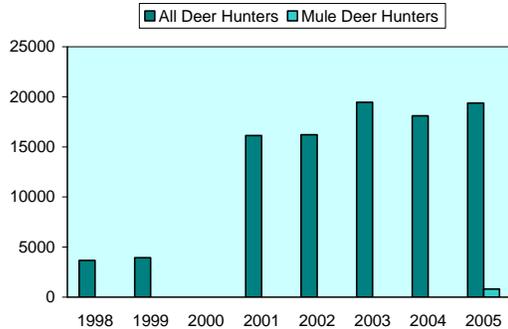
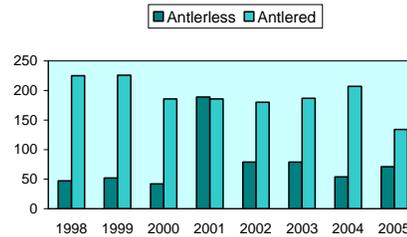


Figure 3. Mule deer Analysis Area 2.

## **Analysis Area 3 (Units 11, 11A, 13, 14, 18, 23)**

### **Management Objectives**

Given the limited amount of aerial survey population information available for Analysis Area 3 (Figure 4), an antlerless harvest threshold has not been established. However, the Department will make efforts to annually monitor the newly established White Bird trend area whenever flight budgets permit, and to consider developing a threshold value. The current emphasis is to increase mule deer numbers and buck quality; therefore, the Department will recommend restrictive antlerless opportunity until improved population information is available and a threshold is established. Antlered controlled hunts were established in 1998 in order to improve buck numbers and quality. An additional objective is to maintain at least 30% 4-point bucks in the harvest.

### **Historical Perspective**

Mule deer populations in this analysis area were historically low. Accounts from Lewis and Clark during the 1800s suggested that very few animals were found throughout Clearwater River country. Populations probably did not change much until the large fires of the early 1900s that converted large expanses of unbroken forest into a mosaic of successional vegetation types, and large numbers of domestic livestock altered grass-dominated habitats into greater amounts of shrub cover. Populations probably peaked during the 1930s-1960s as a result of new, high-quality habitat and lack of competition by other ungulates. As elk and white-tailed deer populations increased and habitat changes including succession, development, and loss of key winter ranges occurred, mule deer populations likely decreased. Information derived from estimates made by Department wildlife managers suggests mule deer numbers in this area declined from around 23,000 in 1960 to about 15,000 in 1990.

Historically, white-tailed deer and mule deer have been managed as a “single species” with a single general season harvest framework for both species. In 1973, the Department began to offer some species-specific seasons in Clearwater Region. In 1998, the Clearwater Deer Tag was established to address concerns over trespass complaints. This season framework was continued through the 2004 season. Beginning in 2005, the Clearwater Deer Tag was modified slightly and renamed the White-tailed Deer Tag to provide more flexibility for Idaho hunters while maintaining protection against trespass problems. As part of this new approach, restrictions on the Regular Deer Tag were relaxed, allowing it to again be used in the Clearwater Region through November 3.

### **Habitat Issues**

Habitat productivity varies widely throughout the analysis area with steep, dry, river-canyon grasslands having low annual precipitation, to higher elevation forests having good habitat productivity and greater precipitation. Late successional forest cover types have become fragmented within the area. Various weeds and non-native grasses such as yellowstar thistle and cheatgrass have disturbed expansive acreages of grassland cover types in this analysis area. Road density is moderate and access is restricted in many areas. This results in medium to low

vulnerability of big game to hunters, especially within the Snake River and Salmon River canyons below White Bird.

Historically, sheep and cattle ranchers homesteaded the canyon lands in this analysis area, while farmers settled prairie land. Around the turn of the century, northern Unit 11 and the prairie land in Unit 11A was under intensive use for dry-land agriculture and numerous orchards were planted in the Lewiston area. As settlement increased, the forested portions of the area were intensively logged, especially on private land. The forests were frequently high-graded, and the existing forests still show the scars. In addition, intensive-grazing practices degraded many meadow areas and canyons, allowing invasion of noxious weed species, especially in drier areas.

This analysis area contains large tracts of both privately- and publicly-owned lands. Units 11 and 11A are mostly private land except for the Craig Mountain Wildlife Management Area (WMA) along the Snake and Salmon rivers. Most of Unit 13 has been under private ownership since settlement and is managed for agriculture and livestock. Historically, sheepherders ran their flocks in the canyons of Units 14, 18, and 23, and logging occurred in the forested areas of these units. Units 14 and 18 are two-thirds public lands with the remaining private land located at lower elevations along Salmon River. The majority of Hells Canyon Wilderness Area, designated in 1975, is in Unit 18. Unit 23 is mostly public land with some private land located at lower elevations along Little Salmon River.

Grazing by cattle is gradually decreasing in the analysis area due to reductions in USFS and BLM allotments, along with land ownership shifting from private to public. Several large ranches remain in private ownership with limited access. Available mule deer winter range is being encroached upon by construction of summer homes and resorts along Snake and Salmon rivers.

Landowners registered enough complaints of mule deer causing damage to small grain, legume, and hay crops during the 1980s that a special mule deer season was developed in the Waha and Maloney Creek areas of Unit 11. This season helped reduce damage complaints and the Maloney Creek portion of the hunt was eliminated in 1997 due to the decline of mule deer in southern Unit 11. This decline was also experienced in agricultural areas of Units 11A, 13, 14, 18, and 23. Landowner complaints in Unit 11A relate to damage caused to rapeseed, bluegrass, and winter wheat. Complaints in Units 13, 14, 18, and 23 involve damage to irrigated alfalfa, orchards, standing hay, and stored hay on agricultural land along the Salmon River breaks. Currently, there are only a few depredation concerns involving mule deer in Analysis Area 3. Since 1998, antlerless mule deer have increased in areas surrounding agricultural fields, especially in portions of Units 11A and 14.

During 2000, fire burned a large portion of Unit 11 along the Salmon and Snake rivers from Maloney Creek down to Dough Creek and all the way to the ridgeline in most places. This fire alteration on the landscape is just now being analyzed for impacts. Grasses and native vegetation are being replanted and many of the bulldozer lines recovered. Even so, it will be years before the shrub component fully recovers and decades before conifer regeneration provides thermal and hiding cover.

## **Biological Issues**

Poor productivity and declining mature buck numbers as reflected in decreasing fawn:doe:buck ratios, a decrease in total numbers, and a 50% decrease in harvest from the late 1980s to the mid-1990s resulted in concerns for the mule deer herds in these units. In 1992, aerial surveys in Units 14 and 18 indicated buck:doe ratios at 7:100 and 13:100, respectively. These concerns led to the implementation of antlered-only controlled hunts beginning in 1998 in Units 11, 11A, 13, 14, and 18.

A December 1999 sightability survey in Unit 14 resulted in an estimate of 2,622 mule deer with a buck:doe:fawn ratio of 18:100:50. Unit 14 was resurveyed in December 2004. The survey resulted in an estimate of 2,814 total mule deer with a buck:doe:fawn ratio of 34:100:61.

The White Bird Trend Area survey conducted in December 1999 indicated a total population of 1,725 mule deer. This represented a 26% decrease in total numbers from the same sub-units flown during the early 1990s. Subsequent White Bird trend area surveys conducted during the 2001-2002 and 2002-2003 winters indicated a stable population with increasing buck:doe (22:100 average) and fawn:doe (53:100 average) ratios. The survey conducted in 2003-2004 had similar buck:doe (23:100) and fawn:doe (47:100) ratios. However, the total estimate increased by 54 percent over the 2002-2003 count to 2,654 mule deer. It is likely that this increase can be attributed primarily to a change in deer distribution (due to a significant snowfall event just prior to the survey) rather than an increase in the deer population. The 2005 survey yielded results similar to pre-2004 levels with a total estimate of 1,937 with a buck:doe:fawn ratio of 20:100:63.

In 1990, controlled hunt permit numbers in Unit 11 were reduced significantly. Since then, fawn:doe:buck ratios have improved along with percent 4-point bucks and total buck numbers. Due to declines in mule deer populations, Units 11A, 13, 14, and 18 were changed from general hunts to controlled hunts in 1998. Unit 11A was surveyed specifically for mule deer for the first time during the 2003-2004 winter. A total of 1,798 mule deer were estimated with a buck:doe:fawn ratio of 20:100:52.

The deer population in Unit 23 increased dramatically in the late 1980s but subsequently declined in the severe winter of 1992-1993; it appears to be increasing since then. General hunting opportunities have been maintained in Unit 23.

## **Inter-specific Issues**

A decline in cattle grazing and successive years of drought during the late 1980s and early 1990s may have contributed to rangeland shifting from forbs to grasses. Intensive logging has created extensive brushy areas on winter ranges. These shifts in vegetation have resulted in increases in white-tailed deer and elk populations, creating competition with mule deer on both winter and summer ranges.

## **Predation Issues**

Mountain lion harvest has increased slightly in this area during the past several decades and most likely reflects an increase in mountain lion numbers, which may be contributing to lower deer densities. Bear populations and harvest have remained relatively stable in this analysis area. The semi-arid climate and sparse timber limit the extent of highly productive bear foods in Units 11, 11A, 13, 14, and 18 and does not allow for bears to reach the densities they do in more timbered habitats such as Unit 23. However, due to extensive old homestead sites in these units, numerous fruit trees and shrubs were planted and remain in the areas today, providing excellent bear foods in autumn. Some of the largest bears in the state annually come from Unit 11. Bears are not thought to have an effect on deer recruitment in this analysis area. Wolves have not yet established themselves in this analysis area except in Units 14 and 18. They can be expected to establish more of a presence in the future.

## **Winter Feeding Issues**

Emergency winter feeding of mule deer has not occurred in this analysis area in recent history.

## **Harvest**

Total harvest in Analysis Area 3 in 2005 was estimated at 1,090 mule deer based on mandatory harvest report cards. This represents a 9% decrease in harvest from 2004 (1,204) and is nearly identical to the previous 5-year average of 1,086. Total hunter numbers were estimated at 9,087 with 2,519 being identified as mule deer hunters.

## **Information Requirements**

Harvest and aerial survey information for this analysis area are limited. Improved estimates are needed for yearly harvest data. Previous to 1994, all harvest data was for mule deer and white-tailed deer combined. Data should continue to be separated for both deer species. Initiation of controlled hunts in Units 11A, 13, 14, and 18 in 1998 is improving harvest information. Units 11 and 14 are the only units within this analysis area that have been flown for unit-wide winter-range surveys since 1994. The aerial survey of White Bird Trend Area was first flown in December 1999. The intent is to fly the White Bird Trend Area each December to more accurately establish trends in deer numbers and herd composition for this area (as flight budgets and prioritization permit).

## Mule Deer Analysis Area 3 (Units 11, 11A, 13, 14, 18, 23)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
White Bird (13, 14, 18)	2005	1937	NA
<b>Total</b>		<b>1937</b>	<b>NA</b>

Note: NA = not applicable.



### Buck Status & Minimum Criterion

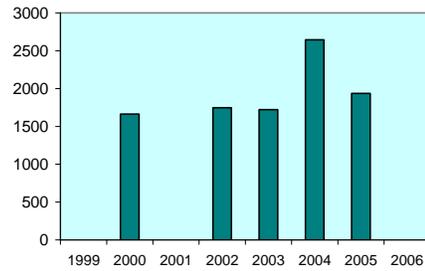
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	20	15
%4+ Pts in the Harvest	2003-05	56	30

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
White Bird (13, 14, 18)	ND	1662	ND	1747	1722	2645	1937	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>1662</b>	<b>ND</b>	<b>1747</b>	<b>1722</b>	<b>2645</b>	<b>1937</b>	<b>ND</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	33	33	93	277	395	94	229	177
Antlered Harvest	724	739	821	882	865	803	975	913
% 4+ Points	51	52	48	52	55	50	55	63
All Deer Hunters	2234	2119	ND	8375	3127	2726	8278	9087
Mule Deer Hunters	ND	2516						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest

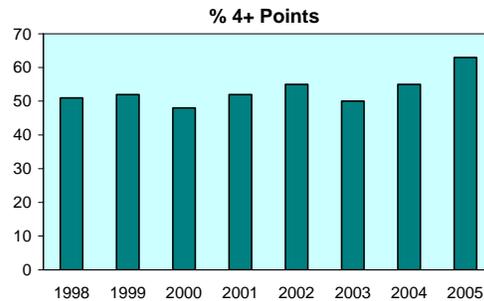
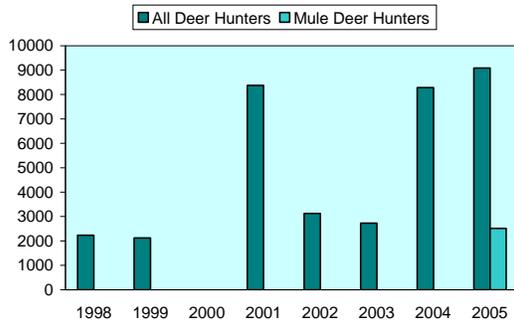
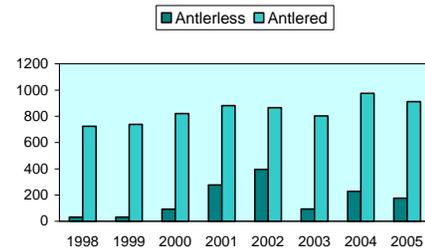


Figure 4. Mule deer Analysis Area 3.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>3</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**SOUTHWEST REGION**

**Analysis Area 6 (Units 22, 24, 31, 32, 32A, 33, 34, 35, 39)**

**Management Objectives**

Objectives for Analysis Area 6 (Figure 5) are to maintain buck harvest above 30% 4+ points and maintain buck:doe ratios from herd composition surveys above the statewide minimum of 15 bucks per 100 does. Antlerless harvest will be restricted when trend area deer populations are below threshold levels of 3,700 deer in Unit 22, 3,400 in Unit 31, 2,000 in Unit 33, and 20,000 in Unit 39. Conversely, liberal antlerless harvest will be encouraged when deer numbers exceed these threshold values. These values represent intermediate populations between current status and numbers observed during the late 1980s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agri-businesses.

**Historical Perspective**

These units represent the major deer units in Southwest Region. In the late 1800s, deer herds were reduced by extensive meat hunting throughout the area. Hunting was restricted in the early 1900s. The subsequent increase in deer herds led to large winter mortality in some areas, extensive winter feeding programs, and concern for the status of vegetation on deer winter range.

Over one-third of Idaho's population lives near these big game units. These units provide deer hunting opportunity, but that opportunity has to be closely regulated to prevent over-harvest. This is particularly true for does throughout the area and for bucks in the open sagebrush habitats where they are more vulnerable.

**Habitat Issues**

The habitats range from the Snake River breaks to sagebrush ranges in the Payette and Weiser River drainage to the Sawtooth Mountain Range. The majority of mule deer summer on land administered by USFS. Mule deer typically spend the summers in forest habitats and move to lower sagebrush/grass winter ranges. Low-elevation winter ranges consist of more private land

than summer ranges. Logging, grazing, and fires have substantially affected the condition of these ranges. Logging activity has increased shrub fields and provided increased forage for mule deer. The effect of fire on summer ranges has been positive, improving forage conditions for deer. Effects of fire on low-elevation winter ranges have been more negative. In many cases, fires have reduced the shrubs that deer are dependent on during winter. An exception has been some winter ranges burned with cooler spring fires to maintain important shrubs species such as bitterbrush and sagebrush. The proliferation of noxious weeds poses a threat to mule deer winter range.

In the Boise area, expansion of home developments onto mule deer winter range has been a significant problem. This urban development is impacting wintering areas of one-third of the mule deer herd in Unit 39.

### **Biological Issues**

Population performance in this area is closely associated with winter severity and body condition of deer when entering the winter period. Buck harvest parameters are at 30% 4+ points. Aerial survey information indicates buck:doe ratios are near 15:100 or below in most units.

### **Inter-specific Issues**

Elk densities are currently high throughout most of the area. These high elk densities may be limiting the ability of the area to support mule deer. There are some white-tailed deer in Units 22, 24, 32, 32A, and 33. White-tailed deer populations do not seem to be expanding their distribution. Intensive cattle and sheep grazing are present on much of the range. Competition among species is largely unknown.

### **Predation Issues**

Bobcats, coyotes, mountain lions, and black bears occur throughout the analysis area. Additionally, in recent years presence of wolves has been documented in all units in Analysis Area 6. Multiple wolf packs occupy Units 24, 33, 34, 35, and 39. The impact of these large predators on mule deer is largely unknown.

### **Winter Feeding Issues**

Winter feeding has been fairly common in these units. In the Garden Valley area (Unit 33), winter feeding occurs about 2 out of 5 years. In other areas, extensive winter feeding occurs less often, the most recent being winter 1992-1993.

Winter feeding operations have been widespread and controversial throughout these units. During the last 10 years, winter feeding operations have centered around the Boise Front, Garden Valley, and the Weiser/Brownlee Reservoir areas.

## **Information Requirements**

The large area in these units necessitates several trend areas. These trend areas need to be surveyed on an annual basis to determine the status of the herd. There is little information on herd composition in many of these units. This data collection effort needs to be increased. Information on inter-specific competition is also needed.

## Mule Deer Analysis Area 6 (Units 22, 24, 31, 32, 32A, 33, 34, 35, 39)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
(22)	2006	4809	3700
(31)	2004	3834	3400
Garden Valley (33)	2004	1546	2000
Boise Front (39)	2005	26520	20000
<b>Total</b>		<b>36709</b>	<b>29100</b>



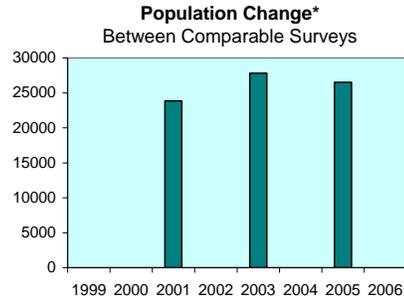
**Buck Status & Minimum Criterion**

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (22)	2005	14	15
(32A)	2003	19	15
Boise Front (39)	2005	28	15
%4+ Pts in the Harvest	2002-04	25	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
(22)	ND	4091	4318	3725	3193	4295	ND	4809
(31)	ND	3826	4450	3732	3207	3834	ND	ND
Garden Valley (33)	1869	ND	ND	ND	ND	1546	ND	ND
Boise Front (39)	ND	ND	23861	ND	27800	ND	26520	ND
<b>Comparable Surveys Total</b>	<b>0</b>	<b>0</b>	<b>23861</b>	<b>0</b>	<b>27800</b>	<b>0</b>	<b>26520</b>	<b>0</b>

Note: ND = no survey data available. Only the Boise Front Trend Area numbers appear in the Population Change chart.



**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	98	2081	2045	2746	2764	2317	2256	2951
<b>Antlered Harvest</b>	6638	6397	5127	5970	4611	4714	5109	6726
<b>% 4+ Points</b>	26	18	25	21	21	21	32	29
<b>All Deer Hunters</b>	23485	29021	ND	26365	26322	28216	27821	28483
<b>Mule Deer Hunters</b>	ND	ND	ND	ND	ND	ND	ND	27373

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**

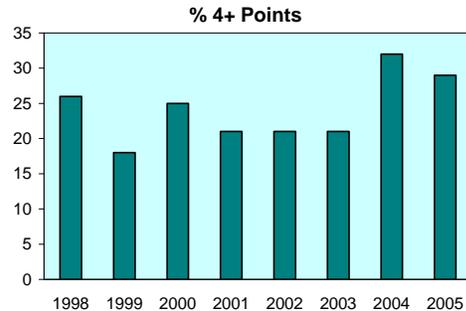
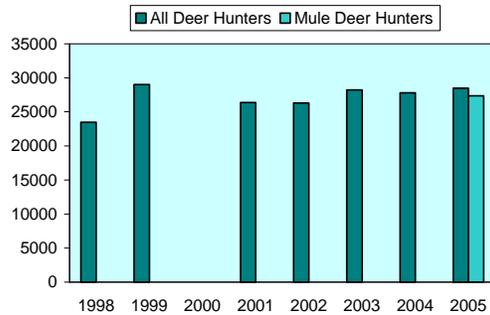
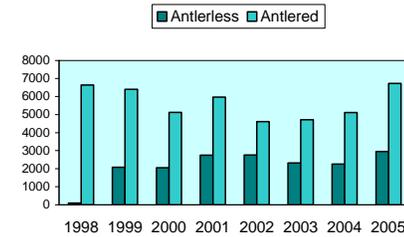


Figure 5. Mule deer Analysis Area 6.

## **Analysis Area 11 (Unit 38)**

### **Management Objectives**

The objective for Analysis Area 11 (Figure 6) is to maintain the deer population at or below its current level. The area is not likely to become a major deer hunting destination. With limited sportsman's desire for hunting in this unit, minimizing agricultural depredation is the major goal.

### **Historical Perspective**

This unit contains the irrigated farmland and orchards in the Treasure Valley. There is some high desert habitat in the Snake River Birds of Prey Area. The majority of the deer are associated with the Boise, Snake, and Payette River corridors and nearby orchards and vineyards. With the density of residences and developed agricultural properties in the area, big game hunters have been restricted to short-range weapons. The portion of Unit 32 in the Emmett Valley has similar characteristics to Unit 38 and is managed under the same management goals.

Relatively few hunters specifically plan their deer hunts for Unit 38. Most deer are harvested incidentally to upland bird or waterfowl hunting. The current season (Appendix A) is either-sex, short-range weapons only, for 44 days. The harvest has remained around 200 deer.

### **Habitat Issues**

The majority of land is in private ownership. High value crops produced by agriculture make deer depredations a major factor. Deer depredation complaints are common. Depredation hunts and kill permits are used on a regular basis in this area.

### **Biological Issues**

The agricultural nature of this unit provides excellent habitat for good deer production. Good deer production is not desired in this unit due to high incidence of deer depredation. Deer populations in this unit are managed with liberal seasons to maintain low densities.

### **Inter-specific Issues**

Mule deer are the primary species in the unit. White-tailed deer were reintroduced onto the C.J. Strike and Fort Boise WMAs in the 1980s. Whitetails are well established and contribute to some depredation problems.

### **Predation Issues**

Coyotes, bobcats, domestic dogs, and some mountain lions are the significant large predators in this area. There are no wolves or black bears in the area. The impact of predators on deer is largely unknown but does not present a major management issue.

### **Winter Feeding Issues**

Winter feeding has not been required in this area because of the mild climate in the Treasure Valley.

### **Information Requirements**

This area will not be managed to provide a significant amount of deer hunting opportunity. The primary need for deer management in this area are techniques to limit damage to agricultural crops in an economically realistic way.

## Mule Deer Analysis Area 11 (Unit 38)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	2002-04	21	25

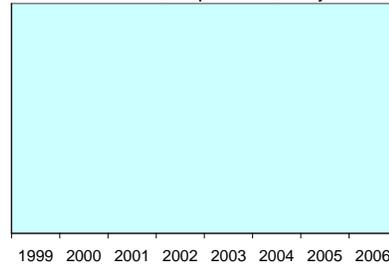
Note: ND = no survey data available, NA = not applicable.

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	72	213	109	153	104	111	116	134
Antlered Harvest	72	134	93	174	127	133	111	122
% 4+ Points	36	14	22	20	24	20	19	16
All Deer Hunters	427	860	ND	1304	1068	1224	875	864
Mule Deer Hunters	ND	845						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest

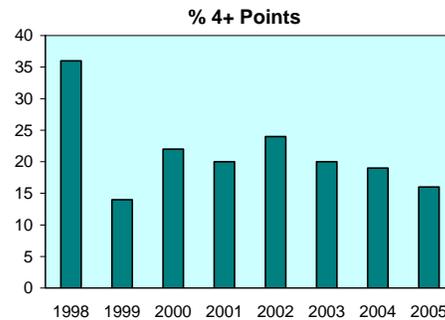
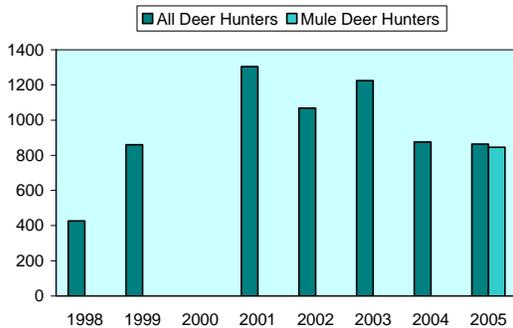
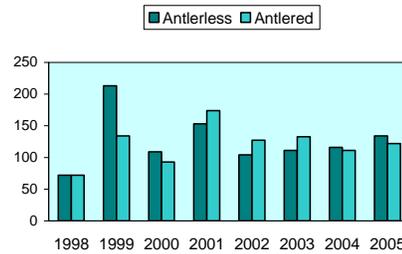


Figure 6. Mule deer Analysis Area 11.

## **Analysis Area 12 (Units 40, 41, 42, 46, 47)**

### **Management Objectives**

Post-season buck:doe ratios for Analysis Area 12 (Figure 7) will be maintained at a minimum of 25 bucks per 100 does and the percent 4+ points in the harvest will be maintained at no less than 35%. The lack of trend area surveys makes it difficult to set measurable population objectives for this area. Usually, the level of depredation complaints is the key indicator of the need to consider antlerless harvest.

### **Historical Perspective**

Units 40, 41, 42, and 47 have traditionally supported substantial deer herds and provided hunting opportunity for southern Idaho hunters. Unit 46 has never supported a large resident deer herd, but nonetheless has provided important general hunting opportunity. During the 1930s and 1940s, deer populations were low and hunting opportunities were very limited in these units. By the 1950s and 1960s, deer numbers had increased to very high levels and depredation complaints were common. Deer seasons were liberalized and, in some years, extended to mid-December. Hunters who ventured into Owyhee County could take their pick of “a deer behind every bush.” In 1955, an either-sex deer hunt with a 2-deer bag limit was authorized in parts of Area 12 and 5,500 deer were harvested. Liberal hunting seasons continued into the early 1970s when an area-wide decline in deer populations resulted in more conservative hunting seasons. During the 1980s, harvest averaged 1,500 bucks and a few hundred does per year. Since 1991, hunters have been restricted to taking 2-point or smaller bucks during the general season in Units 40, 41, and 42. Unit 47 has been managed with controlled hunts since 1970, and general antlered-only seasons have been maintained in Unit 46. All Analysis Area 12 units have controlled hunts for any buck in November.

These deer herds use habitat in Oregon, Nevada, and Idaho. An unknown portion of the deer herd in western Owyhee County migrates to Oregon to winter. On the eastern side of Owyhee County, substantial numbers of deer migrate north from Nevada to winter in Idaho. This interstate mixing of deer populations makes evaluation of the status of Idaho’s herd very difficult.

### **Habitat Issues**

About 90% of the land area is in public ownership. BLM manages the majority of the area, and IDL administers smaller segments. The area is primarily high-desert habitat dominated by sagebrush-grass and juniper cover types. Isolated mountain ranges and foothill areas include mixed mountain shrub and aspen types.

There have been several major changes in mule deer habitat over the last 30 years. Fires have destroyed large portions of winter ranges in Units 41 and 46. Burned areas are now dominated by planted crested wheatgrass or cheatgrass and have little browse to support wintering deer. In recent years, fire rehabilitation efforts have included sagebrush where deer habitat range was a concern. In Unit 42, there has been a substantial encroachment of juniper into former summer

and winter ranges. In several areas where juniper has replaced more important browse species, the number of wintering deer has been reduced from several thousand to a few hundred deer.

### **Biological Issues**

Very little mule deer aerial survey data exists for this analysis area.

### **Inter-specific Issues**

Currently, elk populations are relatively small in this area. There are fewer than 100 resident elk east of Highway 51 and about 500 elk on the west side of Owyhee County. At its present population level, this elk herd does not constitute a significant management concern for mule deer.

Livestock grazing is and has been the predominant land use in the area. In the early part of the twentieth century, excessive grazing by livestock combined with fire suppression severely altered plant communities to favor shrubs, and mule deer benefited. Extensive areas have burned during the past several decades and much of the sagebrush steppe was reseeded to crested wheatgrass or was invaded by cheatgrass. The reestablishment of sagebrush to benefit deer may conflict with livestock grazing interests in some areas. Livestock numbers are currently significantly less than during the early part of the twentieth century. Serious conflicts are localized on winter ranges and critical riparian areas rather than widespread.

### **Predation Issues**

Coyotes, bobcats, and mountain lions are the large predators in this area. There are no wolves or black bears in the area.

### **Winter Feeding Issues**

The remoteness of winter deer herds has limited the demand for and the ability to conduct supplemental winter feeding. No winter feeding has occurred for many years in these units. The Department will work with the Regional Winter Feeding Advisory Committee to discourage unsanctioned winter feeding and to identify any situations where feeding may be appropriate.

### **Information Requirements**

The primary data need for these units is population information. Winter ranges contain some mixture of deer from Oregon/Idaho or Nevada/Idaho. Herds can be surveyed in winter, but status of these wintering animals needs to be allocated to the appropriate hunting season herds. This lack of population information on these important deer herds is a concern to managers.

## Mule Deer Analysis Area 12 (Units 40, 41, 42, 46, 47)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	25
%4+ Pts in the Harvest	2002-04	29	35

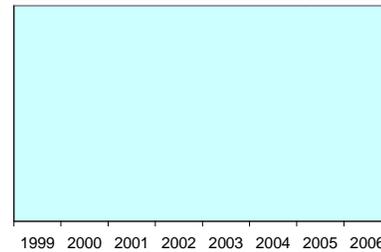
Note: ND = no survey data available.

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>0</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	45	26	48	146	149	27	208	200
<b>Antlered Harvest</b>	1152	1405	1247	1196	1199	1195	1251	1559
<b>% 4+ Points</b>	37	28	19	21	21	18	49	22
<b>All Deer Hunters</b>	3862	3937	ND	3935	4260	4038	4546	4432
<b>Mule Deer Hunters</b>	ND	4318						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters. General hunts in units 40, 41, 42 are for 2-point bucks only.

### Harvest

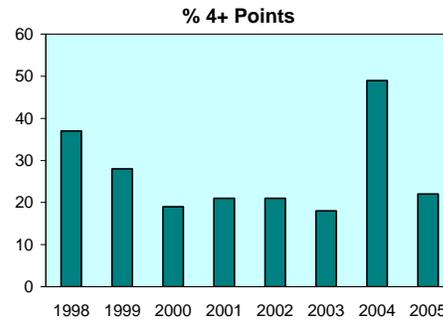
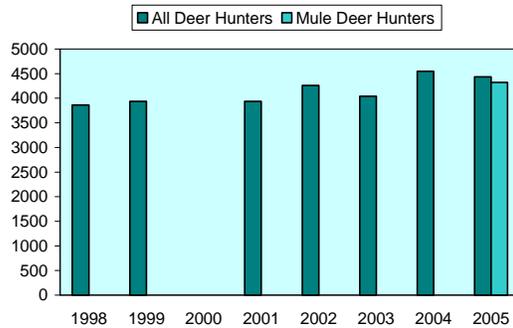
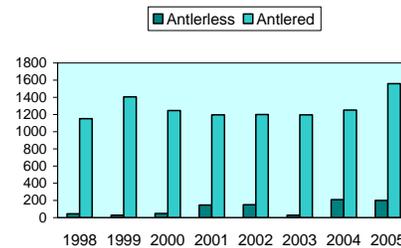


Figure 7. Mule deer Analysis Area 12.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>4</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b> <u>July 1, 2005 to June 30, 2006</u>			

**MAGIC VALLEY REGION**

**Analysis Area 7 (Units 43, 44, 45, 48, 52)**

**Management Objectives**

An objective for Analysis Area 7 (Figure 8) is to restrict antlerless harvest when trend area populations are less than 5,000 deer; conversely, antlerless harvest will be considered when deer numbers exceed this threshold value. Additionally, deer populations will be managed to maintain or exceed 20 bucks per 100 does in the pre-winter population and >45% bucks with 4-point or larger antlers in the October harvest.

**Historical Perspective**

During the late 1800s and early 1900s, mule deer populations in Analysis Area 7 were reduced to very low levels by unregulated harvest. Miners, market hunters, and other inhabitants of the area relied heavily on deer and elk meat. Mule deer habitat was also greatly altered during this period by excessive livestock use. Dense shrubs fields, dominated by sagebrush and bitterbrush, replaced plant communities dominated by grasses. This pronounced change in habitat combined with restrictions on deer hunting prompted increases in deer numbers. Hunting seasons were closed or very conservative through 1940. At that time, winter ranges were considered to be over-browsed and in a downward trend, and hunting seasons were designed to reduce deer numbers. Deer numbers remained strong through the 1950s and 1960s. Following a significant decline in numbers during the mid-1970s, deer populations increased again during the late 1980s, a period of prolonged drought conditions and mild winters. During winter 1992-1993, deer populations declined by approximately 50%. Deer had entered the winter in poor physiological condition and high over-winter mortality of fawns and bucks occurred. Since 1993, deer numbers have increased in this area but remain below the population levels of the late 1980s and early 1990s.

Harvest management includes both general (Units 43 and 48) and controlled (Units 44, 45, and 52) hunting seasons. The controlled hunts are very popular with sportsmen desiring quality, high hunter success, low hunter density, and the opportunity to observe many deer. The Bennett Hills (Unit 45) has had controlled hunting seasons since 1972 and has the most highly sought-

after mule deer permits in Idaho. Drawing odds for the November buck hunt have averaged 1:50. After the 1993 decline, liberal antlerless hunts were maintained in Units 43, 44, and 45 to slow deer population growth and allow recovery of deteriorated winter ranges in Unit 45. Presently, antlerless harvest is used to maintain about 8,000 deer in the King Hill trend area. At this population level, which is less than the maximum biological carrying capacity, depredations are minimal, winter range use is appropriate, and reproductive performance is higher than many other southern Idaho deer herds.

Units 45 and 52 provide most of the winter habitat for deer in this analysis area. Important winter ranges include: Black Butte Hills (Unit 52), Picabo Hills (Unit 52), and King Hill (Unit 45).

### **Habitat Issues**

This analysis area encompasses about 5,487 mi<sup>2</sup> of which 24% is managed by USFS, 49% by BLM, 5% by IDL, and 22% is private land.

Most of Unit 52 and the southern portion of Unit 45 is primarily arid semi-desert dominated by sagebrush-grass. The Mount Bennett Hills in the northern portion of Unit 45 is a low range of mountains or high plateaus consisting of sagebrush-grass and mixed mountain shrub communities with small pockets of aspen and Douglas fir on northern exposures and more mesic sites. Units 43, 44, and 48 include the Soldier, Boulder, and Smoky Mountains. Mountain shrub and mountain big sagebrush communities are common on south-facing exposures while northern exposures are timbered.

Grazing by cattle and domestic sheep is the primary land use on public and private lands. Conflicts tend to be localized rather than widespread and include excessive use of forage on winter ranges and riparian area degradation.

Overall habitat security for deer during hunting season is good in Units 43 and 48. Seasonal road closures implemented primarily for elk security also benefit mule deer. Cover is relatively open and road densities are higher in Units 44, 45, and 52, necessitating controlled hunts to maintain the desired buck age structure.

Motorized access to Bennett Hills winter ranges is presently unregulated and may be affecting deer use of available habitat. Motorized use can displace deer from preferred areas and can cause deer to expend critical energy reserves needed to survive the winter and produce healthy fawns.

Important habitat issues include: 1) Succession, and in some cases heavy livestock use, has caused a general decline in the health of aspen communities. Many stands have become decadent and/or are being replaced by conifers. 2) Winter ranges, primarily in Units 45 and 52, are considered to be limiting mule deer in this analysis area. Winter ranges are predominately sagebrush-grass and generally do not have a strong bitterbrush component. Much of the winter habitat has been used heavily by deer and livestock for many years and is considered in poor condition in many areas. Medusahead rye has invaded winter ranges following fires and is

considered a serious concern to the long-term health of habitat. The prevalence of cheatgrass has also increased in deer winter habitats following fire and/or prolonged heavy grazing pressures that have depleted other understory species. Rehabilitation and protection of these very critical winter ranges will require careful long-term planning that will maintain adequate browse for wintering deer and improve understory vegetation. Conservation easements and/or acquisition of private lands in strategic locations would also help increase or maintain winter carrying capacity for deer. 3) Timber harvest and consequent road-building activities continue in portions of Unit 43. Access management will continue to be an important issue for deer and elk management. Increased access frequently leads to more conservative and restricted hunting season frameworks. 4) Private interests own or control access to important summer and fall habitats in Units 44 and 45. This has been a subject of much concern by hunters unable to gain access to areas they wish to hunt. 5) Depredation problems can become acute during severe winters in the King Hill/Bliss areas of Unit 45. Private land used for growing crops and pasturing livestock occurs along the lower perimeter of deer winter range. On Camas Prairie (Units 44 and 45), summer depredation problems on growing alfalfa are common during drought years.

### **Biological Issues**

Data from the King Hill trend area in Unit 45 suggest mule deer populations in the analysis area have increased substantially since 1994. Prior to the decline in deer in 1993, deer populations exceeded winter range carrying capacity and damage to private property was extreme in some years. The short-term management goal has been to maintain the population lower than 1988-1992 levels through liberal antlerless harvest. Despite the liberal antlerless harvest strategy, the estimated population in the trend area increased by 80% from 1994 to 1999. Since 1999, the trend area deer numbers have been stable at about 8,000 deer. Herd composition survey data suggest a decline in reproductive performance measured in December from 85 fawns:100 does (1973-1992) to 65 fawns:100 does (1993-2005). Observed recruitment rates since 1991 have ranged from 21% in 1993 to 42% in 1996 and have averaged 32%, sufficient to allow modest population increases. Low recruitment in 2002 (22%) resulted in an estimated 23% decline in the spring population. In 2003, observed recruitment increased to 31% and, combined with a 40% reduction in antlerless permits, resulted in a 24% increase in spring deer numbers. Observed recruitment in 2005 was 34%. Buck to doe ratios are currently at 34 bucks per 100 does, well above the objective of 20 bucks per 100 does.

### **Inter-specific Issues**

The analysis area supports a substantial population of elk, moose, pronghorn, and at higher elevations, mountain goats. The relationship between deer and elk is presently unclear but is not believed to be a significant issue because there is little or no known overlap in winter use areas between deer and elk. On the Bennett Hills Front deer winter ranges, mule deer will maintain management priority over elk if there are competitive concerns during winter. The pronghorn population on the Camas Prairie and northern portion of Unit 52 is very productive and presently provides the only doe/fawn pronghorn season in Idaho (2006). Many of these pronghorn migrate to Bennett Hills Front winter ranges and co-occupy winter habitat with mule deer. Mule deer and pronghorn will receive equal management consideration on these winter ranges.

Cattle and domestic sheep have imposed the major forage demand in this analysis area since the 1870s. Excessive use by cattle and domestic sheep severely damaged soil and vegetation in the late 1800s and early 1900s. Today, livestock use has been reduced to less than 15% of historic use and competitive concerns remain but tend to be more localized.

### **Predation Issues**

Mountain lions, coyotes, black bears, bobcats, and wolves are potential predators on mule deer in the analysis area. In recent years, mountain lion populations are believed to have decreased slightly. Coyote numbers are believed to have increased in the past 30 years; however, they are subject to unregulated hunting and periodic control activities by USDA Wildlife Services. Black bear numbers have increased slightly in recent years but densities are considered relatively low. Wolves inhabit the analysis area and are subject to frequent control actions because of depredations on domestic sheep. Elk are the major prey item taken by wolves and wolf predation is not considered an important mortality factor in the deer here. Because the management objective has been to slow the rate of increase in this deer herd, any effects that predators may have had on deer population dynamics is considered inconsequential.

### **Winter Feeding Issues**

Supplemental winter feeding of deer has not occurred in the past few years and is not considered an important issue in this analysis area.

### **Information Requirements**

The King Hill winter trend area will continue to be surveyed annually to monitor population status in relation to management objectives. Pre- and post-winter herd composition surveys will be conducted to monitor over-winter fawn mortality, recruitment rate, and the buck to doe ratio.

The Bennett Hills Front has some of the highest wintering deer densities in Idaho and winters a high proportion of the mule deer in Magic Valley Region. There is a need for improved monitoring of winter range condition and trend.

Antler shed hunting has become very popular on Bennett Hills winter ranges. There is concern that shed-antler hunters using motorized vehicles to travel cross-country are causing increased energy expenditures by deer during late winter and early spring when energy reserves are lowest.

## Mule Deer Analysis Area 7 (Units 43, 44, 45, 48, 52)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
King Hill (45)	2006	8214	5000
<b>Total</b>		<b>8214</b>	<b>5000</b>



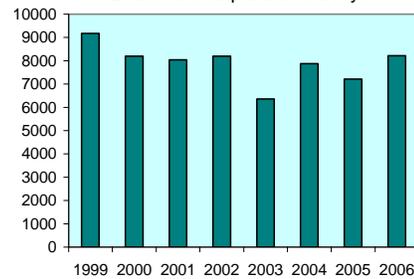
### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	34	20
%4+ Pts in the Harvest	2002-04	43	45

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
King Hill (45)	9165	8198	8042	8195	6360	7878	7206	8214
<b>Comparable Surveys Total</b>	<b>9165</b>	<b>8198</b>	<b>8042</b>	<b>8195</b>	<b>6360</b>	<b>7878</b>	<b>7206</b>	<b>8214</b>

### Population Change Between Comparable Surveys

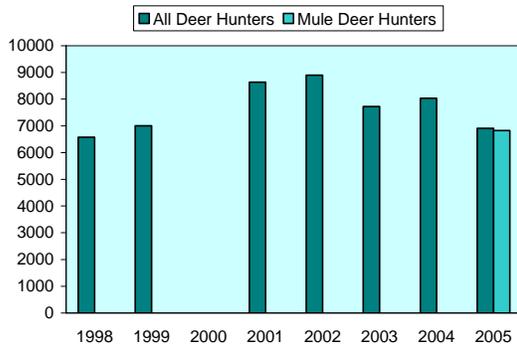
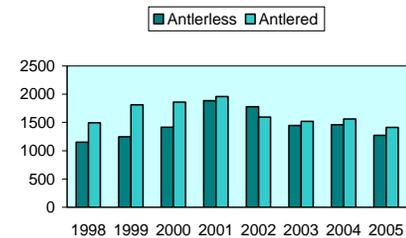


### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	1150	1247	1415	1886	1780	1446	1459	1271
Antlered Harvest	1496	1815	1861	1961	1598	1519	1563	1413
% 4+ Points	37	48	48	40	45	43	41	44
All Deer Hunters	6573	7006	ND	8630	8894	7725	8034	6906
Mule Deer Hunters	ND	6823						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest



### % 4+ Points

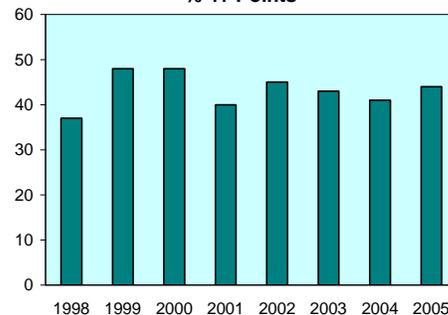


Figure 8. Mule deer Analysis Area 7.

## **Analysis Area 13 (Unit 53)**

### **Management Objectives**

The objective for Analysis Area 13 (Figure 9) is to maintain a small resident population of mule deer compatible with the area's agriculture. Current hunting season frameworks appear to be accomplishing this objective. Given the limited priority placed on managing for mule deer, no trend area will be established.

### **Historical Perspective**

It has been reported that mule deer were relatively abundant in Unit 53 around 1900. However, deer habitat was substantially altered with human settlement, which brought an increase in range fires and the development of large-scale irrigation projects. Today, more than half of Unit 53 is irrigated farmland. The northern portion of the unit contains an extensive tract of land managed by BLM, primarily for livestock grazing. Much of BLM lands have been reseeded to crested wheatgrass, reducing their value for mule deer.

Unit 53 currently has a small resident deer population and cannot support many deer without unacceptable conflicts with agriculture. Depredation complaints from orchards in the Snake River Canyon are common. Unit 53 has some importance as winter range for mule deer from units to the north. Movement of deer into Unit 53 during winter was first noted in the early 1980s following extensive fires and loss of sagebrush habitat in Unit 52A. The number of wintering deer varies considerably depending on winter severity and snow depths. During the 1985-1986 winter, more than 3,000 mule deer moved into Unit 53 and resulted in 54 depredation complaints. During the severe winter of 2001-2002, large numbers of deer moved into Unit 53, primarily east of Jerome, and resulted in a substantial number of deer-vehicle collisions on Interstate 84.

Harvest management is currently designed to keep resident deer numbers low. Short-range weapon hunting on the west side of the unit has been successful in minimizing complaints from orchard owners. On the east side of the unit, a liberal 4-month archery season allows a substantial amount of hunting opportunity close to the Region's population centers. In 2001, the state record archery-harvested mule deer buck was taken in Unit 53.

### **Habitat Issues**

Lands administered by BLM provide important winter habitat, especially during severe winters when large numbers of deer are present. Because of the potential for considerable depredation problems on private lands, BLM lands have added value for wintering deer. Sagebrush restoration on burned areas is needed to provide habitat during those severe winters that large numbers of deer move into Unit 53. As sagebrush reestablishes on burned areas in Unit 52A, the need for maintaining winter habitat in Unit 53 may lessen.

### **Biological Issues**

No population monitoring is conducted in this unit.

### **Inter-specific Issues**

There are no competitive concerns with the few elk and pronghorn that occur in Unit 53.

Heavy livestock use in some areas has the potential to be a problem in those winters when large numbers of mule deer move into Unit 53.

### **Predation Issues**

Coyotes are the only important predators of deer present in substantial numbers. A few mountain lions inhabit the unit primarily in the Snake River Canyon. Predation is not a major issue because the objective is to maintain only a small resident deer population and large numbers of wintering deer occur in the unit infrequently.

### **Winter Feeding Issues**

Winter feeding was conducted during the 1985-1986 winter in an attempt to help reduce winter losses and keep deer away from roads where collisions with vehicles were common. The Department will work closely with the Regional Winter Feeding Advisory Committee to evaluate any future supplemental feeding issues.

### **Information Requirements**

None.

## Mule Deer Analysis Area 13 (Unit 53)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	2002-04	39	15

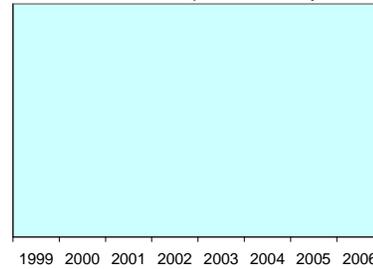
Note: ND = no survey data available, NA = not applicable.

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	32	33	40	95	44	43	51	67
<b>Antlered Harvest</b>	66	67	52	109	72	82	73	106
<b>% 4+ Points</b>	39	40	37	41	42	42	32	21
<b>All Deer Hunters</b>	827	706	ND	863	725	742	698	716
<b>Mule Deer Hunters</b>	ND	709						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest

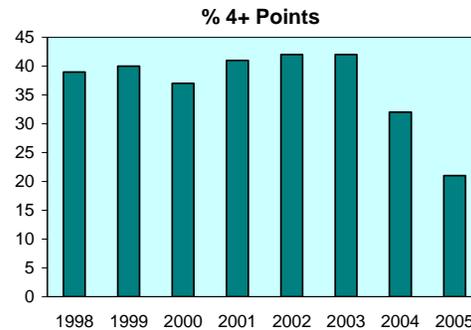
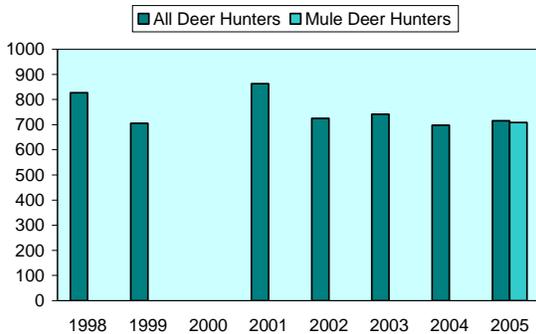
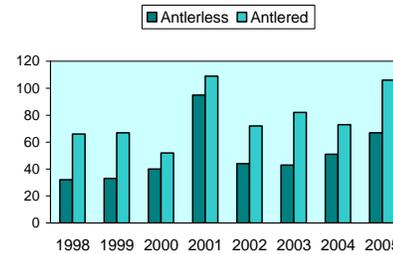


Figure 9. Mule deer Analysis Area 13.

## **Analysis Area 14 (Units 54, 55, 57)**

### **Management Objectives**

The objective for Analysis Area 14 (Figure 10) is to restrict antlerless harvest when trend area populations are less than 3,200 deer; conversely, antlerless harvest will be considered when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be sustained with existing habitat conditions and depredation levels. Deer populations will be managed to maintain or exceed 25 bucks per 100 does in the pre-winter population and >35% bucks with 4-point or larger antlers in the October harvest.

### **Historical Perspective**

During the early 1900s, mule deer populations in Analysis Area 14 were very low, due in part to unregulated harvest. During the late 1800s and early 1900s, heavy use by domestic livestock greatly altered deer habitat. Dense shrubs fields, dominated by sagebrush and bitterbrush, replaced plant communities dominated by grasses. This change in habitat set the stage for dramatic increases in deer numbers. Closed hunting seasons from 1909-1935 and very conservative seasons through 1940 helped allow deer populations to increase. By 1950, deer numbers had reached an estimated 20,000 head in Unit 54 and winter ranges were considered severely over-browsed. Efforts were made to reduce deer populations with both general and controlled season frameworks. Following a significant decline in numbers during the mid-1970s, deer populations increased again during the late 1980s, a period of prolonged drought conditions and mild winters. During winter 1992-1993, deer populations declined by an estimated 35-40%. Deer had entered the winter in poor physiological condition and high over-winter fawn and buck mortality occurred. Deer numbers remained at relatively low levels from 1993-2003, despite favorable climatic conditions and conservative hunting seasons. In 2004, estimated deer numbers in trend areas increased substantially.

Since 1970, this area has been managed exclusively with controlled firearm seasons. These units are very popular with sportsmen desiring quality, high hunter success, low hunter density, and the opportunity to observe many deer. Following the 1993 population decline, antlerless-only hunts were eliminated. Presently (2006), a 100-permit antlerless hunt in Unit 55 and a 400-permit youth either-sex hunt allows a very small harvest of antlerless deer.

Segments of the deer populations exhibit interstate movements. In Units 54 and 55, there are migrations south to winter ranges in Nevada and Utah, respectively. Harvest management in Utah and Nevada has been compatible with the Department's management objectives. Important winter ranges in this analysis area are: Eightmile (Unit 57), Jim Sage (Unit 55), Willow Creek (Unit 55), Dry Creek (Unit 54), and Sugarloaf (Unit 54).

## **Habitat Issues**

This analysis area is characterized by isolated mountain ranges surrounded by farmland and sagebrush-grass semi-desert. At low to mid elevations, juniper woodlands are common with mixed mountain shrub and aspen communities occurring along riparian areas and on some north- and east-facing slopes. At higher elevations, pockets of conifers (lodgepole pine, Douglas fir, and subalpine fir) and aspen occur on north- and east-facing aspects and more mesic sites. Primarily, USFS and BLM manage important summer and winter habitats. When deer populations are high, depredation complaints on growing alfalfa are common in Unit 55.

Important habitat issues include: 1) Succession, and in some cases heavy livestock use, has caused a general decline in the health of aspen communities. Many stands have become decadent and/or are being replaced by conifers. Where the vigor and size of aspen communities can be improved, prescribed fire should be considered. 2) The quality and quantity of winter habitat is considered to be limiting mule deer in this analysis area. During the past 30 years, fire has altered much of the critical habitat in Unit 54. The loss of extensive bitterbrush stands on the Dry Creek, Sugarloaf, and Buckbrush Flat winter ranges is expected to have long-term negative effects on deer populations. While sagebrush is beginning to reestablish on some of these winter ranges, bitterbrush recovery has been slow or nonexistent. In Unit 55, the distribution and density of juniper has increased on some winter ranges, replacing important browse for wintering deer. Management should favor the reestablishment and long-term maintenance of shrubs on winter ranges. Bitterbrush plantings should be undertaken in areas where natural recovery is not evident. In some areas, carefully designed projects to remove junipers by burning or chaining may have long-term benefits for mule deer. 3) Because of the open nature of the habitat and high road densities in some areas, habitat security for deer during hunting season is considered moderate, although some high security areas exist in all units. Road densities are considered high in Unit 54 and moderate in Units 55 and 57. Several motorized vehicle area closures have been implemented in Unit 54 to provide additional security habitat and non-motorized hunting opportunity. Additional motorized vehicle restrictions may be recommended to maintain quality hunting opportunity and desired buck age structures in Unit 54.

## **Biological Issues**

After the 1993 winter die-off, deer populations in this analysis area continued to decline through about 1997, despite conservative harvest management. Deer populations remained relatively stable from 1998-2003 and increased substantially in Units 54 and 55 in 2004 and 2005. Deer numbers have remained low in Unit 57 since the 1993 decline. Causes for the lower reproductive performance are unknown. Winter fawn mortality has been average; however, the ratio of fawns entering the winter has been low. From 1974-1992, a pre-winter ratio averaged 83 fawns per 100 does compared to 63 fawns per 100 does from 1993-2005. Buck to doe ratios in the analysis area are meeting the objective of 25 bucks per 100 does.

## **Inter-specific Issues**

Elk, black bear, and bighorn sheep were eliminated from these units during the late 1800s and early 1900s. Today, a small elk population exists in Unit 54 and a few resident elk occur in Unit

57. There are currently (2006) no competitive concerns with deer and elk. A small population of California bighorn sheep inhabits the northeast portion of the Sawtooth National Forest in Unit 54 but poses no concern with mule deer management.

Livestock have imposed the major forage demand throughout these units for over a century. Currently, on public lands, livestock management is generally compatible with deer habitat management, although heavy livestock use in some localized areas has negative effects. In the past, conversion of large areas from native sagebrush/grass communities to crested wheatgrass seedings has had negative effects on deer habitat.

### **Predation Issues**

Mountain lions, coyotes, and bobcats are potential predators on mule deer in the analysis area. Mountain lion populations increased markedly in these units, presumably in response to the high deer populations in the late 1980s and early 1990s. Mountain lion harvest doubled, depredations on domestic sheep increased, and the frequency of reported mountain lion observations increased substantially. While the relationship between deer and mountain lions is unclear, mountain lions may have played a role in slowing the recovery in deer herds. There are recent indications from mountain lion hunters and researchers that mountain lion populations have declined, probably in response to the reduced mule deer prey base. Coyote numbers are believed to have increased in the past 30 years; however, they are subject to unregulated hunting and periodic control activities by USDA Wildlife Services. The effect, if any, of coyote predation on mule deer population dynamics is unknown.

### **Winter Feeding Issues**

Supplemental winter feeding of deer has not occurred in the past few years and is not considered an important issue in this analysis area.

### **Information Requirements**

Annual aerial surveys of trend areas are needed to monitor population status in relation to management objectives. Periodic sightability surveys are needed to monitor changes in winter distribution.

A better understanding of the relationship between road densities and buck survival during hunting season would improve our ability to make sound decisions about access and harvest management.

## Mule Deer Analysis Area 14 (Units 54, 55, 57)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Sugarloaf (54)	2006	1109	1400
Dry Creek (54)	2005	856	1000
Jim Sage (55)	2006	3073	800
<b>Total</b>		<b>5038</b>	<b>3200</b>



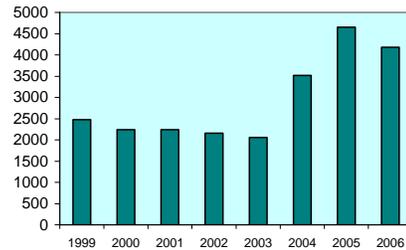
**Buck Status & Minimum Criterion**

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2004	29	25
%4+ Pts in the Harvest	2002-04	40	35

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Sugarloaf (54)	1031	737	742	685	662	1030	1171	1109
Dry Creek (54)	647	480	564	548	471	988	856	ND
Jim Sage (55)	796	1022	935	929	927	1504	2625	3073
<b>Comparable Surveys Total</b>	<b>2474</b>	<b>2239</b>	<b>2241</b>	<b>2162</b>	<b>2060</b>	<b>3522</b>	<b>4652</b>	<b>4182</b>

**Population Change  
Between Comparable Surveys**

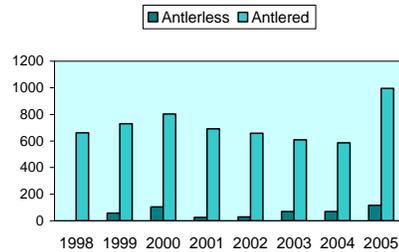


**Analysis Area Harvest Statistics**

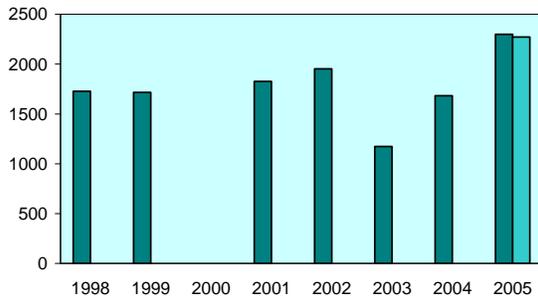
	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	0	57	104	26	29	70	69	117
Antlered Harvest	662	730	802	692	658	609	586	996
% 4+ Points	33	30	40	40	40	34	47	42
All Deer Hunters	1727	1718	ND	1828	1953	1174	1683	2299
Mule Deer Hunters	ND	2273						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**



**All Deer Hunters Mule Deer Hunters**



**% 4+ Points**

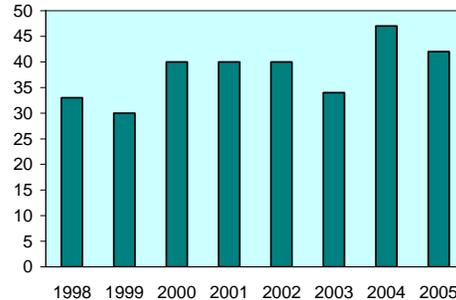


Figure 10. Mule deer Analysis Area 14.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>5</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**SOUTHEAST REGION**

**Analysis Area 20 (Units 56, 70, 73, 73A)**

**Management Objectives**

Objectives for Analysis Area 20 (Figure 11) include restricting antlerless harvest when trend area populations are less than 5,700 deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season and a minimum of 30% 4+ points in the harvest.

**Historical Perspective**

The mule deer population in Analysis Area 20 has fluctuated widely since the mid-1800s. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s to early 1970s. Overall, mule deer numbers in these units appear to be highly volatile with wide fluctuations over relatively short time periods.

Harvest management during the 1950s and 1960s was designed to maintain or reduce deer numbers in response to what was considered over-browsed winter ranges. Season frameworks in these units (Appendix A) have varied considerably more than elsewhere in southeastern Idaho. General seasons have been the rule, except in Unit 56, which had controlled hunts from 1970-1981. Season lengths have varied from 3 days to 5 weeks. Either-sex opportunity has ranged from none to extra antlerless-only tags available in 1989 and 1990 for Units 70, 73, and 73A. Following the winter of 1992-1993, when significant winter mortality occurred, harvest management has been conservative.

Research in the mid-1980s found very low survival of bucks in Unit 73. A 2-point only regulation, with short periods of any buck hunting, was enacted there in 1997 after the buck:doe ratio fell below 10:100. Hunter numbers decreased for several years, proportions of older bucks increased somewhat, until harvest of older bucks returned to earlier levels. In 2004, a 4-point or greater regulation was enacted in Units 70 and 73 in response to public suggestions. The 4-point or greater regulation is still in place for both units which now have a buck:doe ratio of 30:100. The regulation will remain for a few more years to properly monitor its effects and public support.

Major wintering areas in this analysis area are: Pauline (Unit 70), Lead Draw to Walker Creek (Unit 70), Elkhorn Mountain (Unit 73), Malad Face (Unit 73), Samaria Mountain (Unit 73), Hansel Mountains (Unit 73), Rockland Valley (Unit 73A), Knox Canyon (Unit 73A), Juniper (Unit 56), the Hagler Canyon complex (Unit 56), and Sweetzer Pass (Unit 56).

### **Habitat Issues**

This analysis area represents the least productive habitats in southeastern Idaho. Low productive habitats combined with variable winter conditions undoubtedly cause mule deer numbers to vary considerably over time. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these 3 main types that are important to deer include mixed shrub communities, Utah juniper, and curlleaf mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands with depleted or sparse understories. Given that current livestock grazing practices are much more conservative and designed to promote grass, and that the current shrublands are aging, it is believed that the quality of mule deer habitat probably peaked earlier in the twentieth century. The current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

Approximately 41% of the land in this analysis area is publicly owned. BLM and USFS administer the majority of public land. Fort Hall Indian Reservation makes up approximately 7%, while the remaining 52% is private. Private land is predominately used for rangeland pasture, small grains, and hay production. A substantial amount of private land has been enrolled in the Conservation Reserve Program (CRP). Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned ground include livestock grazing, timber management, and recreation. Of particular concern is the encroachment of human activity, either intense recreational efforts and/or structural developments, in mule deer winter range. Developments from the west side of Pocatello south to Walker Creek in Unit 70 have reduced the potential wintering area for deer.

Open habitat types combined with moderate to high road densities and, in some areas unrestricted ATV travel, result in a greater vulnerability of mule deer in this analysis area. Use of motorized vehicles for hunting is prohibited. For other than hunting, motorized travel on the Caribou National Forest within this area is restricted to designated routes during the snow-free period of the year with the specific purpose of reducing impacts to wildlife habitat and reducing wildlife disturbance.

## **Biological Issues**

Recruitment rates, as evidenced by December/January fawn:doe ratios, have ranged from 50 to 75:100 over the past few winters. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

## **Inter-specific Issues**

Although livestock grazes much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

The current trend of elk occupying mule deer winter range is an area of major concern. Some winter range in this analysis area do not lend themselves to niche separation by the 2 species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. The Department will seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

Residential, recreational, and associated development has impacted available deer winter ranges, particularly in Unit 70. These impacts have likely had direct effects on numbers of deer and will be impossible to mitigate. Continued growth of human populations will necessitate the acknowledgment of impacts to wildlife habitat and populations.

## **Predation Issues**

Major predators of mule deer in this analysis area include mountain lions, coyotes, and bobcats. Mountain lion and coyote populations may have increased during the last 30 years. It is unknown specifically what impact these changing predator systems are having on mule deer population dynamics, although a multi-year investigation of the impact of manipulating predator populations indicated only small affects.

## **Winter Feeding Issues**

Emergency supplemental feeding of deer occurs periodically; however, these units generally have milder winter conditions than elsewhere in southeastern Idaho. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances probably short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

Mule deer were provided supplemental winter feed at a Department-sanctioned, Commission-approved feed site east of Stone (Unit 56) during 12 of 15 winters between 1974 and 1988. An estimated 500-1,400 deer were fed annually. The feeding was initiated following the construction of Interstate 84 that blocked the traditional migration of deer from Unit 56 to winter ranges on the south end of Black Pine Mountain (Unit 57) and the east end of the Raft River range in Utah. In the early 1950s, it was estimated that more than 4,000 deer from Unit 56 made the migration. During the open winters associated with the prolonged drought of the late 1980s, deer did not concentrate near the state line for several consecutive years, and the feeding operation was permanently closed down. Unit 56 will be managed for the number of deer that can be supported on winter ranges without an annual winter feeding effort.

Private citizens, with and without Department assistance, have provided supplemental winter food for approximately 500 deer in several areas in Unit 73 for the past 3-5 years.

### **Information Requirements**

The Department will explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

Recent observed recruitment rates are consistent with either stable or slightly declining populations. A better understanding of factors affecting recruitment rates is needed.

Although habitat succession and change are occurring, it is unknown what specific impacts will occur to deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

## Mule Deer Analysis Area 20 (Units 56, 70, 73, 73A)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Heglar (56)	2006	1773	1800
Elkhorn (73)	2006	1126	1200
Malad Face (73)	2006	817	1200
Rockland (73A)	2006	1852	1500
<b>Total</b>		<b>5568</b>	<b>5700</b>



**Buck Status & Minimum Criterion**

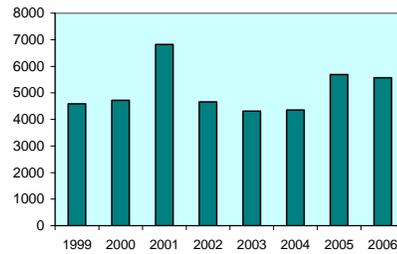
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	25	15
%4+ Pts in the Harvest	2003-05	41	30

Note: Unit 56 has a minimum buck:doe ratio criterion of 25.

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Heglar (56)	1113	1318	1710	1133	700	1101	1357	1773
Elkhorn (73)	958	980	1387	749	1163	1401	2079	1126
Malad Face (73)	942	885	1622	761	717	729	1090	817
Rockland (73A)	1578	1533	2100	2016	1734	1121	1168	1852
<b>Comparable Surveys Total</b>	<b>4591</b>	<b>4716</b>	<b>6819</b>	<b>4659</b>	<b>4314</b>	<b>4352</b>	<b>5694</b>	<b>5568</b>

**Population Change  
Between Comparable Surveys**

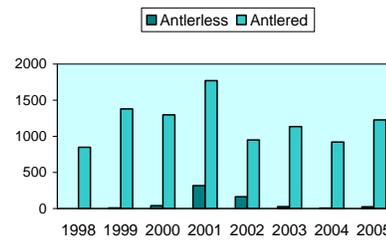


**Analysis Area Harvest Statistics**

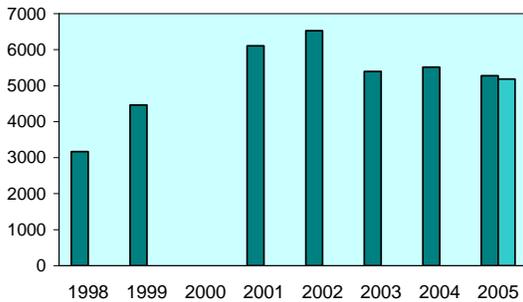
	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	0	7	39	317	161	26	5	24
Antlered Harvest	847	1379	1298	1770	949	1135	919	1226
% 4+ Points	45	35	31	31	37	34	32	57
All Deer Hunters	3172	4465	ND	6109	6529	5392	5518	5277
Mule Deer Hunters	ND	5187						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters. General hunt in Unit 56 is for 2-point bucks only.

**Harvest**



**All Deer Hunters Mule Deer Hunters**



**% 4+ Points**

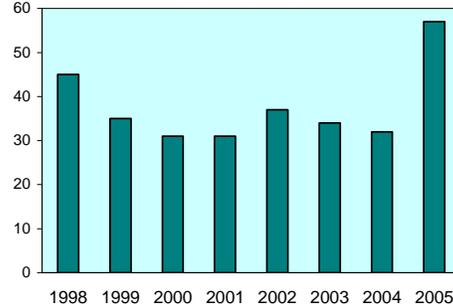


Figure 11. Mule deer Analysis Area 20.

## **Analysis Area 21 (Units 71, 74)**

### **Management Objectives**

Objectives for Analysis Area 21 (Figure 12) include restricting antlerless harvest when trend area populations are 1,700 or less deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season and a minimum of 30% 4+ points in the harvest.

### **Historical Perspective**

The mule deer population in Analysis Area 21 has fluctuated widely since the mid-1800s. Early accounts by trappers through the area suggested that deer were seen but were less numerous than buffalo, bighorn sheep, and elk. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s - early 1970s.

Harvest management during the 1950s and 1960s was designed to maintain or reduce deer numbers in response to what was considered over-browsed winter ranges. Long general either-sex seasons (3-5 weeks) predominated. Following the decline in the early 1970s, harvest management became more conservative with 2-4 week general seasons with varying amounts of either-sex opportunity offered. By the late 1980s, the deer population had increased to a point that a population reduction was desired. The years 1989 and 1990 were marked by 4-week general either-sex seasons with extra deer tags available. Following the winter of 1992-1993 when significant winter mortality occurred, harvest management has been conservative.

Major wintering areas in this analysis area are: Blackrock Canyon (Unit 71), Portneuf Winter Range (Unit 71), the west facing slopes east of Downey (Unit 74), Hadley Canyon complex (Unit 74), Densmore Creek (Unit 74), and Treasureton (Unit 74).

### **Habitat Issues**

This analysis area represents habitats that are intermediate in productivity between the highly productive units to the east and the less productive habitats to the west. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these 3 main types that are important to deer include mixed brush communities, juniper, and mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands. Given that current livestock grazing practices are much

more conservative and designed to promote grass, and that current shrublands are aging, it is believed that the quality of mule deer habitat probably peaked earlier in the twentieth century. The current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

Approximately 28% of the land in this analysis area is publicly owned. USFS, BLM, and IDL administer nearly equal amounts of the public ground. Fort Hall Indian Reservation makes up approximately 15%, while the remaining 57% is private ground. The private ground is predominately used for rangeland pasture, small grains, and hay production. Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned ground include livestock grazing, timber management, and recreation. Of particular concern is the encroachment of human activity, either intense recreational efforts and/or structural developments, in mule deer winter range. Development along the Portneuf, Hadley Canyon complex, and Treasureton winter ranges, in particular, will reduce the potential for wintering greater numbers of deer.

Open habitat types combined with moderate road densities, and in some cases unrestricted ATV travel, probably result in a greater vulnerability standard for mule deer in this analysis area. These 2 units receive high hunting pressure because of their close proximity to Pocatello.

### **Biological Issues**

Recruitment rates in this analysis area, as evidenced by December/January fawn:doe ratios, have only been measured once, and 74 fawns:100 does was observed in 1996. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

### **Inter-specific Issues**

Although livestock grazes much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that over-concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

Of greater concern than livestock interactions is the current trend of elk occupying mule deer winter ranges. Some winter areas in this analysis area do not lend themselves to niche separation by the 2 species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. Recent encroachment of elk into mule deer winter range will require immediate action. The Department will aggressively seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

### **Predation Issues**

Major predators of mule deer in this analysis area include mountain lions, coyotes, and bobcats. Mountain lion and coyote populations are believed to have increased during the last 30 years. It

is unknown specifically what impact these changing predator systems are having on mule deer population dynamics.

### **Winter Feeding Issues**

Emergency supplemental feeding of deer occurs approximately every 3 years. Primary areas include between Inkom and McCammon and the west-facing hills between McCammon and Downey. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances probably short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

### **Information Requirements**

The Department will explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

Annual monitoring of recruitment is needed along with a better understanding of factors affecting recruitment rates.

Although habitat succession and change are occurring, it is unknown specifically what quantitative impacts will occur with deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

Given that predator and elk populations and habitat have changed over time, a better understanding of the interrelationships and ecological processes governing mule deer population dynamics would greatly aid in management recommendation decisions.

## Mule Deer Analysis Area 21 (Units 71, 74)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Portneuf (71)	2006	479	1700
Unit 74 (74)	2001	4112	NA
<b>Total</b>		<b>479</b>	<b>1700</b>

Note: NA = not applicable.



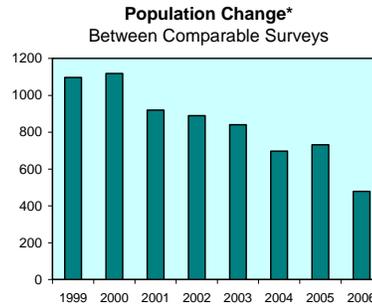
### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	11	15
%4+ Pts in the Harvest	2003-05	24	30

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Portneuf (71)	1097	1118	920	889	840	697	731	479
Unit 74 (74)	ND	ND	4112	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>1097</b>	<b>1118</b>	<b>920</b>	<b>889</b>	<b>840</b>	<b>697</b>	<b>731</b>	<b>479</b>

Note: ND = no survey data available. Only the Portneuf Trend Area numbers appear in the Population Change chart.



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	0	13	4	159	14	6	1	6
Antlered Harvest	459	527	628	794	428	460	442	737
% 4+ Points	25	27	28	32	38	21	20	30
All Deer Hunters	2185	2239	ND	3154	3119	2372	2402	2622
Mule Deer Hunters	ND	2580						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

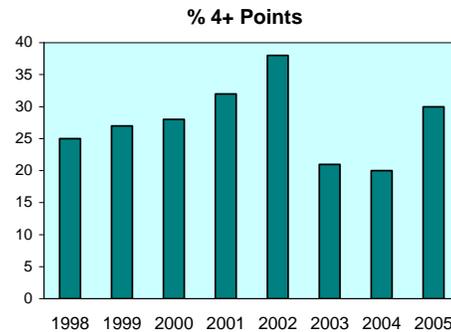
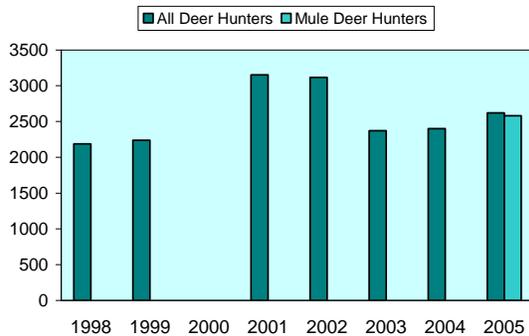
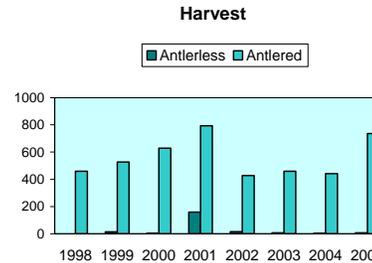


Figure 12. Mule deer Analysis Area 21.

## **Analysis Area 22 (Units 72, 75, 76, 77, 78)**

### **Management Objectives**

Objectives for Analysis Area 22 (Figure 13) include restricting antlerless harvest when trend area populations are less than 10,000 deer; managed antlerless harvest will be encouraged when deer numbers exceed this threshold value. This value represents an intermediate population size between current status and numbers observed during the late 1980s and early 1990s when deer populations were considered higher than could be supported during a normal winter and presented depredation concerns for agricultural producers. Additional objectives include maintenance of greater than 15 bucks:100 does post-season, and a minimum of 30% 4+ points in the harvest.

### **Historical Perspective**

The mule deer population in Analysis Area 22 has fluctuated widely since the mid-1800s. Early accounts by trappers through the area suggested that deer were seen but were less numerous than buffalo, bighorn sheep, and elk. Deer numbers probably declined through the early 1900s, possibly due to unregulated harvest. By 1920, observations of deer were quite rare. Between 1920 and the early 1970s, deer numbers increased dramatically, interrupted briefly by significant winter mortality. Following a significant decline in numbers beginning in 1972, numbers again increased until the late 1980s. The population level attained during this second peak probably did not reach that attained during the 1950s - early 1970s.

Harvest management during the 1950s and 1960s was designed to reduce deer numbers in response to what was considered over-browsed winter ranges. Long general seasons with opportunity for extra deer tags predominated. Following the decline in the early 1970s, harvest management became more conservative with 2-4 week general seasons with varying amounts of either-sex opportunity offered. By the late 1980s, the deer population had increased to a point that a population reduction was desired. The years 1989 and 1990 were marked by 4-week general either-sex seasons with extra deer tags available. Following the winter of 1992-1993 when significant winter mortality occurred, harvest management has been conservative.

An apparent change in the winter distribution of mule deer has occurred, primarily in Unit 76. During the 1950s and 1960s, deer use of the Soda Front (Wood Canyon south to Montpelier) was extensive, while use of the Bear Lake Plateau and the Soda Hills (Unit 72) was minimal. Currently, the Bear Lake Plateau and the Soda Hills represent the 2 most significant winter ranges for mule deer in Unit 76.

Major wintering areas in this analysis area are: Soda Hills (Unit 72), Bear Lake Plateau (Unit 76), West Bear Lake (Unit 78), Grace Front (Unit 75), and the Oneida Narrows Complex (Unit 77). An unknown number of deer migrate to and winter in Wyoming and Utah.

## **Habitat Issues**

This analysis area represents the most productive habitats for mule deer in southeastern Idaho. Three main vegetation types predominate: sagebrush-grassland, aspen, and conifer. Other variations of these 3 main types that are important to deer include mixed brush communities, juniper, and mahogany. The current mix of vegetation cover types is a result of intensive grazing by livestock during the early 1900s and ongoing fire suppression efforts. These factors converted what was predominately perennial grass stands into shrublands. Given that current livestock grazing practices are much more conservative and designed to promote grass, and that current shrublands are aging, it is logical that quality mule deer habitat probably peaked earlier in the twentieth century. Additionally, the current conversion of aspen to conifer and replacement of mixed shrub and sagebrush communities by juniper probably will reduce habitat suitability for mule deer.

The USFS owns approximately 54% of the land in this analysis area. The remaining 46% of private ground is predominately used for rangeland pasture, small grains, and hay production. Depredation complaints are generally limited to periods of high deer populations. Predominant land uses of the publicly-owned lands include livestock grazing, timber management, recreation, and phosphate mining. Of particular concern is the encroachment of human activity, either intense recreational efforts (i.e., over-snow machine travel) and/or structural developments, in mule deer winter range. Development in the Bear River Valley of Unit 77 and along the West Bear Lake winter range in Unit 78 will undoubtedly reduce the potential for wintering greater numbers of deer.

Open habitat types combined with moderate road densities, and in some cases unrestricted ATV travel, probably result in a greater vulnerability standard for mule deer in this analysis area.

## **Biological Issues**

Recruitment rates, as evidenced by December/January fawn:doe ratios, have ranged from 60 to 85:100 over the past few years. It is believed that 66 fawns:100 does is adequate to maintain populations with normal winter mortality, while increased recruitment is necessary for population growth. Conversely, recruitment rates less than 66:100 are generally consistent with stable to declining populations.

## **Inter-specific Issues**

Although livestock grazes much of the mule deer range in this analysis area, interactions of concern are relatively few and tend to be limited to localized areas. Of primary concern are livestock winter feedlot operations that over-concentrate deer during winter. Of minor concern are a few localized areas (riparian and winter range) of intense livestock pressure.

Of greater concern than livestock interactions is the current trend of elk occupying mule deer winter range. Some winter ranges in this analysis area do not lend themselves to niche separation by the 2 species and, therefore, either direct resource competition and/or social intolerance will likely impact mule deer numbers. Recent encroachment of elk into the Soda

Hills will require immediate action in order to maintain this area as a significant mule deer winter range. The Department will aggressively seek opportunities to minimize the occupancy by elk in key mule deer winter ranges.

### **Predation Issues**

Potentially major predators of mule deer in this analysis area include black bears, mountain lions, coyotes, and bobcats. The black bear population is low, but appears to be increasing. Mountain lion and coyote populations are believed to have increased during the last 30 years. It is unknown specifically what impact these changing predator systems are having on mule deer population dynamics.

### **Winter Feeding Issues**

Emergency supplemental feeding of deer occurs approximately every 3 years. Primary areas include Soda Springs, Georgetown Canyon, Montpelier Canyon, the east shore of Bear Lake and St. Charles Canyon. Deer are fed by interested citizens every year in some areas. In many cases, emergency feeding is initiated after deer have been attracted to cattle feedlot operations or private citizens began feeding deer early in winter. Both of these circumstances probably short-stop deer from reaching more suitable winter range and generally result in high over-winter mortality rates. The Department, working in conjunction with the Winter Feeding Advisory Committee, will discourage livestock operators and other private citizens from encouraging deer use of non-traditional food sources.

### **Information Requirements**

The Department will add another winter census trend area and explore various means of better quantifying over-winter mortality so that harvest recommendations are more responsive to changing populations.

Recent observed recruitment rates are consistent with either stable or slightly increasing populations. A better understanding of factors affecting recruitment rates is needed.

Although habitat succession and change are occurring, it is unknown specifically what quantitative impacts will occur with deer populations. Furthermore, it is unknown whether the aging of current mule deer habitat leads to ultimately less productive and nutritious vegetation.

## Mule Deer Analysis Area 22 (Units 72, 75, 76, 77, 78)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
West Bear Lake (78)	2006	1689	3000
Soda Hills (72)	2006	2016	4000
Bear Lake Plateau (76)	2006	3363	3000
<b>Total</b>		<b>7068</b>	<b>10000</b>



### Buck Status & Minimum Criterion

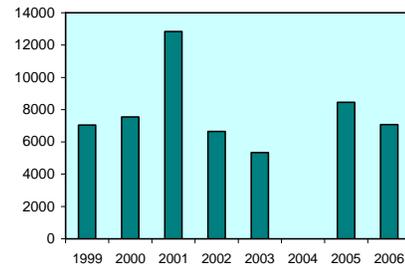
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	12	15
%4+ Pts in the Harvest	2003-05	26	30

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
West Bear Lake (78)	1790	1707	3150	1405	1449	2852	2368	1689
Soda Hills (72)	1826	2378	4576	2877	1124	1801	2552	2016
Bear Lake Plateau (76)	3427	3467	5106	2378	2766	ND	3531	3363
<b>Comparable Surveys Total</b>	<b>7043</b>	<b>7552</b>	<b>12832</b>	<b>6660</b>	<b>5339</b>	<b>ND</b>	<b>8451</b>	<b>7068</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys

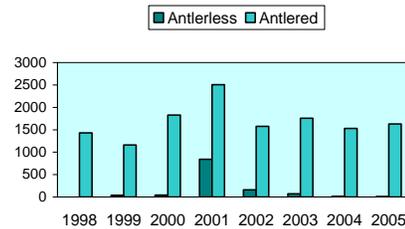


### Analysis Area Harvest Statistics

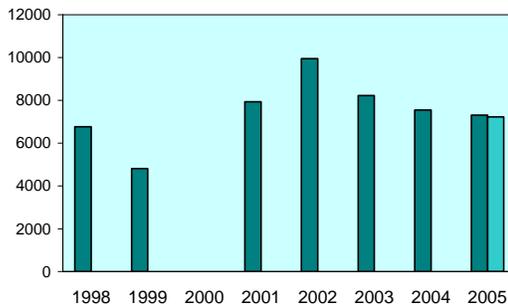
	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	0	40	42	842	163	74	14	10
Antlered Harvest	1431	1160	1828	2506	1574	1761	1534	1630
% 4+ Points	40	30	31	30	37	25	24	29
All Deer Hunters	6767	4812	ND	7928	9951	8223	7545	7317
Mule Deer Hunters	ND	7224						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest



### All Deer Hunters vs Mule Deer Hunters



### % 4+ Points

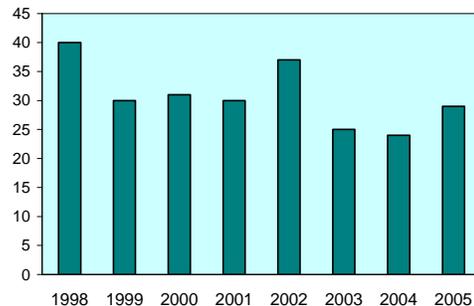


Figure 13. Mule deer Analysis Area 22.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>6</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**UPPER SNAKE REGION**

**Analysis Area 9 (Units 29, 37, 37A, 51)**

**Management Objectives**

Objectives for Analysis Area 9 (Figure 22) are to maintain  $\geq 15$  bucks:100 does in post-season surveys and  $\geq 30\%$   $\geq 4$ -point bucks in the harvest. When estimated deer numbers exceed 800 in the Unit 51 trend area and 1,000 in the Unit 29 trend area, antlerless seasons will be considered.

**Historical Perspective**

Mule deer were scarce and harvests low for much of the early part of the twentieth century. By mid-century, mule deer had become the predominant big game animal. Once known for productive mule deer populations, particularly in the Pahsimeroi and Little Lost valleys, these units yielded very large mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by two-thirds as more conservative management strategies were implemented. Despite 2 decades of very conservative antlerless harvests and increasingly conservative buck seasons, mule deer populations have failed to return to their previous high densities and are stable at moderate levels. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may be contributing to suppressed deer populations.

**Habitat Issues**

Much of the land in these units is administered by BLM or USFS, with private lands mostly restricted to valley bottoms. Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape. The analysis area is generally arid; forage production and deer harvest can be strongly influenced by growing-season precipitation. Deer depredations on agricultural crops are common in Units 29, 37, and 37A and are especially pronounced in dry years. Depredations in Unit 51 are limited.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany that appear relatively stagnant and unproductive. Winter range shrub

stands, specifically mountain mahogany, in parts of Little Lost Valley have been lost or degraded. Elk and livestock may have removed much of the mountain mahogany forage within reach of deer. 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**

Very little aerial survey data has been collected in these units in recent years. There is a contrast in harvest trends within this group of units. Buck harvest in the southern unit (51) averaged 184 from 1981-1985, increased 80% to average 331 during 1986-1990, then dropped back to 211 during 1991-1995 and 178 during 1996-2000. In contrast, buck harvest in the northern units (29, 37, 37A) averaged 618 during 1981-1985, increased only 6% to 653 during 1986-1990, and then declined to an average 412 bucks during 1991-1995 and 309 bucks during 1996-2000.

### **Inter-specific Issues**

Current high elk densities may be having some impact on the area's capacity to produce deer. White-tailed deer, a potentially strong competitor, are mostly restricted to private agricultural lands along major riparian areas. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Pronghorn and bighorn sheep also share the range but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, has generally been reduced in recent years, but some competition probably still exists, particularly in the moister summer range habitats.

### **Predation Issues**

Black bear densities appear to be low and stable. Mountain lion densities are low to moderate and appear to have increased in Units 29, 37, and 37A in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to account for significant predation on deer. Wolves were observed in parts of the analysis area but appeared to be primarily transient.

### **Winter Feeding Issues**

Because this is an arid area with relatively little snowfall, winter feeding has not occurred in these units in recent years.

### **Information Requirements**

Survey data on mule deer herd sex and age composition and trends in deer numbers have not been consistently collected in the past, but this situation is improving somewhat. Impacts of elk on mule deer production and survival are suspected but not quantified. The most productive deer herds are those maintained at a level well below carrying capacity. Better information is needed

to identify appropriate deer densities that will maintain optimum productivity and harvest. Migratory patterns are largely unknown.

Concerns over the representation the unit 29 trend area surveys have over the whole DAW prompted the Upper Snake Region to implement a new deer composition and trend area in Unit 51. This trend area was flown for the first time in the winter of 2005-2006. Although this is the first year for this trend area, there is comparable data from past unit-wide counts in 1990, 1995, and 1999. The count of 1,232 deer in this trend area is an all-time high number for the comparable surveys. The Unit 51 deer herd should continue to be monitored.

In the winter of 2005-2006, the Department placed radio collars on 17 adult deer in Unit 51. This is the first time deer have been marked in this unit and the data collected indicated that deer wintering in this unit do not move very far to summer range. This is very unusual for this part of Idaho. Adult survival was high on this sample.

## Mule Deer Analysis Area 9 (Units 29, 37, 37A, 51)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Tendoy (29)	2004	685	1000
Little Lost (51)	2006	1232	800
<b>Total</b>		<b>1917</b>	<b>1800</b>



**Buck Status & Minimum Criterion**

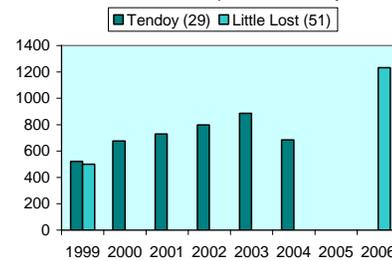
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (29)	2004	5	15
Buck:Doe Ratio (51)	2006	27	15
%4+ Pts in the Harvest	2003-05	34	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Tendoy (29)	521	676	730	798	885	685	ND	ND
Little Lost (51)	500	ND	ND	ND	ND	ND	ND	1232
<b>Comparable Surveys Total</b>	<b>1021</b>	<b>676</b>	<b>730</b>	<b>798</b>	<b>885</b>	<b>685</b>	<b>ND</b>	<b>1232</b>

Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**



**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	37	20	21	70	69	32	39	62
<b>Antlered Harvest</b>	445	595	561	600	610	424	452	582
<b>% 4+ Points</b>	38	29	36	30	31	31	39	33
<b>All Deer Hunters</b>	2299	2567	ND	2810	3172	2396	2225	2064
<b>Mule Deer Hunters</b>	ND	1914						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**

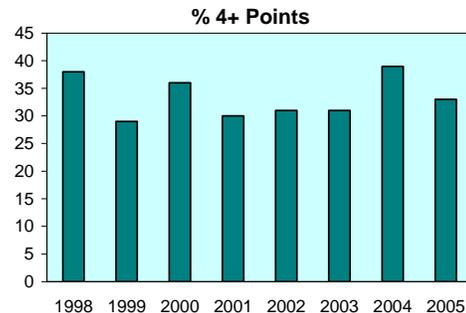
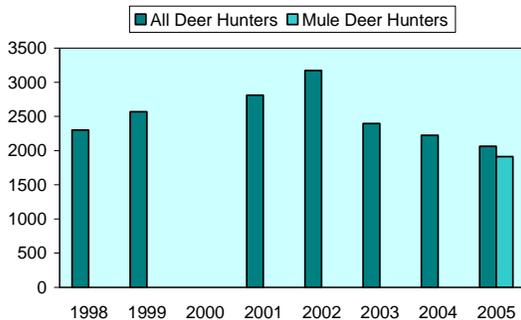
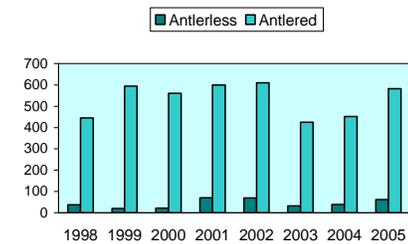


Figure 22. Mule deer Analysis Area 9.

## **Analysis Area 8 (Units 36, 36A, 49, 50)**

### **Management Objectives**

Objectives for Analysis Area 8 (Figure 14) are to maintain a minimum of 15 bucks:100 does in post-season surveys and 30%  $\geq$ 4-point bucks in the harvest. When estimated deer numbers exceed 4,100 in the Unit 50 trend area, antlerless seasons will be considered.

### **Historical Perspective**

Mule deer were scarce and harvests low for much of the early part of the twentieth century. By mid-century, mule deer had become the predominant big game animal. Once known for strong mule deer populations, particularly in Unit 36A, these units produced very high mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by two-thirds as more conservative management strategies were implemented. Despite 2 decades of very conservative antlerless harvests and increasingly conservative buck seasons, mule deer populations have failed to return to their previous high densities and. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may well be helping to suppress deer populations.

### **Habitat Issues**

Cattle ranching, livestock grazing, and recreation are dominant human uses of the landscape in these units. This is in a generally arid region where forage production and deer populations can be strongly influenced by growing season precipitation. Deer depredations on agricultural crops are somewhat common and are especially pronounced in dry years.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany that appear relatively stagnant and unproductive. Elk may have removed much of the mountain mahogany forage within reach of deer. 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**

Buck harvest in the late 1980s in this analysis area reached the highest levels since at least 1970. In the 1990s, harvest dropped to near average levels, except in Unit 49, which remained well above the long-term average. Since seasons were shifted earlier in 1991, comparatively more of the Unit 36/36A buck harvest has come from Unit 36.

### **Inter-specific Issues**

Current high elk densities may be having some impact on the area's capacity to produce deer. Pronghorn, moose, mountain goat, and bighorn sheep also share the range but generally overlap

little with mule deer. Livestock rangeland grazing, another potential source of competition, can be significant.

### **Predation Issues**

Black bear densities appear to be low to moderate and stable. Mountain lion densities are low to moderate and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to account for significant predation on deer. Wolves recently reintroduced by USFWS in central Idaho are now established in Area 8, which may have some effect on other predators and on deer. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer herds below carrying capacity, where they can be more productive. However, excessive levels of predation can also suppress deer populations to undesirably low levels. At this point, it is unclear what the net impact of predation will be with the new mix of predators.

### **Winter Feeding Issues**

Emergency winter feeding of deer occurs infrequently, only during critical winter conditions. In Unit 50, mild winters with low snow accumulation has precluded the need for supplemental feeding. The winter 2005-2006 started out wet, but the winter tapered off and ended up fairly mild overall. Small-scale private feeding operations may occur throughout the analysis area.

### **Information Requirements**

Expanded survey data on mule deer herd sex and age composition and trends in deer numbers would be beneficial. Impacts of elk on mule deer production and survival are suspected but unknown. The most productive deer herds are those maintained at a level below carrying capacity. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. Recent studies of deer survival and migratory patterns are providing valuable information.

Unit 50 has a complex situation in which over 9,000 deer come there to winter but, very few stay in the unit year-round. The high number of deer currently wintering in Unit 50 is of concern since mountain mahogany stands appear to be declining and drought has reduced total winter range forage available. With a large elk population encroaching onto deer winter range, it is possible that this deer herd is at risk of a large die-off if a hard winter were to come. From recent radio-collar studies, we have learned that nearly every deer collared in Unit 50 on winter range leaves the unit to summer. This creates a problem when trying to use antlerless harvest to reduce the likelihood or severity of a large die-off in the future. Many local sportsmen oppose antlerless hunts since, during the general season, they do not observe many deer in Unit 50. In 2004, the antlerless controlled hunt (Appendix A) was pushed back to try and harvest more migrant deer and take pressure off local deer. In 2005, the antlerless hunt included Unit 49 to allow hunters to go where most of the deer herd spends the fall.

## Mule Deer Analysis Area 8 (Units 36, 36A, 49, 50)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
(50)	2006	6941	4100
<b>Total</b>		<b>6941</b>	<b>4100</b>



**Buck Status & Minimum Criterion**

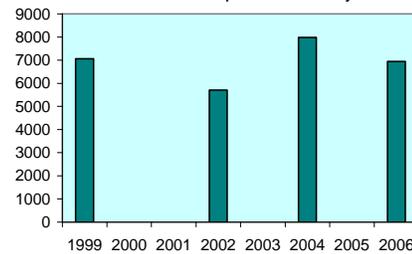
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	26	15
%4+ Pts in the Harvest	2003-05	31	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
(50)	7063	ND	ND	5703	ND	7983	ND	6941
<b>Comparable Surveys Total</b>	<b>7063</b>	<b>ND</b>	<b>ND</b>	<b>5703</b>	<b>ND</b>	<b>7983</b>	<b>ND</b>	<b>6941</b>

Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**



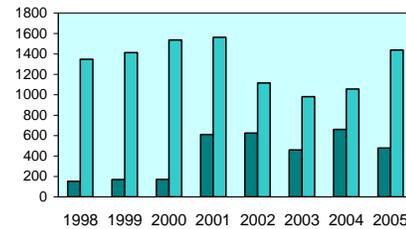
**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	153	170	172	611	624	459	660	478
Antlered Harvest	1348	1415	1537	1563	1116	981	1057	1438
% 4+ Points	36	22	31	23	26	27	32	34
All Deer Hunters	5961	5821	ND	6593	6864	6096	6414	6260
Mule Deer Hunters	ND	6098						

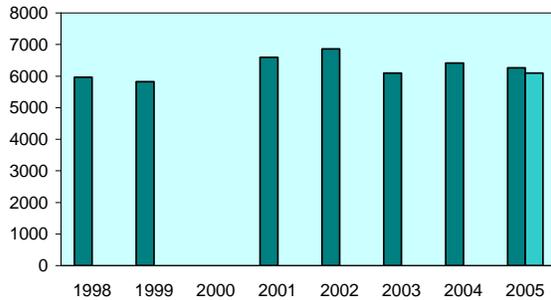
Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**

■ Antlerless ■ Antlered



■ All Deer Hunters ■ Mule Deer Hunters



**% 4+ Points**

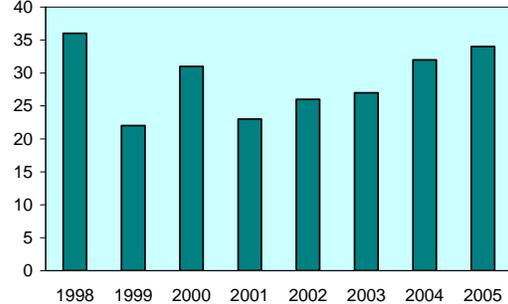


Figure 14. Mule deer Analysis Area 8.

## **Analysis Area 15 (Units 52A, 63, 63A, 68, 68A)**

### **Management Objectives**

Given the low habitat potential for Analysis Area 15 (Figure 15) to support high densities of deer and the limited ability to collect reliable population information, the management objective will be to maintain deer and not fall below 30% 4+ points in the antlered deer harvest. No trend area will be established in this analysis area.

### **Historical Perspective**

The deer population probably has changed very little since historic times in this analysis area. Accounts of trappers through this area in the mid-1800s indicated that buffalo, elk, pronghorn, and bighorn sheep were far more common than mule deer. Given the low densities of deer and low priority for deer in this analysis area, little data is available to indicate what population trends have occurred through time.

Harvest management has been a general hunt format, except for Units 63A and 68A, where human safety issues have warranted either archery or short-range weapon hunts (Appendix A).

### **Habitat Issues**

This analysis area primarily is comprised of dry desert shrub types, thus representing a low productivity area. Potential to support high numbers of mule deer is extremely limited. However, agriculture combined with riparian habitats along the Snake River in Units 63A and 68A can provide for higher populations.

BLM administers the majority of public ground (54% of total area) in Analysis Area 15. Private ground makes up 33% and the Idaho National Laboratory, Fort Hall Indian Reservation, and Craters of the Moon National Park combine for the remaining 12%. Most private ground is used for production of row crops and is situated along the Snake River floodplain. Both mule deer and white-tailed deer periodically create depredation concerns within agricultural zones.

Wildfires continue to play a big role with habitat throughout the analysis area. In many cases, fire has replaced climax sagebrush stands with annual and perennial grasses. Large fires occurred in this area again in summer 2006.

### **Biological Issues**

The majority of this analysis area lacks potential to support good numbers of mule deer. No reliable population information is available to determine changes and/or trends in populations. Mule deer probably increase somewhat during favorable environmental conditions but can be drastically reduced during significant winter events. White-tailed deer comprise a small percentage of total deer in this area and are primarily restricted to riparian/agriculture habitats of the Snake River floodplain. No information exists as to trends in composition of mule deer

versus white-tailed deer. The little movement information we have indicates deer have some rather complicated migration patterns within and in and out of this area.

### **Inter-specific Issues**

Mule deer share the habitat with livestock, elk, pronghorn, and white-tailed deer. It is unknown what impacts an increasing elk population or sympatric whitetails may have on mule deer. It is doubtful that pronghorn have any impact on mule deer population parameters. Much of the Snake River floodplain is used to winter livestock and, in many cases, riparian shrub communities have been significantly degraded. Additionally, a mule deer's social intolerance for livestock may make much of the riparian habitats unavailable to mule deer during winter months.

### **Predation Issues**

Coyotes and bobcats are the predominate predators of mule deer in this analysis area. Trends in bobcat numbers are unknown; it is believed that coyotes have increased over the last 30 years. It is unknown whether coyotes are significantly impacting mule deer population dynamics.

### **Winter Feeding Issues**

Emergency supplemental feeding has not been conducted in the past few years. However, private feeding operations probably occur periodically.

### **Information Requirements**

Given the low potential for supporting high numbers of mule deer throughout this analysis area, little population information would be warranted. However, some information would be valuable.

## Mule Deer Analysis Area 15 (Units 52A, 63, 63A, 68, 68A)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
ND	ND	ND	NA
<b>Total</b>		<b>ND</b>	<b>NA</b>

Note: ND = no survey data available, NA = not applicable.



### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	ND	ND	NA
%4+ Pts in the Harvest	2003-05	34	30

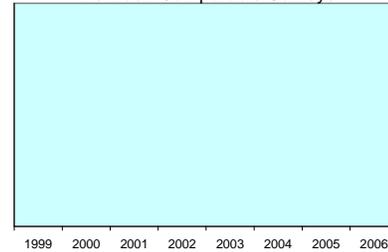
Note: ND = no survey data available, NA = not applicable.

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys

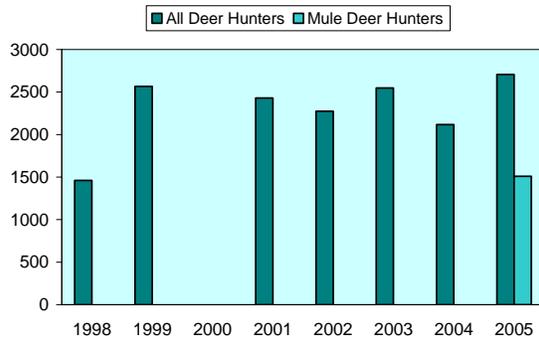
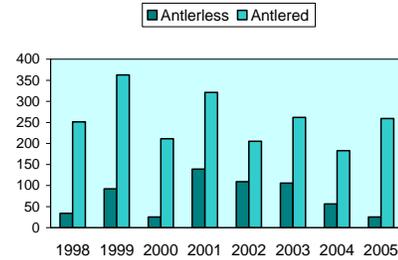


### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	34	92	25	139	109	106	56	25
<b>Antlered Harvest</b>	251	363	211	321	205	262	183	259
<b>% 4+ Points</b>	48	23	38	36	52	29	32	42
<b>All Deer Hunters</b>	1460	2566	ND	2428	2273	2549	2118	2706
<b>Mule Deer Hunters</b>	ND	1511						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest



### % 4+ Points

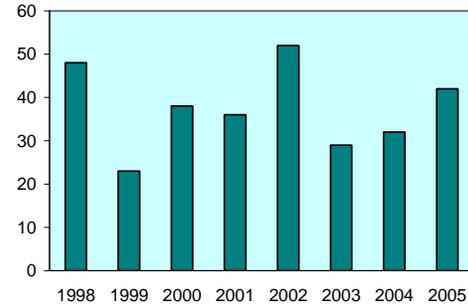


Figure 15. Mule deer Analysis Area 15.

## **Analysis Area 16 (Units 60, 60A, 61, 62A)**

### **Management Objectives**

Objectives for Analysis Area 16 (Figure 16) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain at least 30% 4+ bucks in the general season harvest. Additionally, general antlerless harvest opportunity will be encouraged when trend area populations exceed 1,500 deer. Attempts to reduce populations to a level more in balance with available winter range have met with very limited success to date. Conservative antlerless hunting opportunity in general hunts has limited management options. Controlled hunts have thus far influenced this population only slightly.

### **Historical Perspective**

Since the early to mid-1980s, raw counts on Sand Creek winter range (Unit 60A) indicate that deer populations have at least doubled, steadily increasing from just over 1,300 deer in 1984 to 3,000 or more in 1996, 1997, and 2000. This population has historically been very susceptible to hard winters but is very productive and rebounds quickly. Populations have been built rapidly during periods without severe winter conditions only to crash with the next hard winter. Historically, these population reductions have occurred about every 4-6 years. The most recent winter that resulted in significant mortality was 2001-2002. Due to this, populations were down from the high levels of the late 1990s to an estimate of 1,492 deer in 2003 but in 2004, they had already rebounded to 2,123.

Deer that winter on the Sand Creek winter range summer throughout Units 60, 61, 62A, and into Wyoming and Montana, resulting in a low deer density. Consequently, hunting pressure in these units is low and dispersed. The only time hunting pressure is significant on this population is when early snow forces deer down onto their high-desert winter range during the general hunt.

### **Habitat Issues**

The gentle topography lodgepole pine communities of the Island Park caldera and the moderate to steeply-sloped Centennial Mountain Range with lodgepole pine and Douglas-fir communities dominate most deer summer range for this group of units. Most of this summer range occurs on lands administered by USFS.

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; Rocky Mountain juniper is locally abundant. Land ownership consists of a checkerboard of state, BLM, and private property. Cooperative use-trade agreements have benefited big game populations on this winter range.

A 5,000-acre captive elk operation on Siddoway property has fenced off the majority of the South Juniper Hills. Some of that fenced-in property is historic mule deer winter range and is now unavailable to deer. No severe die-off occurred in response to the fence, but long-term effects remain to be seen.

## **Biological Issues**

Winter deer populations have been very high in Unit 60A. In the late 1990s, populations of 3,000-4,500 deer are the highest levels documented for this herd and are over double the antlerless harvest threshold of 1,500 total deer. The absence of a severe winter over nearly a decade during that time undoubtedly contributed to this increase.

In 2001, the Sand Creek trend area flown was a green-up survey in late March. This green-up timed survey was a departure from historical counts that were conducted while deer were on winter range. The 2001 trend count resulted in an estimate of 1,332 deer, down from the 2,866 estimated the previous winter. It is believed that the 2001 estimate was not an accurate reflection of the status of this population, but an artifact of the timing of this survey. Deer were already widely dispersed and a significant component of the population was undoubtedly not accounted for on this survey. More recent surveys have been conducted when deer are still on winter range.

Recruitment data for this trend area indicate the productive nature of this herd with fawn:doe ratios typically in the 80-90 range. The fawn:doe ratios for the 2004 survey resulted in an estimate of 75 fawns per 100 does.

Deer were recently radio-collared in this analysis area for the first time. In late December 2003, 17 does and 26 fawns were captured and fitted with radio collars by drive-netting on the Sand Creek winter range. Fawn survival was very high at 88%. Dispersal was monitored and distribution was very widespread with animals summering from the Centennial Valley in Montana to the other side of Jackson Lake in Wyoming. Collars were put on more does in January 2005 and 2006, and we will continue to monitor survival and movements of these deer.

## **Inter-specific Issues**

Although deer-elk interactions are not well understood, little evidence exists to support the notion of a negative relationship between mule deer, elk, and moose, as all 3 presently occur at historical high population levels in this group of units. White-tailed deer are found throughout most of the zone but are relatively uncommon.

The new domestic elk operation within the deer winter range has created a situation where wild elk have been attracted to the operation and started using deer winter range.

Sheep and cattle grazing occurs throughout this group of units, which could pose some competitive concerns, especially on winter range during drought years.

## **Predation Issues**

Black bear densities appear to be low and stable in this group of units. Mountain lions are extremely rare. Coyotes are common, especially on Sand Creek Desert winter range. Wolves recently introduced in Yellowstone National Park have become established in this group of units, which could affect other predators and mule deer.

### **Winter Feeding Issues**

No Department-sponsored feeding activities occur in this group of units except under emergency situations. However, social pressure to feed deer arises during any winter of average or greater severity.

### **Information Requirements**

Survey protocol was revised beginning in 2000-2001. Future plans include the continuation of composition and trend surveys utilizing sightability methodology, as specified by the current mule deer management plan.

## Mule Deer Analysis Area 16 (Units 60, 60A, 61, 62A)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Sand Creek (60A)	2006	1881	1500
<b>Total</b>		<b>1881</b>	<b>1500</b>



**Buck Status & Minimum Criterion**

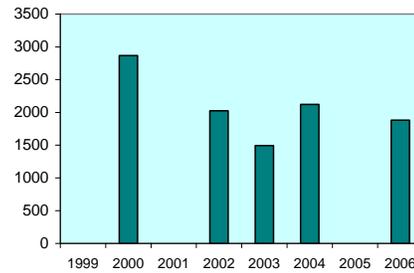
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	30	15
%4+ Pts in the Harvest	2003-05	29	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Sand Creek (60A)	ND	2866	ND	2025	1492	2123	ND	1881
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>2866</b>	<b>ND</b>	<b>2025</b>	<b>1492</b>	<b>2123</b>	<b>ND</b>	<b>1881</b>

Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**

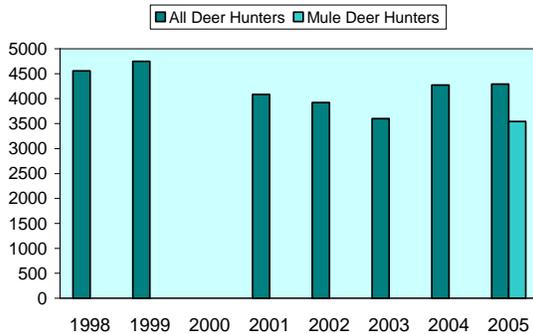
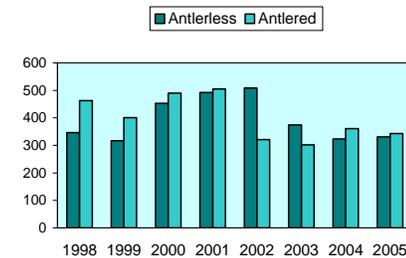


**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	347	317	453	492	509	374	323	331
<b>Antlered Harvest</b>	463	401	490	505	321	302	361	343
<b>% 4+ Points</b>	38	43	36	27	30	28	28	33
<b>All Deer Hunters</b>	4559	4748	ND	4086	3920	3603	4272	4292
<b>Mule Deer Hunters</b>	ND	3541						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**



**% 4+ Points**

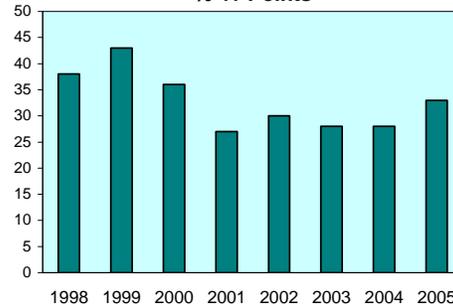


Figure 16. Mule deer Analysis Area 16.

## **Analysis Area 17 (Units 62, 65)**

### **Management Objectives**

Objectives for Analysis Area 17 (Figure 17) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% 4+ bucks in the harvest. Additionally, general antlerless harvest will be encouraged when trend area sightability estimates exceed 400 deer. Maintaining this population at a level where it doesn't cause chronic depredations and subsequent spontaneous deer-feeding by private citizens is an ongoing priority, particularly in Unit 65.

### **Historical Perspective**

Old records of mule deer in this analysis area are sketchy and inconclusive; however, it is probable that they have always been present in unknown density. Early homesteaders reported that deer were scarce. Mule deer populations throughout the region increased in the 1940s and 1950s and remained high through the 1980s. Severe winters in 1988-1989 and 1992-1993 probably took much of the recruitment for those years. The population has since remained low, with the exception of 1 segment, which winters in the Teton River Canyon. Teton River Canyon deer are most likely primarily winter migrants from Wyoming and their population level is highly subject to the vagaries of winter severity, periodically suffering significant winter kill.

### **Habitat Issues**

Summer habitat for Analysis Area 17 mule deer is relatively secure and capable of supporting far more animals than available winter range. In Unit 65, elevation and associated snow depths have always limited winter range. Additionally, what little winter range existed on private land is currently being developed into home-sites. The best winter range in Unit 62 was first inundated by the Teton Dam and then more was destroyed by its failure. Some of the area has shown some slow recovery.

### **Biological Issues**

Regional personnel believe that approximately half of the mule deer that winter in this analysis area spend spring, summer, and fall in Wyoming. This confounds management because the deer often do not enter Idaho until after normal hunting seasons. Keeping this population below a level where they cause depredations to ornamental shrubs in winter or where people are providing them food requires cooperative management with Wyoming.

Mule deer in this analysis area are currently meeting all management objectives, including those required to allow general antlerless hunting. Management objectives for this analysis area are to maintain a minimum of 15 bucks:100 does post-season and 30%  $\geq 4$  points in the buck harvest. A 2005 composition survey resulted in an estimate of 41 bucks:100 does and the percent  $\geq 4$  points in the buck harvest for 2003-2005 was 35.

A trend count was conducted in late March and early April 2001 and resulted in an estimate of 614 total deer. This estimate was down significantly from the 1,626 deer estimated the previous winter (2000); however, it is believed that the 2001 estimate is not an accurate reflection of the status of this population. It is likely that mild winter/early spring conditions resulted in either deer not coming all the way to the Teton River Canyon winter range or leaving early, prior to the trend survey. A subsequent survey in 2002 resulted in an estimate of 1,257 deer. A winter trend area count in 2005 resulted in an estimate of 1,775 deer. This count may under-represent the true herd due to a very mild winter not putting all the deer on traditional winter range.

### **Inter-specific Issues**

Mule deer share habitat in this analysis area with elk, moose, white-tailed deer, and high numbers of domestic livestock. Inter-specific relationships are not monitored and are poorly understood. White-tailed deer have increased dramatically in the Teton Basin over the past 10-15 years and have undoubtedly replaced mule deer in riverine habitats. Elk have also increased over the same time period that mule deer have declined; however, there is no information to demonstrate this represents a cause and effect relationship.

### **Predation Issues**

Black bear densities appear to be low and stable in this group of units. Mountain lions are extremely rare. Coyotes are common, especially on open winter range. Grizzly bears are becoming more abundant as they push out from Yellowstone and Teton National Parks. Wolves recently introduced in Yellowstone National Park have become established in this group of units, which could affect other predators and mule deer.

### **Winter Feeding Issues**

Authentic winter range is limited in this analysis area, particularly in Unit 65. The lowest spot in the unit is above 6,000 feet in elevation. The area has few steep south and west facing slopes. Consequently, winters can be harsh on mule deer and, since home-sites and ranches also occupy winter range, calls to feed the deer are common and private efforts occur frequently. Feeding, either intentionally or incidentally to livestock operations, has produced a rapid growth in the area's white-tailed deer population. Discouraging the start of winter feeding operations in this area requires constant effort. During the winter of 2003-2004, the Department and the Winter Feeding Advisory Committee sponsored emergency feeding of deer in Unit 65 due to harsh winter conditions.

### **Information Requirements**

Survey protocol was revised beginning in 2000-2001. Future plans include the continuation of annual composition and trend surveys utilizing sightability methodology, as specified by the current mule deer management plan.

Migration patterns are largely unknown for deer wintering in this analysis area. It is assumed that most of these deer migrate into Wyoming for summer but it is likely that a significant number of deer may stay in Idaho and summer in the Warm River area or Big Hole Mountains.

## Mule Deer Analysis Area 17 (Units 62, 65)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Teton River (62)	2005	1775	400
<b>Total</b>		<b>1775</b>	<b>400</b>



**Buck Status & Minimum Criterion**

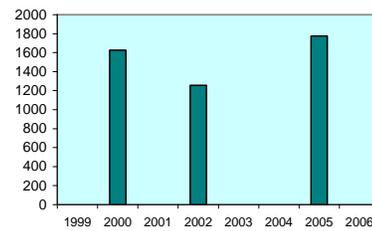
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	41	15
%4+ Pts in the Harvest	2003-05	35	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
(62)	ND	1626	ND	1257	ND	ND	1775	ND
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>1626</b>	<b>ND</b>	<b>1257</b>	<b>ND</b>	<b>ND</b>	<b>1775</b>	<b>ND</b>

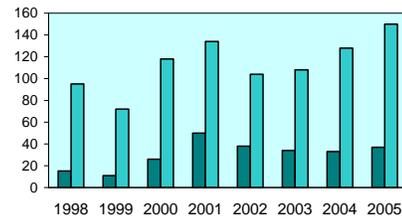
Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**



**Harvest**

■ Antlerless ■ Antlered

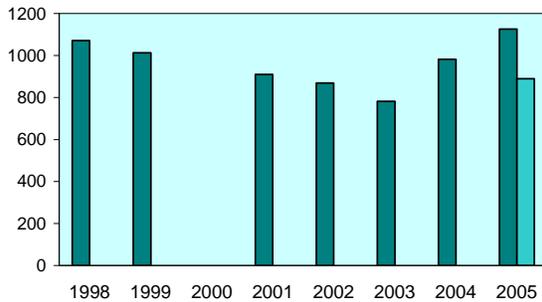


**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	15	11	26	50	38	34	33	37
<b>Antlered Harvest</b>	95	72	118	134	104	108	128	150
<b>% 4+ Points</b>	70	35	34	32	41	26	46	34
<b>All Deer Hunters</b>	1071	1013	ND	910	869	782	982	1126
<b>Mule Deer Hunters</b>	ND	890						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

■ All Deer Hunters ■ Mule Deer Hunters



**% 4+ Points**

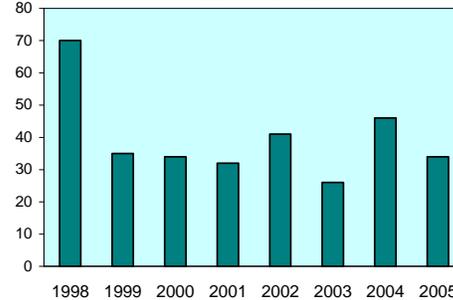


Figure 17. Mule deer Analysis Area 17.

## **Analysis Area 18 (Units 64, 67)**

### **Management Objectives**

Objectives for Analysis Area 18 (Figure 18) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% 4-point and larger bucks in the general season harvest. Additionally, antlerless harvest will be encouraged when trend area sightability estimates exceed 1,500 deer. Maintaining this population at a level where it does not cause depredations and require winter feeding, particularly in Swan Valley, is an ongoing priority.

### **Historical Perspective**

Old records of mule deer in this analysis area are sketchy and inconclusive; however, it is probable that they have always been present in unknown density. Early homesteaders reported that deer were scarce. Mule deer populations throughout the region increased in the 1940s and 1950s and remained high through the 1980s. Severe winters in 1988-1989 and 1992-1993 probably took much of the recruitment for those years. The population has rebounded to levels at or above the long-term average. A liberal general season extending 10 days into November was offered in these units until 1990. The recent philosophy has been to move seasons (Appendix A) into October to reduce vulnerability of adult males during the rut. This has been successful in reducing deer harvest and also hunter satisfaction. This analysis area offers most of what little backcountry hunting opportunity remains in southeast Idaho.

### **Habitat Issues**

Abundant spring, summer, and fall habitat exists in this area but winter range is limited. Winter range has been lost to agriculture and is currently threatened by home-site development. Opportunities to preserve or enhance winter range will be pursued. Winter range on slopes in the vicinity of the mouth of Rainey Creek appear to have suffered from years of overgrazing by elk and mule deer. The area between Table Rock Canyon and Kelly Canyon currently winters high concentrations of 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. Some bench areas in the Black Canyon to Wolverine Canyon stretch appear to be converting from shrub-dominated to grass-dominated or a conifer community. Most winter range in Swan Valley has been lost to agriculture, brush removal, or development.

### **Biological Issues**

Mule deer in this analysis area are currently meeting management objectives, including those required to allow general antlerless harvest. Populations were at or near all-time highs prior to the severe 1988-1989 and 1992-1993 winters. Following a decline of unmeasured magnitude, they have recovered to at or above long-term average levels. Distribution has changed, particularly at Rainey Creek, where it was common to feed up to 500 deer through the 1987-1988 winter. Recently, there have been fewer than 200 fed at this location. Strategies designed to increase wintering elk in some parts of the area to offset elimination of the Rainey Creek feed-

site will need to be carefully monitored to protect existing mule deer populations. Snowmobile activity may be precluding the use of traditional winter range in the Canyon Creek area.

Management objectives for this analysis area are to maintain a minimum of 15 bucks:100 does post-season and 30%  $\geq 4$  points in the buck harvest. A 2006 composition survey resulted in an estimate of 40 bucks:100 does. The percent  $\geq 4$  points in the buck harvest for 2003-2005 was 48. A trend count in 2006 resulted in an estimate of 2,911 total deer, which far exceeds the antlerless harvest threshold of 1,500 total deer.

Although the Heise trend area population within this analysis area is meeting objectives and appears to be performing very well, the loss of winter range in Swan Valley outside of the trend area has most likely resulted in a one-third overall reduction of the mule deer population in this analysis area. Peripheral populations like these need to be monitored to determine the overall status of mule deer in the area.

The Heise winter range in Unit 67 has been the site of an annual winter fawn mortality study since 1998. During the winter of 2005-2006 Heise fawn mortality reached an all time high of 84%. This was due to a long early winter but also most likely indicates the population was too large coming into winter.

### **Inter-specific Issues**

In addition to mule deer, this analysis area supports an elk population and numerous moose. Domestic livestock extensively grazes portions of it. Inter-specific relationships are not monitored and are poorly understood. If the elk population is not carefully managed, conflicts with deer on winter range could develop.

### **Predation Issues**

There are no known unique or unusual predator issues affecting mule deer populations in this analysis area.

### **Winter Feeding Issues**

Mule deer have been fed during severe winters on an emergency basis below the Palisades Bench, near Heise, and in Canyon Creek. They have been fed on a regular basis at the mouth of Rainey Creek along with elk. Plans to eliminate feeding of elk at that site will remove the site's strong attraction to deer and should result in the end of deer feeding as well. With new and planned home-site developments occurring in Swan Valley will come new residents tempted to bait or feed deer and elk. All such efforts will be discouraged.

### **Information Requirements**

Survey protocol was revised beginning in 2000-2001. Future plans include the continuation of annual composition and trend surveys utilizing sightability methodology, as specified by the current mule deer management plan. Information on peripheral deer winter ranges is needed.

## Mule Deer Analysis Area 18 (Units 64, 67)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Heise (67)	2006	2911	1500
<b>Total</b>		<b>2911</b>	<b>1500</b>



**Buck Status & Minimum Criterion**

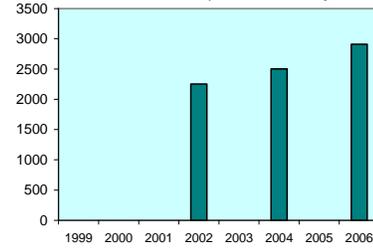
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	40	15
%4+ Pts in the Harvest	2003-05	48	30

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Heise (67)	ND	ND	ND	2252	ND	2503	ND	2911
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>2252</b>	<b>ND</b>	<b>2503</b>	<b>ND</b>	<b>2911</b>

Note: ND = no survey data available.

**Population Change  
Between Comparable Surveys**



**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	26	34	24	74	61	74	61	126
<b>Antlered Harvest</b>	105	121	191	172	125	186	178	258
<b>% 4+ Points</b>	28	42	40	40	56	46	48	51
<b>All Deer Hunters</b>	1377	1165	ND	1430	1489	1503	1672	1891
<b>Mule Deer Hunters</b>	ND	1523						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

**Harvest**

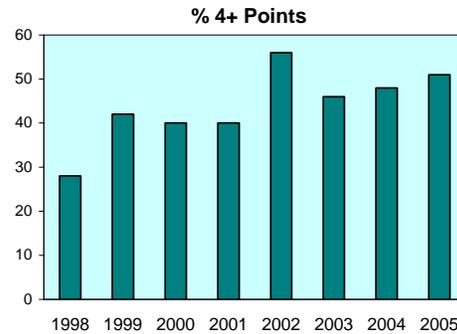
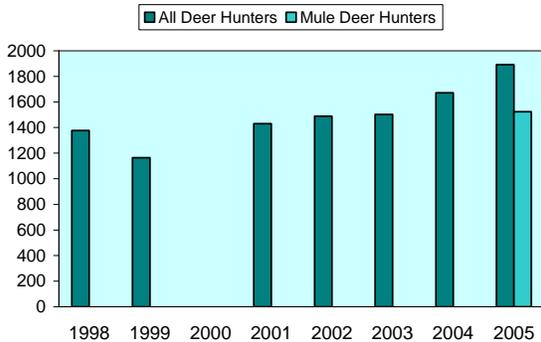
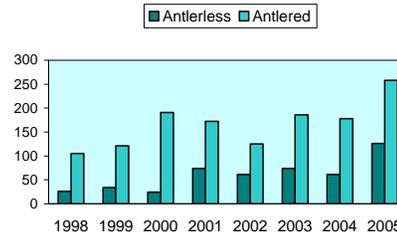


Figure 18. Mule deer Analysis Area 18.

## **Analysis Area 19 (Units 66, 66A, 69)**

### **Management Objectives**

Objectives for Analysis Area 19 (Figure 19) are to maintain a minimum of 15 bucks:100 does in post-season surveys and maintain a minimum of 30% 4-point and larger bucks in the general season harvest. Additionally, general antlerless harvest will be encouraged when trend area sightability estimates exceed 3,000 deer.

### **Historical Perspective**

Osborne Russell (1914) did not mention mule deer in this area in the 1840s. Since he liked to hunt deer and noted the presence of other big game in the general area, it is likely deer were not common. Early homesteaders reported that deer were scarce. Mule deer apparently increased during the 1940s and 1950s, perhaps in response to overgrazing by domestic livestock, which encourages shrubs over grasses. Deer numbers peaked during the late 1960s and then declined dramatically. They peaked again during the late 1980s and early 1990s, then declined again following a severe winter in 1992-1993. Recently, the population has not recovered to the level of the long-term average. Hunting seasons over the years have been adjusted in an attempt to respond to obvious fluctuations in the population. Units 66 and 69 have supported one of the longest running late-season controlled buck hunts in the state (Appendix A). Permits for this hunt have extremely high appeal but permit numbers have been reduced from a high of 200 permits in the 1980s to only 10 permits in 2005.

### **Habitat Issues**

Habitat throughout Analysis Area 19 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. The terrain is generally mild and much of the private land of the area was historically dry-farmed with cereal grains. Over half of the area is private land with the balance of public lands administered by USFS, BLM, IDL, and the Department. Approximately 250 square miles of the southwest corner of the area is Fort Hall Indian Reservation land. A significant portion of private land is now enrolled in CRP. When CRP was new, it was contributing substantially to the area's carrying capacity for deer during all seasons. Since the early 1990s, CRP has become a decadent monoculture of grass and is very undesirable deer habitat. Aspen communities provide valuable fawning habitat for mule deer and have declined in area and quality throughout the analysis area. The Tex Creek WMA, partially owned and totally managed by the Department, provides 30,000 acres of prime winter habitat for mule deer, elk, and moose. This land was purchased to mitigate for habitat inundated or destroyed by Ririe, Palisades, and Teton dams.

### **Biological Issues**

The management objective for bucks in the harvest (at least 30% of the buck harvest being  $\geq 4$  points) and buck:doe ratios (minimum of 15 bucks:100 does post-season) was met in this

analysis area. The percent  $\geq 4$  points in the buck harvest for 2003-2005 was 34, and composition counts resulted in an estimate of 21 bucks:100 does.

A trend count flown in late 2003 resulted in an estimate of 2,475 total deer, which is well below the 3,340 estimated on the 1999 survey and the antlerless harvest threshold of 3,000. The trend area was flown most recently in 2005 resulting in an estimate of 1,532 total deer. This continued downward trend is of great concern.

The analysis area is part of the focus area for the Department's Mule Deer Initiative. It borders the Southeast Region where mule deer populations are also struggling.

### **Inter-specific Issues**

In addition to mule deer, this analysis area supports a large elk population and numerous moose. Domestic livestock extensively graze the area. Inter-specific relationships are not monitored and are poorly understood. If the elk population is not kept in check, conflicts with deer on winter range could develop. This deer population has slowly declined to a low in 2005 of 1,532 concurrent with an all-time high of 5,200 elk. A graduate student project to look at elk/mule deer competition has been initiated to study this situation. Currently, agricultural practices, particularly management of CRP lands, are more beneficial to elk than deer.

### **Predation Issues**

There are no known unique or unusual predator issues affecting mule deer populations in this analysis area.

### **Winter Feeding Issues**

Mule deer have not been fed in this analysis area. Feeding should be discouraged in all but extreme emergency conditions.

### **Information Requirements**

Sightability surveys and harvest reports are needed to monitor status of the population relative to objectives. A comprehensive inventory of winter range quality and quantity, including the status and terms of enrollment of CRP lands, would be valuable for long-range planning and management. CRP is particularly important because such a large percentage of this analysis area is privately owned. A large-scale conversion from CRP back to cultivated crops could result in significant depredation problems by both mule deer and elk under current population objectives for both species. Deer and elk competition is poorly understood and information on this subject would be valuable to better manage mule deer in this area. Information on peripheral deer winter ranges is needed.

### **Literature Cited**

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

## Mule Deer Analysis Area 19 (Units 66, 66A, 69)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Tex Creek (69)	2005	1532	3000
Fall Creek (66)	2005	351	NA
<b>Total</b>		<b>1883</b>	<b>3000</b>

Note: NA = not applicable.



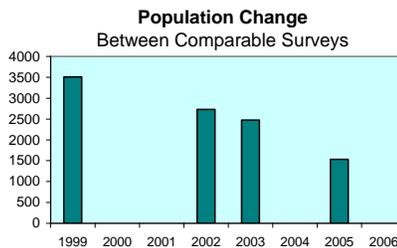
### Buck Status & Minimum Criterion

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (69)	2005	21	15
Buck:Doe Ratio (66)	2005	43	15
%4+ Pts in the Harvest	2003-05	34	30

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Tex Creek (69)	3508	ND	ND	2730	2475	ND	1532	ND
<b>Comparable Surveys Total</b>	<b>3508</b>	<b>ND</b>	<b>ND</b>	<b>2730</b>	<b>2475</b>	<b>ND</b>	<b>1532</b>	<b>ND</b>

Note: ND = no survey data available.



### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
<b>Antlerless Harvest</b>	29	49	43	142	141	127	125	39
<b>Antlered Harvest</b>	353	430	552	586	368	442	457	734
<b>% 4+ Points</b>	48	52	42	37	39	28	32	40
<b>All Deer Hunters</b>	3038	3340	ND	3994	4163	3876	4044	4602
<b>Mule Deer Hunters</b>	ND	4272						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

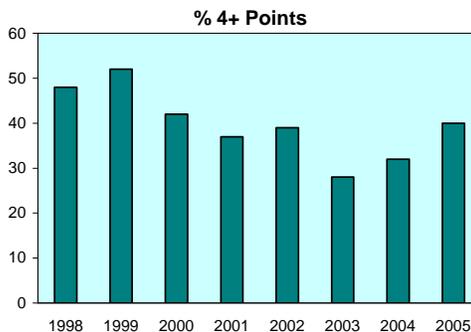
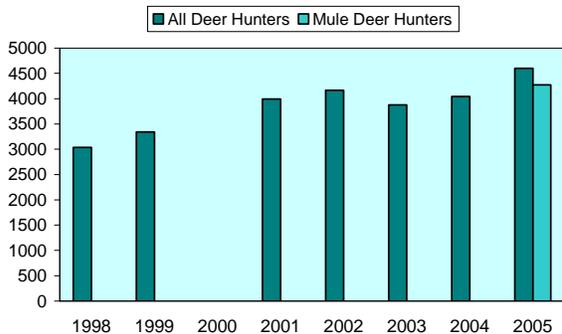
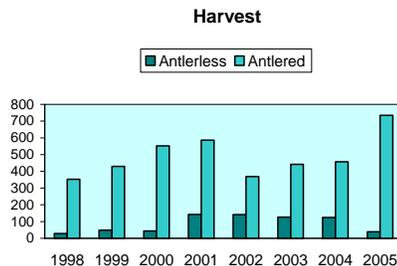


Figure 19. Mule deer Analysis Area 19.

**PROGRESS REPORT  
SURVEYS AND INVENTORIES**

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>Mule Deer Surveys and</u>
<b>PROJECT:</b>	<u>W-170-R-30</u>		<u>Inventories</u>
<b>SUBPROJECT:</b>	<u>7</u>	<b>STUDY NAME:</b>	<u>Big Game Population Status,</u>
<b>STUDY:</b>	<u>1</u>		<u>Trends, Use, and Associated</u>
<b>JOB:</b>	<u>2</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 2005 to June 30, 2006</u>		

**SALMON REGION**

**Analysis Area 4 (Units 16A, 17, 19, 19A, 20, 20A, 25, 26, 27)**

**Management Objectives**

Objectives for Analysis Area 4 (Figure 20) are to maintain  $\geq 25$  bucks:100 does in post-season surveys and  $\geq 50\%$   $\geq 4$ -point bucks in the harvest. When estimated deer numbers exceed 2,700 in the Unit 27 trend area, antlerless seasons will be considered.

**Historical Perspective**

These units represent the core of Idaho's backcountry; much of the area is designated wilderness. With the rugged, remote terrain and difficult access, management control of deer herds has been difficult at best. The forces of weather, fire, and plant succession have ultimately played a much larger role in deer populations than efforts of wildlife managers. In the late 1800s, human populations reached their peak as gold seekers poured into the area and established mining boom towns. With the miners came year-round big game hunting for meat, followed shortly by intensive livestock grazing. Depleted game herds plus heavy grazing of grass ranges set the stage for a shrub explosion in the early 1900s. At the same time, the mining boom collapsed and deer management emphasized protection from harvest; large "game preserves" were created.

By the 1930s, managers were recognizing that deer herds had grown to levels that were damaging winter ranges. Management emphasis shifted from protection to trying to achieve enough harvest to maintain winter range condition. Seasons were extended from mid-September through November to mid-December. Second and third deer tags were offered in some areas from the 1940s through the 1960s. A mid-September to late November season (Appendix A) has been standard in the backcountry units since the 1950s. Even today, much of the deer harvest is localized around access points such as roads and airstrips.

Ultimately, the shrub winter ranges could not be sustained. More controlled livestock grazing and fire suppression allowed grasses and conifers to out-compete shrub seedlings; shrub ranges began to revert to grasslands and forests. As the habitat went, so went the deer; long-term trend counts in Unit 27 show a steady decline in deer numbers from the 1920s to the mid-1960s. Since

that time, the trend in deer numbers and harvest has been relatively flat. For example, 2,900 deer were counted during a 1968 helicopter deer survey of Unit 27. During helicopter elk surveys in Unit 27 in 1995, 1999, 2002, and 2006, staff counted 2,625-2,911 deer incidental to elk counts.

### **Habitat Issues**

Habitat ultimately determines deer densities and productivity. In these units where hunter harvest has historically been light, particularly for females, deer herds could be expected to exist much of the time at densities approaching carrying capacity (unless suppressed by predators or temporarily set back by severe winters). Deer herds at or near carrying capacity can be expected to be relatively unproductive, recruiting few fawns, thus few bucks into the population, and these herds can be expected to produce bucks with small antlers. Unit 27 does produce relatively small-antlered bucks for their age, but this has not been definitively tied to deer densities or habitat. Continued shrub-land deterioration, conifer encroachment, and booming elk populations will probably continue to further erode habitat capacity for deer. Fire may enhance summer ranges and winter ranges in the more moist northern units, but fire is not likely to benefit the more arid southern winter ranges. In the summer of 2000, hundreds of acres burned within units 26 and 27. Over time it will be interesting to verify any correlation to fire and mule deer population performance. Already established in some areas, the spread of noxious weeds such as knapweed, rush skeletonweed, and leafy spurge could ultimately have significant impacts on winter range productivity.

### **Biological Issues**

Very little mule deer aerial survey data has been collected in these units since the 1960s. What data has been collected suggests a fairly stable number of deer since that time. For example, a 1965 helicopter trend count in Unit 27 resulted in a tally of 1,963 deer. The same area flown in 1968 resulted in 2,929 deer observed, while 2,133 deer were counted incidental to elk surveys in 1995. Buck harvests since the mid-1970s in Unit 27 are variable, but indicate no definite upward or downward trend. Similarly, there is no evident trend in percent 4-point bucks in the harvest, which varies annually, but averages approximately 55%. Since large fires in 2000 in the southern portion of the analysis area, some outfitters have reported increased deer numbers and antler development. A trend survey was done in Unit 27 in spring 2006 with the estimated number of deer at 2,718. This estimate correlates very well with past surveys.

### **Inter-specific Issues**

Current high elk densities may be having some impact on the area's capacity to produce deer. White-tailed deer, a potentially strong competitor, are rare south of Salmon River but occur at greater densities in the more northern units. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Bighorn sheep also share some ranges but generally overlap little with deer. Livestock rangeland grazing, another potential source of competition, is generally a very minor activity in most of these units.

## **Predation Issues**

Black bear densities appear to be low to moderate in the southern units and increasing towards the north. Mountain lion densities are at least moderate, perhaps high, and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats and golden eagles are present, but are not thought to cause significant predation on deer. Wolves reintroduced by USFWS have become well established in these units. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer herds below 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 will be with the new mix of large predators.

## **Winter Feeding Issues**

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

## **Information Requirements**

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

## Mule Deer Analysis Area 4 (Units 16A, 17, 19, 19A, 20, 20A, 25, 26, 27)

**Trend Area Status & Antlerless Harvest Threshold**

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Middle Fork (27)	2006	2718	2700
<b>Total</b>		<b>2718</b>	<b>2700</b>

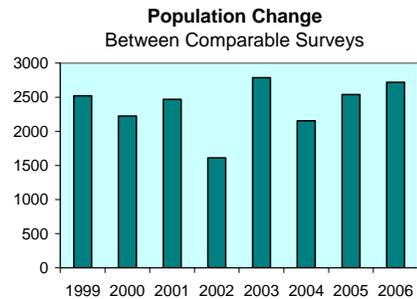


**Buck Status & Minimum Criterion**

	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2005	31	25
%4+ Pts in the Harvest	2002-04	60	50

**Trend Area Surveys**

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Middle Fork (27)	2519	2225	2468	1610	2785	2154	2540	2718
<b>Comparable Surveys Total</b>	<b>2519</b>	<b>2225</b>	<b>2468</b>	<b>1610</b>	<b>2785</b>	<b>2154</b>	<b>2540</b>	<b>2718</b>



**Analysis Area Harvest Statistics**

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	72	14	54	65	50	50	79	97
Antlered Harvest	782	402	530	689	693	796	874	1044
% 4+ Points	64	55	58	55	61	58	61	64
All Deer Hunters	5661	3424	ND	3555	4007	4106	3946	4132
Mule Deer Hunters	ND	3389						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

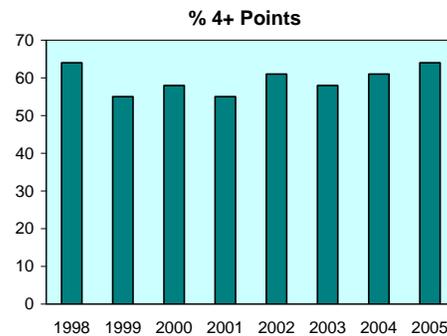
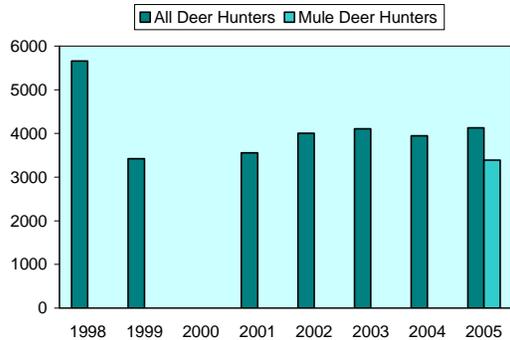
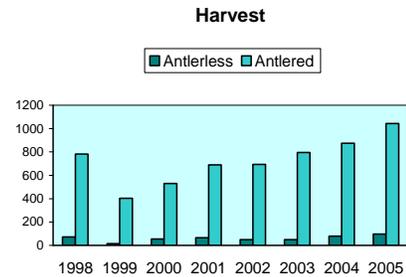


Figure 20. Mule deer Analysis Area 4.

## **Analysis Area 5 (Units 21, 21A, 28, 36B)**

### **Management Objectives**

Objectives for Analysis Area 5 (Figure 21) are to maintain  $\geq 15$  bucks:100 does in post-season surveys and  $\geq 30\%$   $\geq 4$ -point bucks in the harvest. When estimated deer numbers exceed 1,800 in North Fork trend area and 2,500 in Challis trend area, antlerless seasons will be considered.

### **Historical Perspective**

Mule deer were scarce and harvests low for much of the early part of the twentieth century. From 1917 until the 1940s, parts of Units 28 and 36B were designated as no hunting “game preserves.” By the early 1940s, deer herds had expanded to the point that long, either-sex seasons were being offered (early Oct to mid-Nov). This pattern continued into the 1970s, when the antlerless portion of the season began to be shortened and total season length was shortened to include mid-October to mid-November. In 1991, concerns for mature buck escapement led to shifting the deer season earlier so that it ended in October before the rut began. Since 1991, the deer season framework (Appendix A) has been the most conservative these units have seen in at least 50 years. The 2005 hunting season was shifted to 10-31 October in an attempt to establish consistent season framework across the state.

Hunter numbers have dropped from 4,000-5,000 people harvesting 700-1,600 bucks annually to 2,700-3,700 people harvesting 800-950 bucks. Antlerless deer harvest was eliminated in 1998 and buck harvest declined in subsequent years. This decline may be attributable to increased competition between does and bucks for limited forage resources and/or decreases in hunter numbers.

Harvest increased substantially in this analysis area in 2005. A total of 1,909 bucks were harvested during the any-weapon season. The 5-year average prior to the 2005 season was 879. This harvest was correlated somewhat with increases in population data. Weather and climatic factors did not seem to be drastically different than in other years.

### **Habitat Issues**

Cattle ranching, livestock grazing, mining, timber harvest, and recreation are dominant human uses of the landscape in Analysis Area 5. Deer depredations on agricultural crops are minor. Intrusion of human development into winter ranges is accelerating.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. Deer herds at or near carrying capacity can be expected to be relatively unproductive, recruiting few fawns, thus few bucks into the population; antlers will be relatively small for the age of the buck; and antler drop will occur relatively early in winter. Deer herds in this group of units exhibit all these traits to some degree, but this has not been definitively tied to deer densities or habitat. In some areas, deer winter in mature stands of mountain mahogany that are relatively stagnant and unproductive. Elk may have removed much of the mountain mahogany forage within reach of deer. 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**

A trend area in Unit 21 near North Fork has been surveyed annually since December 1990 and a similar trend area has been surveyed in Unit 36B south of Challis since December 1994. However, the value of these surveys as indicators of total deer numbers is questionable; strong variations, including biological impossibilities, occur from one year to the next. These flights do provide insights into herd productivity and sex/age structure. Fawn production has apparently declined since 2000, with average fawn ratios in early winter decreasing (13-16:100 does). Buck:doe ratios in Unit 21 increased after the 1991 season change, and have since generally stabilized at 15-19 bucks:100 does with 2 years of higher (28-32) ratios since 2002. Buck:doe ratios historically were higher in Unit 36B, generally closer to 20 bucks:100 does. However, ratios declined to 11 bucks:100 does between 1999 and 2003. Buck ratios increased in winters 2003 and 2004 (23-31 bucks:100 does) exceeding management objectives. In December 2005, buck:doe ratios once again dipped to 13-18:100.

Fawn monitoring information for the 2005-2006 winter indicated fawn mortality at 78% within this analysis area. Observational information indicated that adult mortality could have been significant in this area as well. It will be of interest to note yearling buck harvest in fall of 2006 and composition in winter 2006 aerial surveys.

### **Inter-specific Issues**

Area 5 contains the majority of the most productive deer units in Salmon Region; parts of Units 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 impact may be particularly pronounced during severe winters when deep snow moves elk down onto deer winter ranges. White-tailed deer, a potentially strong competitor, are mostly restricted to private lands along major riparian areas between Salmon and Gibbonsville. Pronghorn, bighorn sheep, and mountain goat share some ranges but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, has generally been reduced in recent years.

### **Predation Issues**

Black bear densities appear to be moderate in Analysis Area 5. Mountain lion densities are at least moderate, perhaps high in some areas, and appear to have increased in recent years, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to account for significant predation on deer. Reintroduction of gray wolves by USFWS has resulted in establishment of  $\geq 7$  packs in the analysis area:  $\geq 2$  in Unit 28, 2 each in Units 21 and 36B, and  $\geq 1$  in Unit 21A. The addition of wolves will likely have an impact on black bear, mountain lion, and coyote populations. At some level, predation could benefit deer herds to the extent that it reduces elk competition and keeps deer 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, the net impact of predation with the new mix of large predators is unclear.

### **Winter Feeding Issues**

Limited amounts of deer feeding occur about once per decade in the North Fork area. Minor private feeding activities also occur from time to time.

### **Information Requirements**

Surveys have been conducted since 1990 in Unit 21 and 1994 in Unit 36B, providing some long-term data on mule deer herd sex and age composition and trends in deer numbers. However, knowledge of deer population characteristics is limited to these areas and may not adequately reflect the entire analysis area. Impacts of elk on mule deer production and survival are suspected but not quantified. The most productive deer herds are those maintained at a level well below carrying capacity. Better information is needed to identify appropriate deer densities that will maintain optimum productivity and harvest. Migratory patterns are largely unknown. Potential impact of the new mix of large predators is unknown.

## Mule Deer Analysis Area 5 (Units 21, 21A, 28, 36B)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
North Fork (21)	2006	1223	1800
Challis (36B)	2006	2348	2500
<b>Total</b>		<b>3571</b>	<b>4300</b>



### Buck Status & Minimum Criterion

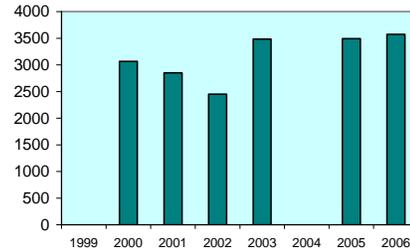
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio	2006	13	15
%4+ Pts in the Harvest	2002-04	31	30

### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
North Fork (21)	ND	1104	1284	459	1273	ND	1218	1223
Challis (36B)	2163	1963	1568	1993	2210	1721	2272	2348
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>3067</b>	<b>2852</b>	<b>2452</b>	<b>3483</b>	<b>ND</b>	<b>3490</b>	<b>3571</b>

Note: ND = no survey data available.

### Population Change Between Comparable Surveys

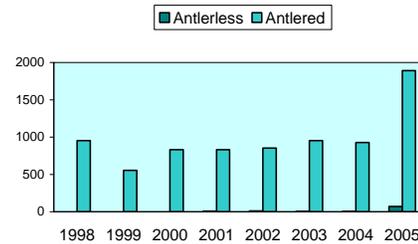


### Analysis Area Harvest Statistics

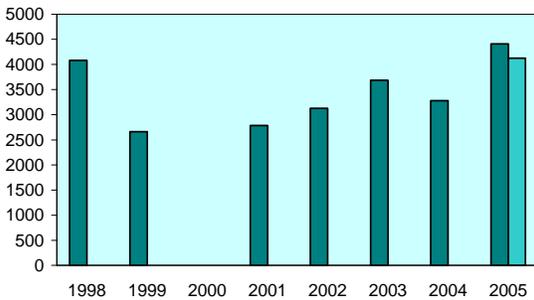
	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	0	0	1	8	10	3	4	71
Antlered Harvest	952	553	832	830	852	954	927	1890
% 4+ Points	27	28	34	23	30	32	33	44
All Deer Hunters	4082	2660	ND	2786	3127	3683	3280	4409
Mule Deer Hunters	ND	4127						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

### Harvest



### All Deer Hunters Mule Deer Hunters



### % 4+ Points

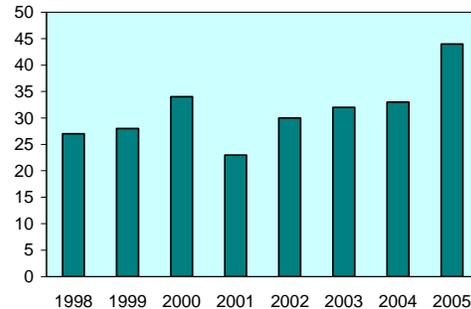


Figure 21. Mule deer Analysis Area 5.

## **Analysis Area 10 (Units 30, 30A, 58, 59, 59A)**

### **Management Objectives**

Objectives for Analysis Area 10 (Figure 23) are to maintain  $\geq 15$  bucks:100 does in post-season surveys and to maintain  $\geq 30\%$   $\geq 4$ -point bucks in the harvest. When estimated deer numbers exceed 1,400 in the Unit 58/59A trend area and 1,200 in the Unit 30/30A trend area, general antlerless seasons will be considered.

### **Historical Perspective**

Mule deer were scarce and harvests low for much of the early part of the twentieth century. Parts of some units were designated as no hunting “game preserves.” By mid-century, mule deer had become the predominant big game animal. These units produced high mule deer harvests in the 1950s and 1960s. By the 1970s, harvests had dropped by 50% as more conservative management strategies were implemented. Despite 2 decades of very conservative antlerless harvests and increasingly conservative buck seasons, mule deer harvests have remained relatively stable since the early 1970s in Units 30 and 30A and since the early 1980s in Units 58, 59, and 59A. Although deer herds declined well before any significant increase in elk numbers, current high elk densities may well be helping to suppress deer populations in Units 30 and 30A. Further south in Units 58, 59, and 59A where elk densities have also increased substantially, trend counts suggest that deer populations are now at or slightly above late 1960s levels.

Many of these deer, particularly in Lemhi Valley, migrate to higher-quality summer ranges in Montana, returning to Idaho winter ranges in November.

### **Habitat Issues**

The BLM or USFS administers much of the land in these units, with private lands mostly restricted to valley bottoms. Cattle ranching, livestock grazing, and recreation are the dominant human uses of the landscape in these units. This is in a generally arid region where forage production and deer harvest can be strongly influenced by growing season precipitation. Deer depredations on agricultural crops are common and are especially pronounced in dry years in Units 30 and 30A, but have not been a problem in Units 58, 59, and 59A.

Habitat ultimately determines deer densities and productivity. However, specific limiting factors within the habitat are poorly understood. In some areas, deer winter in mature stands of mountain mahogany which appear to have become relatively stagnant and unproductive. Elk and livestock may have removed much of the mahogany canopy within reach of deer. Forests are slowly encroaching into shrub and grassland communities. The spread of noxious weeds, such as knapweed and leafy spurge, could ultimately have significant impacts on winter range productivity.

Traditionally, deer in Units 58, 59, and 59A concentrate on winter ranges at the south end of the Beaverhead Range. Heavy snows in the late 1960s placed tremendous pressure on very narrow portions of these units, killing many browse plants. Winter range habitat condition is still poor to

fair for many of the bitterbrush and mountain mahogany stands important to wintering deer. Mountain mahogany, the primary winter browse species, is still heavily hedged with little regeneration. Winter domestic sheep grazing is contributing to this overuse.

### **Biological Issues**

This analysis area contains 2 trend areas: Leadore (Units 30/30A) in Salmon Region and Reno Point (Units 58/59A) in Upper Snake Region. Total deer estimated in 2003 for both areas combined (2,563) fell slightly below the antlerless harvest threshold of 2,600 for the first time in several years, but rebounded to over 3,100 deer in 2005. Deer numbers in the Leadore survey area declined approximately 40% after 3 years of above-threshold levels from 1999 to 2001.

Buck ratios have improved in recent years and now meet the management objective (minimum of 15 bucks:100 does post-season). However, percent of the buck harvest  $\geq 4$  points has remained below objective ( $\geq 30\%$ ) since 1997.

### **Inter-specific Issues**

Current high elk densities in Units 30 and 30A may be having some impact on the area's capacity to produce deer. However, this is not believed to be a problem in Units 58, 59, and 59A because deer and elk appear to use different winter and summer ranges. It should be noted, however, that deer-elk interactions are not well understood. White-tailed deer, a potentially strong competitor, are mostly restricted to private agricultural lands along major riparian areas. In some limited areas, mountain goats and mule deer may be competing for the same mountain mahogany winter ranges. Antelope and bighorn sheep also share the range but generally overlap little with mule deer. Livestock rangeland grazing, another potential source of competition, has generally been reduced in recent years, but is still a concern on the southern winter ranges.

### **Predation Issues**

Black bear densities appear to be low and stable. Mountain lion densities are low to moderate and appear to have increased in recent years in Units 30 and 30A, probably at least in part due to increased elk densities. Coyotes are common and have an unknown impact on deer populations. Bobcats, red fox, and golden eagles also occur in the area but are not thought to cause significant predation on deer.

### **Winter Feeding Issues**

Winter feeding has not occurred in these units in the past few years.

### **Information Requirements**

Survey data on mule deer herd sex and age composition and trends in deer numbers have been inadequate in this analysis area but are improving. Impacts of elk on mule deer production and survival are suspected but not quantified. The most productive deer herds are those maintained at a level below carrying capacity (at which point recruitment equals mortality and there is no

harvestable surplus). Better information is needed to identify appropriate deer densities to maintain optimum productivity and harvest. Although strong interstate movements have been suspected, very little information exists on migration patterns. The Reno Point trend area was included in Upper Snake Region's fawn mortality work starting in 2000-2001, providing information on movement patterns of deer from this winter range.

Deer in Unit 30 were radio-marked in December 2003 and 2004 as part of the fawn-monitoring project in Salmon Region. As suspected, some deer migrated to Montana summer ranges. In some cases, migration distances were significant. One collar was shed approximately 96 km north of the animal's winter range near the Continental Divide in the Anaconda-Pintlar Wilderness.

## Mule Deer Analysis Area 10 (Units 30, 30A, 58, 59, 59A)

### Trend Area Status & Antlerless Harvest Threshold

Trend Area (Unit)	Current Status		Antlerless Harvest
	Survey Year	Total Deer	Threshold Total Deer
Reno Gulch (58/59A)	2005	2323	1400
Leadore (30/30A)	2006	1350	1200
<b>Total</b>		<b>3673</b>	<b>2600</b>



### Buck Status & Minimum Criterion

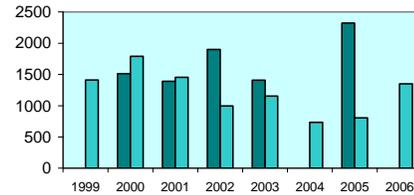
	Survey Year(s)	Current Status	Minimum Criterion
Buck:Doe Ratio (30/30A)	2006	14	15
Buck:Doe Ratio (58/59A)	2005	27	15
%4+ Pts in the Harvest	2003-05	29	30

Note: Leadore Buck:Doe Ratio=16, 58 bucks:355 does

### Population Change

Between Comparable Surveys

■ Reno Point (58/59A) ■ Leadore (30/30A)



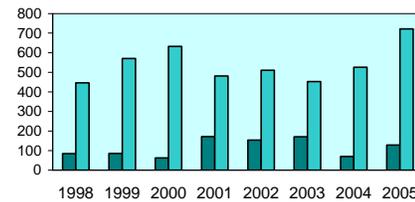
### Trend Area Surveys

Trend Area (Unit)	Deer Numbers							
	1999	2000	2001	2002	2003	2004	2005	2006
Reno Point (58/59A)	ND	1514	1391	1900	1407	ND	2323	ND
Leadore (30/30A)	1411	1792	1453	996	1156	734	805	1350
<b>Comparable Surveys Total</b>	<b>ND</b>	<b>3306</b>	<b>2844</b>	<b>2896</b>	<b>2563</b>	<b>ND</b>	<b>3128</b>	<b>1350</b>

Note: ND = no survey data available.

### Harvest

■ Antlerless ■ Antlered

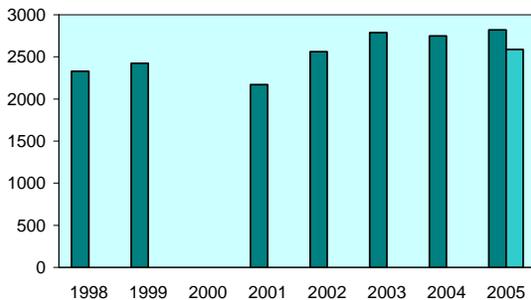


### Analysis Area Harvest Statistics

	1998	1999	2000	2001	2002	2003	2004	2005
Antlerless Harvest	85	86	63	171	153	170	70	129
Antlered Harvest	446	571	633	481	510	452	526	721
% 4+ Points	25	18	27	24	24	29	30	30
All Deer Hunters	2328	2423	ND	2171	2560	2788	2748	2820
Mule Deer Hunters	ND	2588						

Note: ND = no data available. All deer hunters includes both white-tailed deer and mule deer hunters.

■ All Deer Hunters ■ Mule Deer Hunters



### % 4+ Points

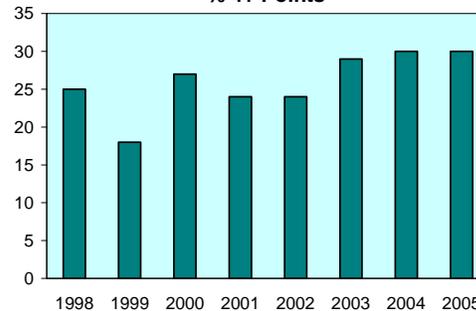


Figure 23. Mule deer Analysis Area 10.

**APPENDIX A**  
**IDAHO**  
**2005 SEASON**  
**MULE DEER RULES**

# Big Game Seasons

**Deer, Elk, Antelope**  
January - December 2005

**Bear, Mountain Lion**  
August 2005 - June 2006



**RULES  
2005**



*Photo courtesy Jerry Hugo*

## **Including Controlled Hunts for Deer, Elk, Antelope, and Black Bear**

- **Controlled Hunt application period:  
May 1 - May 31.**
- **Use for all controlled hunts, including  
2006 spring bear.**
- **Apply early for controlled hunts to win big buck\$.  
See page 20 for application form.**
- **APPLY FOR A SUPER HUNT TAG, HELP PAY FOR ACCESS YES!  
See page 62.**



## ATTENTION DEER HUNTERS!

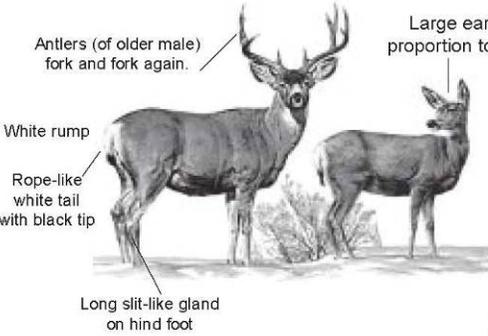
Beginning this year, deer hunters can choose either a regular deer tag or a white-tailed deer tag. The regular deer tag is valid for either mule deer or white-tailed deer unless a hunt is restricted to a particular species. General season hunting opportunities with a regular deer tag are listed on pages 23-27.

The white-tailed deer tag is ONLY valid for white-tailed deer. General hunting opportunities with a white-tailed deer tag are listed on pages 28-30.

Illustration by Robert Neaves courtesy of Montana Fish, Wildlife & Parks

### DEER

#### CHARACTERISTICS OF A MULE DEER



Antlers (of older male) fork and fork again.

Large ears in proportion to head

White rump

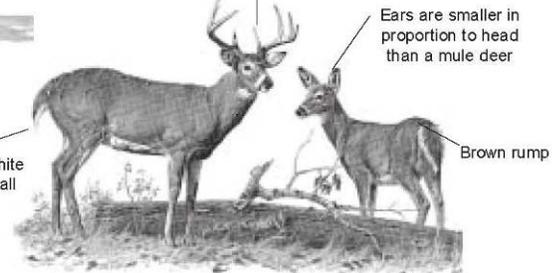
Rope-like white tail with black tip

Long slit-like gland on hind foot

**CAUTION:**

Antlers on yearling buck white-tailed and mule deer may look similar.

#### CHARACTERISTICS OF A WHITE-TAILED DEER



Antlers (of older males) consist of main beams with 3 to 5 tines projecting upward

Ears are smaller in proportion to head than a mule deer

Brown rump

Tail is brown with white fringe. Erect tail is all white

#### DEFINITIONS

**Antlered Buck** — A deer with an antler or antlers at least three inches in length as measured from the top of the skull.

**Antlerless** — A deer without antlers or with antlers less than three inches in length as measured from the top of the skull.

**Either Species** — Mule deer or white-tailed deer.

**REGULAR DEER**

### 2005 REGULAR DEER TAG GENERAL ANY WEAPON SEASONS

Unit(s)	Antlered	Antlerless	Notes
1	Oct 10 - Oct 31 <i>(White-tailed deer ONLY)</i>	Nov 1 - Dec 1 <i>(White-tailed deer ONLY)</i>	
	Nov 1 - Dec 1		
2, 3, 4A, 5, 6	Oct 10 - Nov 9	Nov 1 - Dec 1 <i>(White-tailed deer ONLY)</i>	
	Nov 10 - Dec 1 <i>(White-tailed deer ONLY)</i>		
4, 7, 9	Oct 10 - Nov 9	Oct 10 - Nov 9 <i>(White-tailed deer ONLY)</i>	
8, 8A, 10, 10A, 12, 15, 16	Oct 10 - Nov 3	Oct 10 - Nov 3	
11, 11A	Oct 10 - Nov 3 <i>(White-tailed deer ONLY)</i>	Oct 10 - Nov 3 <i>(White-tailed deer ONLY)</i>	
13, 14, 18	Oct 10 - Nov 3 <i>(White-tailed deer ONLY)</i>	Oct 10 - Oct 16 <i>(White-tailed deer ONLY)</i>	<i>Unit 13 has limited access</i>
16A, 17, 19, 20	Sep 15 - Nov 18	Sep 15 - Nov 18	
19A	Oct 10 - Oct 31	Oct 10 - Oct 31 <i>(Youth Hunt ONLY)</i>	<i>See note 1, Page 25</i>
20A, 26, 27	Sep 15 - Oct 31	None	

**2005 REGULAR DEER TAG GENERAL ANY WEAPON DEER SEASONS**

**REGULAR DEER**

Unit(s)	Antlered	Antlerless	Notes
21, 21A, 28, 29, 30, 30A, 36, 36A, 36B, 37, 37A	Oct 10 - Oct 31	None	Motorized Vehicle Restriction Units 29, 30, 30A, 36A, 37, 37A See note 10, Page 25
22	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 25
23, 24, 25	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 2, Page 25
31	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 3, Page 25
32	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 3, Page 25 Motorized Vehicle Restriction, See note 10, Page 25
		Oct 10 - Nov 24	MOSTLY PRIVATE PROPERTY, ONLY a small portion of unit is open to Antlerless hunting, See note 4, Page 25 Short-Range weapons ONLY, Motorized Vehicle Restriction, See note 10, Page 25
32A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 25 Motorized Vehicle Restriction, See note 10, Page 25
33, 34, 35, 39, 43	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 25
38	Oct 10 - Oct 31	Oct 10 - Nov 24	See note 5, Page 25
40, 41	Oct 10 - Oct 23 (Two-point deer ONLY)	Oct 10 - Nov 24 (Youth Hunt ONLY. ONLY in a small portion of these units)	Youth Hunt Area Restrictions: See page 25. Notes 1, 6, and 11 apply. Antlered and antlerless hunting open Oct 10 - Oct 23. Antlered deer limited to 2-point or smaller deer. Antlerless harvest ONLY Oct 24 - Nov 24.
42	Oct 10 - Oct 23 (Two-point deer ONLY)	None	
46	Oct 10 - Oct 31	None	See note 3, Page 25
48, 49, 50, 51, 58, 59, 59A,	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 25 Motorized Vehicle Restriction, See note 10, Page 25
52A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See note 1, Page 25
53	Oct 10 - Oct 31	Oct 10 - Oct 31	See note 7, Page 25 Motorized Vehicle Restriction, See note 10, Page 25
56	Oct 10 - Oct 16	None	Motorized Vehicle Restriction, See note 10, Page 25
	Oct 17 - Oct 31 (Two-point deer ONLY)		
60, 61, 62, 62A, 63, 64, 65	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 6, Page 25
60A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 8, Page 25
63A	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	Short-range weapons ONLY See note 1, Page 25
66, 69	Oct 10 - Oct 31	None	Motorized Vehicle Restriction, See note 10, Page 25
66A	Oct 10 - Oct 31	None	
67	Oct 10 - Oct 31	Oct 10 - Oct 31 (Youth Hunt ONLY)	See notes 1 & 9, Page 25
68, 71, 72, 73A, 74	Oct 10 - Oct 31	None	
70, 73	Oct 10 - Oct 16 (4-point or larger deer ONLY)	None	Motorized Vehicle Restriction, See note 10, Page 25
75, 76, 77, 78	Oct 10 - Oct 24	None	Motorized Vehicle Restriction Units 75, 77, 78, See note 10, Page 25

**Notes:**

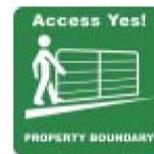
- 1 — YOUTH HUNTS: ONLY hunters 12 - 17 years of age with a valid license and tag may hunt either sex deer in this hunt.
- 2 — Short-range weapons ONLY in that portion of Unit 24 within the following boundary: Beginning in McCall at the junction of State Highway 55 and Boydston Street, then south on Boydston 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.
- 3 — Short-range weapons ONLY on the islands in the Snake River.
- 4 — ONLY that portion of Unit 32 within the following boundary is open to hunt for antlerless deer: Beginning at the intersection of State Highway 52 and the Montour Road, south on the Montour Road to Shalerock Road, west on Shalerock Road to the Black Canyon Canal, south on the Black Canyon Canal to State Highway 16, west on State Highway 16 to State Highway 52, north on State Highway 52 to the Payette River in the city of Emmett, then west on the Payette River to where the North Side Canal drains into the Payette River, then east along the North Side Canal to Black Canyon Dam, then east along State Highway 52 to the point of beginning. SHORT-RANGE WEAPONS ONLY.
- 5 — Short-range weapons ONLY. EXCEPT that portion of Unit 38 within the Lake Lowell Sector of the Deer Flat National Wildlife Refuge is CLOSED.
- 6 — Short-range weapons ONLY on CJ Strike, Mud Lake, and Chester Wetlands Wildlife Management Areas.
- 7 — Short-range weapons ONLY in that portion of Unit 53 west of U. S. Highway 93. Archery ONLY east of U.S. Highway 93.
- 8 — Short-range weapons ONLY in that portion of Unit 60A south and east of the North (Henrys) Fork Snake River, and that portion within one mile north and west of the North Fork Snake River.
- 9 — Short-range weapons ONLY in that portion of Unit 67 south and west of State Highway 26.
- 10 — 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. A full-sized automobile shall be defined as any motorized vehicle with a gross vehicle weight in excess of 1500 pounds. See page 13.
- 11 — Youth Hunt Area: Only that portion of Units 40 and 41 within the following boundary are open to youth antlerless hunting - starting at the Oregon border on the Snake River then upstream to the C.J. Strike Dam Road then south on C.J. Strike Dam Road to Highway 78 at Rim Rock High School, then east on Highway 78 to Highway 51, then south on Highway 51 to the Shoofly Cut-off Road, then west on the Shoofly Cut-off Road to the Mudflat Road, then north on the Mudflat Road to Highway 78, continue west on Highway 78 to the powerline that crosses the Snake River approximately 3 miles south of the Water's Ferry Bridge at the 22.5 mile marker, then west along the powerline to the Oregon border, then north along the Oregon border to the Snake River, the point of beginning.

REGULAR  
DEER



## Idaho's Super Hunt & Super Hunt Combo

Proceeds from the Super Hunt lottery go to Idaho's ACCESS YES! program. ACCESS YES! provides hunting and fishing access on private and to public land.



See page 62 for an application.  
Major credit cards accepted!

INTERNET ADDRESS: <http://fishandgame.idaho.gov>

**2005 REGULAR DEER TAG GENERAL DEER ARCHERY SEASONS**  
**Archery Permit Required**

**REGULAR DEER**

Unit(s)	Antlered	Antlerless	Notes
1	Aug 30 - Sep 30 Dec 10 - Dec 23	Aug 30 - Sep 30 (White-tailed deer ONLY) Dec 10 - Dec 23 (White-tailed deer ONLY)	
2	Aug 30 - Sep 30	Aug 30 - Sep 30 (White-tailed deer ONLY)	See note 1, Page 27
	Nov 1 - Dec 1	Nov 1 - Dec 1 (White-tailed deer ONLY)	See note 2, Page 27
	Dec 10 - Dec 23	Dec 10 - Dec 23 (White-tailed deer ONLY)	See note 1, Page 27
3, 4, 4A, 5, 6, 7, 9	Aug 30 - Sep 30	Aug 30 - Sep 30	
	Dec 10 - Dec 23	Dec 10 - Dec 23	
8, 8A, 10, 10A, 11A, 12, 15	Aug 30 - Sep 30	Aug 30 - Sep 30	
19A	Aug 30 - Sep 30	Aug 30 - Sep 30	
21, 21A, 29, 30, 30A, 36, 36A, 36B, 37, 37A	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction Units 29, 30, 30A, 36A, 37, 37A See note 5, Page 27
22, 23, 24, 25	Aug 30 - Sep 30	Aug 30 - Sep 30	
28	Dec 1 - Dec 31	Dec 1 - Dec 31	
31	Aug 30 - Sep 30	Aug 30 - Sep 30	
32, 32A	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction, See note 5, Page 27
33, 34, 35	Aug 30 - Sep 30	Aug 30 - Sep 30	
38	Aug 30 - Sep 30	Aug 30 - Sep 30	See note 3, Page 27
39	Nov 10 - Nov 30	Nov 10 - Nov 30	See note 6, Page 27
40, 41, 42	Aug 30 - Sep 30 (Two-point deer ONLY)	Aug 30 - Sep 30	
43, 46	Aug 30 - Sep 30	Aug 30 - Sep 30	
47, 48, 49, 50, 51	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction, See note 5, Page 27
52A	Aug 30 - Sep 30	Aug 30 - Sep 30	
53	Aug 30 - Dec 19	Aug 30 - Dec 19	See note 4, Page 27 Motorized Vehicle Restriction, See note 5, Page 27
54	Aug 30 - Sep 30	Aug 30 - Sep 30	
55	Nov 25 - Dec 19	Nov 25 - Dec 19	
56	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction, See note 5, Page 27
57	Aug 30 - Sep 30	Aug 30 - Sep 30	
58, 59, 59A	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction, See note 5, Page 27
60, 60A, 62, 63A, 64, 65, 66, 67, 69	Aug 30 - Sep 30	Aug 30 - Sep 30	Motorized Vehicle Restriction, Units 66 & 69 See note 5, Page 27
	Nov 1 - Dec 19 (White-tailed deer ONLY)	Nov 1 - Dec 19 (White-tailed deer ONLY)	
61, 62A	Aug 30 - Sep 30	Aug 30 - Sep 30	
63	Aug 30 - Sep 30	Aug 30 - Sep 30	
	Nov 1 - Dec 19	Nov 1 - Dec 19	
66A, 68, 71, 72, 73A, 74, 76	Aug 30 - Sep 30	None	
70, 73	Aug 30 - Sep 30 (4-point or larger deer ONLY)	None	Motorized Vehicle Restriction, See note 5, Page 27
75, 77, 78	Aug 30 - Sep 30	None	Motorized Vehicle Restriction, See note 5, Page 27

**Notes:**

- 1 — Farragut State Park and Farragut Wildlife Management Area are CLOSED.
- 2 — Farragut State Park and Farragut Wildlife Management Area ONLY.
- 3 — That portion of Unit 38 within the Lake Lowell Sector of the Deer Flat National Wildlife Refuge is CLOSED.
- 4 — That portion of Unit 53 east of U.S. Highway 93.
- 5 — 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. A full-sized automobile shall be defined as any motorized vehicle with a gross vehicle weight in excess of 1500 pounds. See page 13.
- 6 — AREA CLOSURE: That portion of Unit 39 within Ada County AND that portion of Unit 39 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 is CLOSED.
- 7 — 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.

**REGULAR  
DEER**

**2005 REGULAR DEER TAG GENERAL DEER MUZZLELOADER SEASONS**  
Muzzleloader Permit Required

Unit(s)	Antlered	Antlerless	Notes
4, 7	Nov 10 - Dec 1	Nov 10 - Dec 1 <i>(White-tailed deer ONLY)</i>	
39	None	Sep 8 - Sep 30	<i>Traditional Muzzleloader ONLY Motorized Vehicle Restriction, See note 5, Page 27</i>

**2005 CONTROLLED DEER HUNTS (14,002 Permits Plus Unlimited Permits)  
ANTLERED DEER**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1001	Aug 30 - Dec 1	1	50	
1002	Oct 10 - Nov 3	11	74	<i>Mule deer ONLY</i>
1003	Nov 10 - Nov 24	11	35	<i>Mule deer ONLY</i>
1004	Oct 10 - Nov 3	11A	63	<i>Mule deer ONLY, Limited Access</i>
1005	Oct 10 - Nov 3	13	200	<i>See note 1, Page 34, Mule deer ONLY</i>
1006	Oct 10 - Nov 3	14	180	<i>Mule deer ONLY</i>
1007	Oct 10 - Nov 3	18	120	<i>Mule deer ONLY</i>
1008	Nov 10 - Nov 24	19A	10	
1009	Nov 1 - Nov 18	20A	Unlimited	
1010	Nov 10 - Nov 24	22	40	
1011	Nov 10 - Nov 24	23	25	
1012	Nov 10 - Nov 24	25	10	
1013	Nov 1 - Nov 18	26	Unlimited	
1014	Nov 1 - Nov 18	27	Unlimited	<i>3-point or larger deer ONLY</i>
1015	Nov 10 - Nov 24	31	30	
1016	Nov 10 - Nov 24	32	40	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1017	Nov 10 - Nov 24	32A	30	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1018	Aug 15 - Sep 24	39-1	199	
1019	Nov 10 - Nov 24	40-1	195	
1020	Nov 10 - Nov 24	41	100	<i>Short-range weapons ONLY on CJ Strike WMA</i>
1021	Nov 10 - Nov 24	42	74	
1022	Oct 5 - Nov 9	44-1	225	
1023	Oct 5 - Oct 31	45	75	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1024	Nov 10 - Nov 24	45	50	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1025	Oct 5 - Oct 31	47-1	90	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1026	Nov 15 - Nov 30	47-2* (see pg 34)	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1027	Nov 10 - Nov 24	48	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1028	Nov 10 - Nov 24	49-1	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1029	Nov 1 - Nov 30	50-1	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1030	Oct 5 - Oct 31	52	75	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1031	Nov 10 - Nov 24	52	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1032	Nov 10 - Nov 24	52A	10	
1033	Oct 5 - Oct 31	54	450	
1034	Nov 15 - Nov 30	54	20	
1035	Aug 15 - Sep 24	55	25	
1036	Oct 5 - Oct 31	55	350	
1037	Oct 5 - Oct 31	57	109	
1038	Nov 15 - Nov 30	57	10	
1039	Nov 1 - Nov 30	58* (see pg 34)	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1040	Nov 1 - Nov 30	60-1* (see pg 34)	50	<i>See note 7, Page 34</i>
1041	Nov 1 - Nov 30	62	30	
1042	Nov 1 - Nov 30	64* (see pg 34)	50	
1043	Nov 1 - Nov 30	66	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1044	Nov 1 - Nov 30	69	10	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>

**CONTROLLED  
DEER**

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

**2005 CONTROLLED HUNTS  
ANTLERLESS DEER**

**CONTROLLED DEER**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1045	Aug 30 - Dec 1 <i>(See note 2, Page 34)</i>	8X	300	White-tailed deer ONLY
1046	Aug 30 - Dec 14 <i>(See note 2, Page 34)</i>	8AX	300	White-tailed deer ONLY
1047	Aug 30 - Dec 9 <i>(See note 2, Page 34)</i>	10AX	400	White-tailed deer ONLY
1048	Aug 30 - Nov 20 <i>(See note 2, Page 34)</i>	11AX* (see pg 34)	450	
1049	Aug 30 - Dec 20 <i>(See note 2, Page 34)</i>	15X* (see pg 34)	200	White-tailed deer ONLY
1050	Oct 10 - Oct 31	22	350	
1051	Aug 15 - Sep 30 Oct 5 - Nov 3	23X	200	Short-range weapons ONLY Aug 15 - Sep 30 White-tailed deer ONLY
1052	Oct 10 - Oct 31	31	350	
1053	Oct 10 - Oct 31	32	350	Motorized Vehicle Restriction, See note 4, Page 34
1054	Oct 10 - Oct 31	32A	150	Motorized Vehicle Restriction, See note 4, Page 34
1055	Oct 10 - Oct 31	39-2	1200	
1056	Oct 10 - Oct 31	43	700	
1057	Oct 15 - Nov 9	44-1	700	
1058	Nov 1 - Nov 9	45	450	Motorized Vehicle Restriction, See note 4, Page 34
1059	Oct 10 - Oct 31	48	50	Motorized Vehicle Restriction, See note 4, Page 34
1060	Nov 1 - Nov 30	49-2*	450	Motorized Vehicle Restriction, See note 4, Page 34
1061	Nov 1 - Nov 9	52	200	Motorized Vehicle Restriction, See note 4, Page 34
1062	Aug 30 - Dec 19 <i>(See note 2, Page 34)</i>	60X* (see pg 34)	1,000	White-tailed deer ONLY Motorized Vehicle Restriction Unit 66 & 69, See note 4, Page 34
1063	Nov 1 - Nov 30	60-1* (see pg 34)	300	See note 7, Page 34

**2005 CONTROLLED HUNTS  
EITHER SEX DEER**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1064	Oct 5 - Nov 17 Nov 18 - Nov 30	60-2* (see pg 34)	800	Antlerless ONLY - Nov 18 - Nov 30 See note 7, Page 34
1065	Oct 5 - Nov 8	62	100	
1066	Oct 5 - Nov 8	64* (see pg 34)	100	

**2005 CONTROLLED HUNTS  
ARCHERY DEER - Archery Permit Required**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1067	Nov 16 - Dec 16	39-3	125	Either sex, See note 5, Page 34 Roads on Boise River WMA closed to Motorized Travel
1068	Aug 15 - Sep 30	40-2* (see pg 34)	25	Either sex
1069	Aug 30 - Dec 19	68A	Unlimited	Antlered ONLY
	Dec 1 - Dec 19	72	Unlimited	Motorized Vehicle Restriction, See note 4, Page 34, Antlered ONLY

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

**2005 CONTROLLED HUNTS**  
**MUZZLELOADER DEER - Muzzleloader Permit Required**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1070	Nov 20 - Nov 30	21-1*	40	<i>Traditional Muzzleloader ONLY, Antlered ONLY</i>
1071	Nov 10 - Nov 30	33* (see pg 34)	149	<i>Antlered ONLY</i>
1072	Nov 25 - Dec 9	37* (see pg 34)	73	<i>Antlered ONLY Motorized Vehicle Restriction, See note 4, Page 34</i>
1073	Sep 28 - Oct 31	45	30	<i>Traditional Muzzleloader ONLY, Antlered ONLY Motorized Vehicle Restriction, See note 4, Page 34</i>
1074	Nov 1 - Nov 14	46*	200	<i>Traditional Muzzleloader ONLY, Either sex Motorized Vehicle Restriction Unit 47, See note 4, Page 34</i>
1075	Nov 25 - Dec 9	51* (see pg 34)	100	<i>Either sex Motorized Vehicle Restriction, See note 4, Page 34</i>
1076	Nov 11 - Dec 9	61	Unlimited	<i>Either sex</i>

**2005 CONTROLLED HUNTS**  
**YOUTH DEER**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1077	Sep 1 - Dec 31	21-2*	100	<i>Landowner Permission Required, See note 6, Page 34, Short-range weapon ONLY, Antlerless ONLY, Private land ONLY.</i>
1078	Oct 25 - Nov 9	44-2* (see pg 34)	400	<i>Motorized Vehicle Restriction Units 45 &amp; 52, See notes 3 &amp; 4, Page 34, antlerless ONLY</i>
1079	Oct 5 - Oct 31	46* (see pg 34)	400	<i>Motorized Vehicle Restriction Unit 47 See notes 3 &amp; 4, Page 34, either sex</i>

**2005 CONTROLLED HUNTS**  
**OUTFITTER ALLOCATION DEER - Antlered Deer Only**

Hunt No.	Season Dates	Controlled Hunt Areas	Permits	Notes
1080	Aug 30 - Dec 1	1	2	
1081	Oct 10 - Nov 3	11	1	<i>Antlered Mule deer ONLY</i>
1082	Oct 10 - Nov 3	11A	2	<i>Antlered Mule deer ONLY</i>
1083	Oct 10 - Nov 3	13	37	<i>Antlered Mule deer ONLY</i>
1084	Oct 10 - Nov 3	14	22	<i>Antlered Mule deer ONLY</i>
1085	Oct 10 - Nov 3	18	9	<i>Antlered Mule deer ONLY</i>
1086	Nov 10 - Nov 24	33	1	<i>Muzzleloader ONLY</i>
1087	Nov 25 - Dec 9	37* (see pg 34)	2	<i>Muzzleloader ONLY, Antlered ONLY, Motorized Vehicle Restriction , See note 4, Page 34</i>
1088	Aug 15 - Sep 24	39-1	1	
1089	Nov 10 - Nov 24	40-1	5	
1090	Nov 10 - Nov 24	42	1	
1091	Nov 1 - Nov 30	50-1	1	<i>Motorized Vehicle Restriction, See note 4, Page 34</i>
1092	Oct 5 - Oct 31	55	1	
1093	Oct 5 - Oct 31	57	1	

Prior to submitting an application for an outfitter allocated controlled hunt, you must have a written agreement with an outfitter licensed in the hunt area. Successful applicants of an outfitter allocated controlled hunt must hunt with an outfitter licensed for the hunt area. The outfitter must purchase your permit and tag by Aug. 20. Successful applicants authorize the Department to provide names and addresses to the outfitter(s) 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](http://www.state.id.us/oglb) or by calling (208) 327-7380.

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

CONTROLLED DEER

**Notes:**

- 1 — This hunt has very limited access due to few roads, and private property.
- 2 — All holders of this permit/tag may only hunt during dates that the individual unit is open to general deer tag holders. Hunters are also limited to the weapon type that the general tag holder must use for the given dates.
- 3 — Youth Hunt: ONLY hunters 12 - 17 years of age with a valid license may apply for this hunt.
- 4 — Motorized vehicle use as an aid to hunting for wildlife is grossrestricted to established roadways open to motorized vehicle traffic capable of travel by full-sized automobiles. A full-sized automobile shall be defined as any motorized vehicle with a vehicle weight in excess of 1500 pounds. See page 13.

- 5 — Mandatory class required - Anyone drawing a deer controlled archery-only hunt permit for this hunt must satisfactorily complete a mandatory hunter education course. The course will be administered by the southwest region and will include the hunt boundaries and legal restrictions, and will emphasize proper hunter ethics. Bowhunter education required.
- 6 — Landowner Permission Hunts. Written permission from a landowner 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 Salmon and headquarters IDFG offices starting Jul 15. Do not apply for this hunt during the controlled hunt application period.
- 7 — Short-range weapons ONLY on CJ Strike, Mud Lake, and Chester Wetlands Wildlife Management Areas.

**DEER CONTROLLED HUNT AREA DESCRIPTIONS**

**Hunt Area 1** — All of Unit 1.

**Hunt Area 8X** — All of Unit 8.

**Hunt Area 8AX** — That portion of Unit 8A within one mile of private land. (For the purpose of this hunt, 'private land' does not include corporate timberlands).

**Hunt Area 10AX** — That portion of 10A within one mile of private land. (For the purpose of this hunt, 'private land' does not include corporate timberlands)

**Hunt Area 11** — All of Unit 11.

**Hunt Area 11A** — All of Unit 11A.

**Hunt Areas 11AX** — All of Unit 11A and that portion of Unit 14 north and west of U.S. Highway 95 and Whitebird Creek.

**Hunt Area 13** — All of Unit 13.

**Hunt Area 14** — All of Unit 14.

**Hunt Area 15X** — That portion of Units 15 and 16 outside of and up to one mile inside 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. Please refer to a US Forest Service travel plan map for the location of this boundary.

**Hunt Area 18** — All of Unit 18.

**Hunt Area 19A** — All of Unit 19A.

**Hunt Area 20A** — All of Unit 20A.

**Hunt Area 21-1** — All of Units 21 and 21A.

**Hunt Area 21-2** — All of Units 21, 21A, 28, 29, 30, 30A, 36A, 36B, 37, and 37A.

**Hunt Area 22** — All of Unit 22.

**Hunt Area 23** — All of Unit 23.

**Hunt Area 23X** — That area of Unit 23 outside the National Forest System Boundary and 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 25** — All of Unit 25.

**Hunt Area 26** — All of Unit 26.

**Hunt Area 27** — All of Unit 27.

**Hunt Area 31** — All of Unit 31.

**Hunt Area 32** — All of Unit 32.

**Hunt Area 32A** — All of Unit 32A.

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

**Hunt Area 37** — All of Units 37 and 37A.

**Hunt Area 39-1** — All of Unit 39.

**Hunt Area 39-2** — All of Unit 39 EXCEPT that portion of Unit 39 south and east of the Blacks Creek Road and south of the South Fork of the Boise River.

**Hunt Area 39-3** — That portion of Unit 39 within the following boundary: Beginning at a point 400 yards north of State Highway 21 at the Ada County Line, south and west on a line 400 yards north of State Highway 21 to Warm Springs Avenue, and west on a line 400 yards north of Warm Springs Avenue to the Highlands-Table Rock powerline, north and west on the Highlands-Table Rock powerline to State Highway 55, north on Highway 55 to the Ada County Line, and southeast on the Ada County Line to the point of beginning.

**Hunt Area 40-1** — All of Unit 40.

**Hunt Area 40-2** — All of Units 40, 41, and 42.

**Hunt Area 41** — All of Unit 41.

**Hunt Area 42** — All of Unit 42.

**Hunt Area 43** — All of Unit 43.

**Hunt Area 44-1** — All of Unit 44.

**Hunt Area 44-2** — All Units of 44, 45, and that portion of Unit 52 west of State Highway 75.

**Hunt Area 45** — All of Unit 45.

**Hunt Area 46** — All of Units 46, 47, 54, 55, and 57.

**Hunt Area 47-1** — All of Unit 47.

**Hunt Area 47-2** — All of Units 46 and 47.

**Hunt Area 48** — All of Unit 48.

**Hunt Area 49-1** — All of Unit 49.

**Hunt Area 49-2** — All of Units 49 and 50.

**Hunt Area 50-1** — That portion of Unit 50 west of U.S. 93.

**Hunt Area 50-2** — All of Unit 50.

**Hunt Area 51** — All of Unit 51 and that portion of Unit 50 east of U.S. Highway 93.

**Hunt Area 52** — All of Unit 52.

**Hunt Area 52A** — All of Unit 52A. (Caution: See Craters of the Moon closure, page 9)

**Hunt Area 54** — All of Unit 54.

**Hunt Area 55** — All of Unit 55. Most of the City of Rocks National Reserve is open to hunting. Information about hunting within the Reserve is available to permittees at IDFG offices and at the National Park Service office in Almo.

**Hunt Area 56** — All of Unit 56.

**Hunt Area 57** — All of Unit 57.

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

**Hunt Area 60-1** — All of Units 60, 62A and that portion of Unit 60A beyond one mile north and west of the North (Henry) Fork of the Snake River.

**Hunt Area 60-2** — All of Units 60, 61, and 62A.

**Hunt Area 60X** — All of Units 60, 60A, 62, 63, 63A, 64, 65, 66, 67 and 69.

**Hunt Area 61** — All of Unit 61.

**Hunt Area 62** — All of Unit 62.

**Hunt Area 64** — All of Unit 64 and that portion of Unit 67 north and east of State Highway 26.

**Hunt Area 66** — All of Unit 66.

**Hunt Area 68A** — All of Unit 68A.

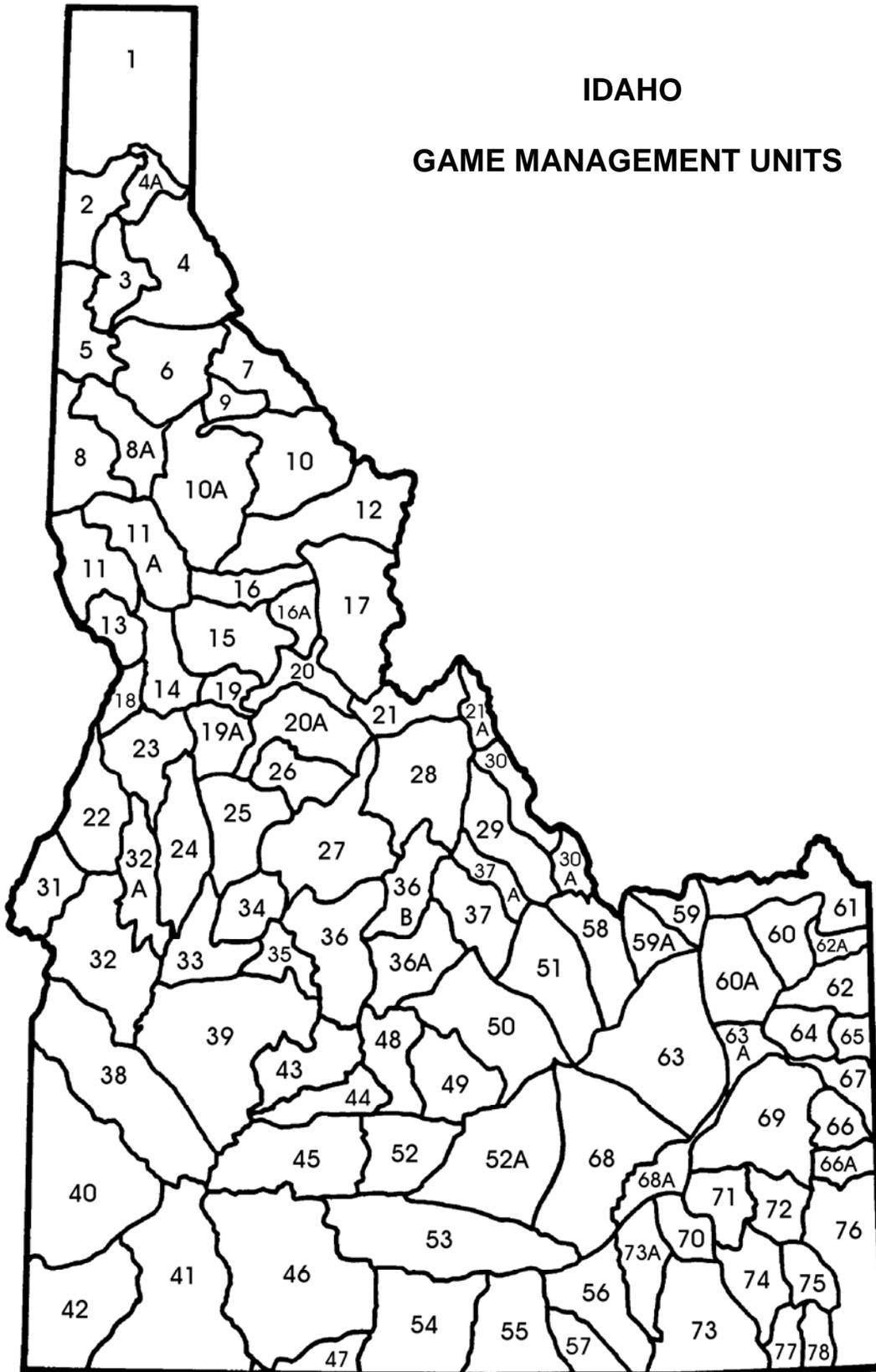
**Hunt Area 69** — All of Unit 69.

**Hunt Area 72** — All of Unit 72.



# IDAHO

## GAME MANAGEMENT UNITS



## 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.

