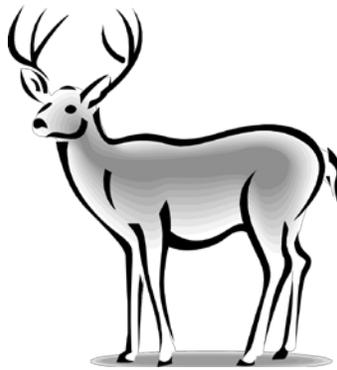


**IDAHO DEPARTMENT OF FISH AND GAME**

**Jerry Mallet, Interim Director**

**Project W-170-R-23**

**Progress Report**



**WHITE-TAILED DEER**

Study I, Jobs 1, 2, and 3

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July 1, 1998 to June 30, 1999

November 1999  
Boise, Idaho



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## PROGRESS REPORT SURVEYS AND INVENTORIES

<b>STATE:</b>	<u>Idaho</u>	<b>JOB TITLE:</b>	<u>White-Tailed Deer Surveys</u>
<b>PROJECT:</b>	<u>W-170-R-23</u>		<u>and 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>3</u>		<u>Habitat Studies</u>
<b>PERIOD COVERED:</b>	<u>July 1, 1998 to June 30, 1999</u>		

### WHITE-TAILED DEER

#### *Overview*

White-tailed deer are found primarily in the 10 northern counties of Idaho. This area corresponds roughly to that portion of the state north of the Salmon River and encompasses the Department's administrative Panhandle and Clearwater regions. A few small, localized populations are found throughout the remainder of the state. This plan establishes criteria and objectives for white-tailed deer populations in north-central and northern Idaho. Management efforts in the remainder of the state will be incidental to mule deer.

Whitetails are primarily browsers. The fall and winter diets consist primarily of shrubs and evergreens. Western red cedar and western yew are often utilized. Preferred shrubs include red-osier dogwood, red-stem ceanothus, serviceberry, maple, and chokecherry. The spring and summer diets consist largely of grasses and forbs, or agricultural crops if available.

Winter conditions in northern Idaho can be severe, especially in Region 1. Snow depths reach 3 feet on low elevation winter ranges, restricting whitetails to closed canopy timber stands where they are forced to concentrate in "deer yards" under mature forest canopies. In the best whitetail habitats, the major limiting factor on population growth appears to be the severity of the winter.

Due to their secretive behavior and ability to use dense cover for concealment, white-tailed deer often live close to human habitation. Consequently, whitetails may suffer a higher mortality rate from poaching, free-ranging dogs, and vehicle collisions than other big game species in Idaho.

White-tailed deer frequently inflict damage on vegetable gardens, orchards, nurseries, and field crops. Depredation control is, therefore, an important aspect of Idaho's white-tailed deer management program.

The effect of harvest mortality is highly variable in white-tailed deer. Generally, the majority of the 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 whitetail populations. Therefore, population response tends to be independent of harvest. Exceptions to

this rule include extremely liberal antlerless opportunity designed to reduce populations and effects of hunter harvest on buck age structure. Hunting seasons designed to offer greatly 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. Throughout much of Idaho, white-tailed deer habitat provides high amounts of security cover, thus the effects of harvest tend to be extremely limited.

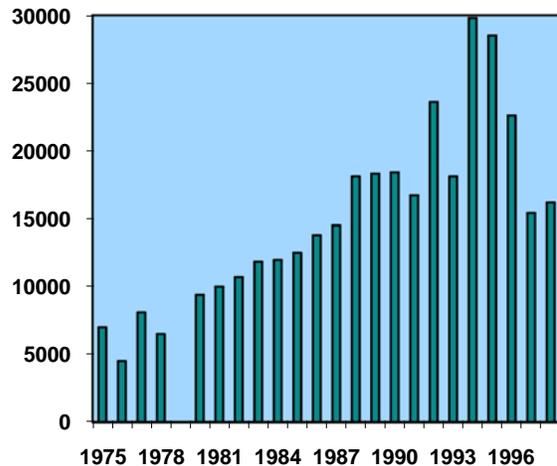
Proper harvest management for white-tailed deer, given their relative independence to harvest effects, is to adequately monitor populations annually and be responsive to population changes. Liberal seasons can be applied during most periods and conservative seasons applied when environmental factors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

Because of their secretive behavior and habitats used, management information on white-tailed deer is difficult to collect. Consequently, no population estimates are provided in this plan. Some limited aerial survey data have been collected periodically, but how that information relates to actual populations size and herd composition cannot be determined at the present time.

Other data collection efforts have included tabulating numbers of harvested animals and collection of antler point and spread data at check stations, jaw collections for age analyses, obtaining reproductive information from road-killed does, determining habitat use and mortality rates, and the telephone harvest survey.

The telephone harvest survey provides management information available on whitetails. However, this information is limited to an estimate of total harvest by unit and corresponding antler point data of bucks harvested. These data will be monitored as indices of population status. Criterion for minimum %4+ and %5+ antler points in the harvest have been established for each of the 7 Analysis Areas (grouping of Game Management Units). Antler point criterion were established as minimums the general public would accept, and are believed above that necessary to maintain healthy, productive populations. Minimum criterion do not insure "trophy" animals.

**Statewide White-Tailed Deer Harvest**



Beginning in 1998, a statewide mandatory report card system was implemented. If compliance is adequate, more precise data on harvest and antler point information will be possible. The development of a technique to estimate population size and composition would allow for considerable refinement of whitetail management in Idaho.

Overall, white-tailed deer populations are healthy in Idaho and are probably near all time highs for the state. Heavy snows during the 1996/97 winter impacted most populations throughout

northern Idaho. Given high quality habitat, populations impacted by the winter should rebound relatively quickly.

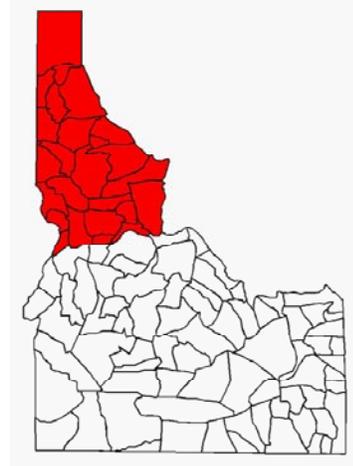
A differential change in hunting pressure has occurred between south and north Idaho since the early 1990s. While southern Idaho mule deer hunter numbers have remained relatively stable, hunter numbers in north-central and north Idaho have increased. It is unknown whether restrictive mule deer seasons combined with a mule deer population decline in parts of southern Idaho following the 1992/93 winter has shifted some pressure northward, or a change in human demographics has led to this differential change.

Concurrent with the increasing hunter numbers in northern Idaho has been a general decline in both %4+ and %5+ points in the harvest since 1993. Antler ratio data is not a direct reflection of harvest exploitation because it can be influenced by a broad array of factors including: population changes, changing age structures, differential cohort demographics, hunting season frameworks, and/or harvest exploitation. However, given the increasing hunter numbers and declining antler point count data; the Department will continue to monitor these parameters and recommend appropriate action to insure that 3 year average antler point criteria do not fall below minimum.

## White-Tailed Deer Status & Minimum Criterion Statewide

### Buck Status & Minimum Criterion

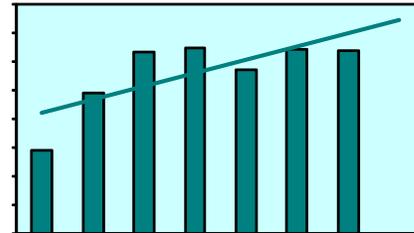
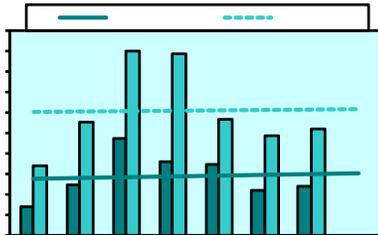
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	53 <span style="color: green;">▲</span>	30 <span style="color: green;">▲</span>
% 5+ Points In The Harvest	1996-98	20 <span style="color: green;">▲</span>	7 <span style="color: green;">▲</span>



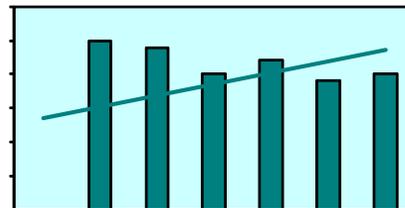
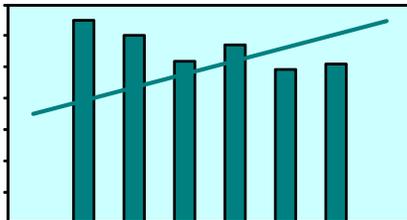
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
<b>Antlerless Harvest</b>	2741	4843	9508	7204	6980	4352	4710
<b>Antlered Harvest</b>	6828	11060	18059	17725	11401	9667	10381
<b>% 4+ Points</b>	ND	65	60	52	57	49	51
<b>% 5+ Points</b>	ND	25	24	20	22	19	20
<b>Hunter Numbers</b>	28988	48764	63333	64662	57180	64303	63816

Note: Harvest data based on telephone results of general season and controlled hunts.  
 ND = no harvest data available.



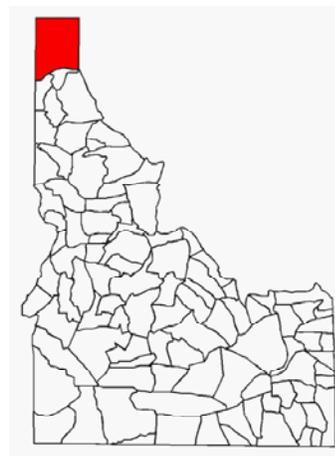
\* Note: Hunter numbers include all deer hunters.



## White-Tailed Deer Analysis Area 1 (Unit 1)

### Buck Status & Minimum Criterion

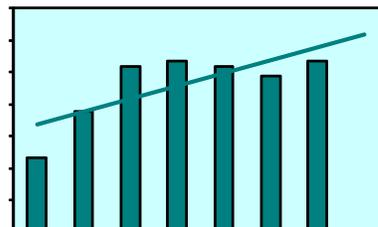
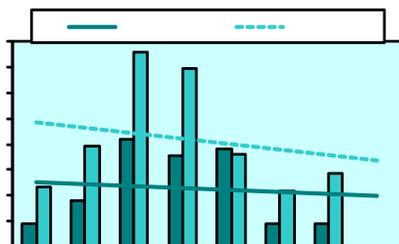
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	53	30
% 5+ Points In The Harvest	1996-98	23	7



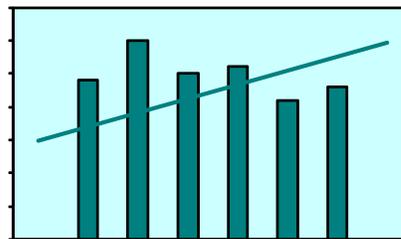
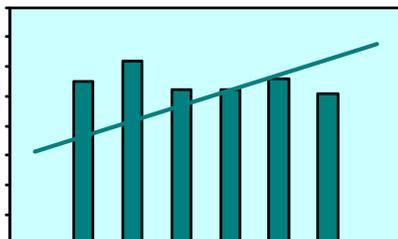
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	451	914	2109	1778	1913	461	459
Antlered Harvest	1159	1977	3805	3489	1801	1088	1431
% 4+ Points	ND	55	62	52	52	56	51
% 5+ Points	ND	24	30	25	26	21	23
Hunter Numbers	4659	7576	10348	10741	10324	9733	10670

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers include all deer hunters.



## **ANALYSIS AREA 1**

### ***Management Objectives***

Buck survival will be managed to maintain a minimum of 30% of bucks with four or more antler points per side, and a minimum 7% with five or more antler points per side.

### ***Historical Perspective***

Prior to the 1900s, deer were apparently relatively scarce, existing along the rivers and edges of mature conifer stands, and within younger stands created by fire, disease, and insects. As mining, logging, and the railroads entered the picture around the turn of the century, deer habitat began to change slowly. The period from 1910 to 1931 included five major fires, each creating hundreds of thousands of acres of younger forests beneficial to white-tailed deer. The newly created habitat, and a major predator control program allowed deer numbers to continue this growth, even through five major die-offs: 1927, 1932, 1946, 1948, and 1949.

Concern about "over browsed winter ranges" and "too many deer" prompted liberal hunting seasons in an effort to reduce deer numbers in the early 1950s. Long seasons were the rule from 1954 through 1974. By the early 1970s, deer numbers had come down substantially from the peak numbers in the 50s and 60s. Hunting seasons were shortened, but no major habitat creating fires had occurred for over 40 years.

### ***Habitat Issues***

This analysis area can be broadly described heavily timbered, with very little agricultural land. Habitat security is high, with heavy vegetative cover, and access restrictions through mid-November to protect grizzly bears. Timber harvest in portions of this Analysis Area have improved whitetail summer range. Research in this area has demonstrated the closed canopies of low-elevation, mature timber is important to deer during severe winters. Loss of this habitat component to logging and development is probably the major habitat issue in the Analysis Area. Grazing is negligible.

### ***Biological Issues***

The management criteria are easily met in this Analysis Area. Research in the Priest River drainage from 1986 through 1995 indicated hunting-related mortality was 7% for does and 18% for bucks. Natural mortality was the major factor influencing total mortality rates of both sexes. In terms of effect, the 1996/97 winter was probably one of the three or four most severe during the last century. Research adjacent to this Analysis Area in Montana indicated 99% of fawns died, as did 26% of adult females.

### ***Interspecific Issues***

Other wild ungulates within the Analysis Area include mule deer, elk, moose, mountain goats, and woodland caribou. None are believed to be limiting white-tailed deer numbers, and white-tailed deer are not believed to be in competition with any of these species for forage or space. As the most abundant ungulate in the Analysis Area, white-tailed deer do have an indirect influence on other species in the ecosystem. In those years when white-tailed deer numbers change rapidly in response to environmental factors, the resultant effect on predation will be reflected within the population dynamics of alternate prey species. For example, it is hypothesized that whitetail numbers are maintaining enough mountain lions that caribou numbers may be affected.

### ***Predation Issues***

The Priest River research indicated natural causes, primarily predation, were the primary cause of mortality of adult deer. Twenty-three percent of adult males, and ten percent of adult females died annually to natural mortality, primarily predation. No information is available on the effect on fawn deer, or to the population as a whole.

White-tailed deer have the highest intrinsic rate of increase among Idaho's ungulates. Although predation may be a major influence in their population dynamics, predation has not been identified as limiting hunting opportunity for whitetails in northern Idaho. Between 1995 and 1998, mountain lion numbers are believed to have increased substantially, while white-tailed deer numbers dropped substantially due to the severe 1996/97 winter. It is possible that the influence of predation is greater now than when evaluated during the Priest River study.

### ***Winter Feeding Issues***

The Department has undertaken emergency winter feeding about once every ten to fifteen years in this Analysis Area. The most recent feeding occurred during the 1996/97 winter, when about 3000 whitetails were fed at department-sanctioned sites, primarily in the Bonner's Ferry and Priest River locales. Extrapolating harvest and telemetry data to calculate a crude population estimate of 29,000 deer, it appears approximately 10% of the population in the Analysis Area was fed.

### ***Information Requirements***

Only harvest data are currently available for white-tailed deer management in Analysis Area 1. Success rates and the percentage of females in the harvest are used to index population trend, but the long seasons and variable weather influence makes interpretation difficult. Antler point summaries from harvested bucks index adult buck survival.

Given the relatively minor effect of harvest measured on Priest River whitetails, detailed population information is not needed for setting hunting regulations. Better indices of population size (trend) should be developed to better understand changes in harvest information. Development of techniques to monitor recruitment are desirable as well.

## White-Tailed Deer Analysis Area 2 (Units 2, 3, 4A)

### Buck Status & Minimum Criterion

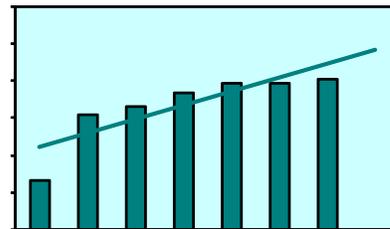
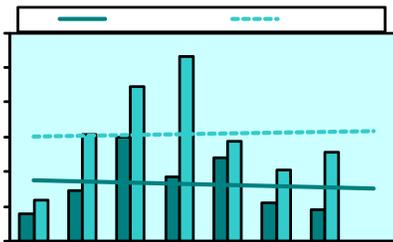
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	49	30
% 5+ Points In The Harvest	1996-98	21	7



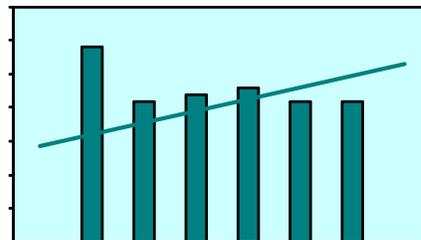
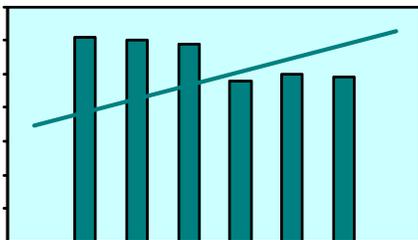
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	390	731	1497	933	1207	562	446
Antlered Harvest	588	1547	2223	2662	1448	1033	1280
% 4+ Points	ND	61	60	59	48	50	49
% 5+ Points	ND	29	21	22	23	21	21
Hunter Numbers	2689	6180	6599	7319	7901	7890	8111

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers include all deer hunters.



## **ANALYSIS AREA 2**

### ***Management Objectives***

Buck survival will be managed to maintain a minimum of 30% of bucks with four or more antler points per side, and a minimum 7% with five or more antler points per side.

### ***Historical Perspective***

Prior to the 1900s, deer were apparently relatively scarce, existing along the rivers and edges of mature conifer stands, and within younger stands created by fire, disease, and insects. As mining, logging, and the railroads entered the picture around the turn of the century, deer habitat began to change slowly.

Concern about "over browsed winter ranges" and "too many deer" prompted liberal hunting seasons in an effort to reduce deer numbers in the early 1950s. Long seasons were the rule from 1954 through 1974.

By the early 1970s, deer numbers had come down substantially from the peak numbers in the 50s and 60s. Hunting seasons were shortened, but no major habitat creating fires had occurred for over 40 years. Since shorter seasons began in the mid 1970s, the number of whitetails killed by hunters in the Panhandle rose from 3,000 per year to 10,000 per year.

### ***Habitat Issues***

This analysis area can be broadly described heavily timbered, with very little agricultural land. Habitat security is good, with heavy vegetative cover. This Analysis Area includes substantial development associated with the Coeur d'Alene area. The primary impact with the one to ten acre parcels common in the areas surrounding urban development is the loss of range critical during severe snow accumulations. Timber harvest in portions of this Analysis Area has improved whitetail summer range substantially. Grazing is negligible.

### ***Biological Issues***

The management criteria are easily met in this Analysis Area. As indexed by antler point information from the harvest, buck survival is very good in this Analysis Area despite the human population of the area. The 1996/97 winter was probably one of the three or four most severe during the last century in this Analysis Area.

### ***Interspecific Issues***

Other wild ungulates within the Analysis Area include mule deer, elk, and moose. None are believed to be limiting white-tailed deer numbers, and white-tailed deer are not believed to be in competition with any of these species for forage or space. As the most abundant ungulate in the Analysis Area, white-tailed deer do have an indirect influence on other species in the ecosystem. In those years when white-tailed deer numbers change rapidly in response to environmental

factors, the resultant effect on predation will be reflected within the population dynamics of alternate prey species.

### ***Predation Issues***

White-tailed deer have the highest intrinsic rate of increase among Idaho's ungulates. Although predation may be a major influence in their population dynamics, predation has not been identified as limiting hunting opportunity for whitetails in northern Idaho. Between 1995 and 1998, mountain lion numbers are believed to have increased substantially, while white-tailed deer numbers dropped substantially due to the severe 1996/97 winter.

### ***Winter Feeding Issues***

The Department has undertaken emergency winter feeding about once every ten to fifteen years in this Analysis Area. The most recent feeding occurred during the 1996/97 winter, when about 200 whitetails were fed at department-sanctioned sites, primarily in the Spirit Lake area. Many private individuals feed small herds of 10 to 20 deer.

### ***Information Requirements***

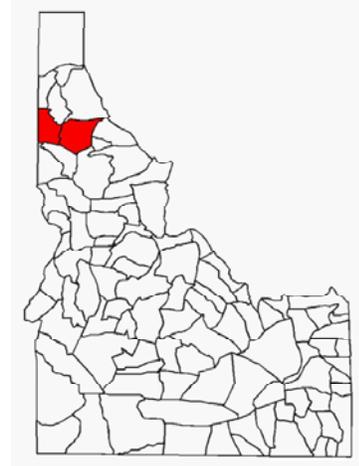
Only harvest data are currently available for white-tailed deer management in Analysis Area 2. Success rates and the percentage of females in the harvest are used to index population trend, but the long seasons and variable weather influence makes interpretation difficult. Antler point summaries from harvested bucks index adult buck survival.

Given the relatively minor effect of harvest measured in adjacent Analysis Area 1 whitetails, and similar buck survival (as indexed by antler point data), detailed population information is not needed for setting hunting regulations. Better indices of population size (trend) should be developed to better understand changes in harvest information. Development of techniques to monitor recruitment are desirable as well.

## White-Tailed Deer Analysis Area 3 (Units 5, 6)

### Buck Status & Minimum Criterion

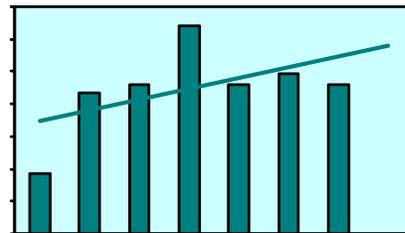
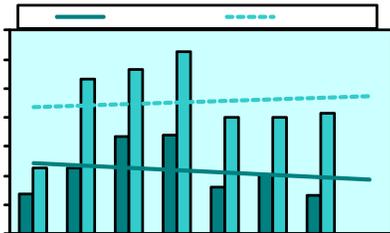
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	57	30
% 5+ Points In The Harvest	1996-98	29	7



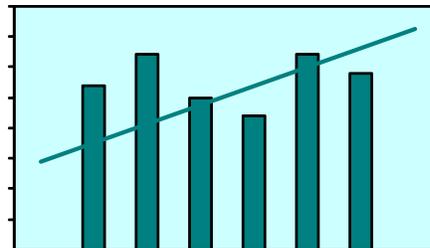
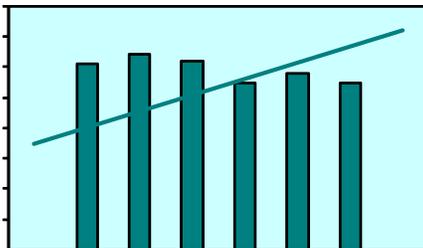
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	275	451	670	677	316	406	262
Antlered Harvest	448	1064	1126	1255	799	801	827
% 4+ Points	ND	61	64	62	55	58	55
% 5+ Points	ND	27	32	25	22	32	29
Hunter Numbers	1875	4320	4602	6390	4607	4931	4580

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers include all deer hunters.



## **ANALYSIS AREA 3**

### ***Management Objectives***

Buck survival will be managed to maintain a minimum of 30% of bucks with four or more antler points per side, and a minimum 7% with five or more antler points per side.

### ***Historical Perspective***

Prior to the 1900s, deer were apparently relatively scarce, existing along the rivers and edges of mature conifer stands, and within younger stands created by fire, disease, and insects. As mining, logging, and the railroads entered the picture around the turn of the century, deer habitat began to change slowly.

Concern about "over browsed winter ranges" and "too many deer" prompted liberal hunting seasons in an effort to reduce deer numbers in the early 1950s. Long seasons were the rule from 1954 through 1974.

By the early 1970s, deer numbers had come down substantially from the peak numbers in the 50s and 60s. Hunting seasons were shortened, but no major habitat creating fires had occurred for over 40 years. Since shorter seasons began in the mid 1970s, the number of whitetails killed by hunters in the Panhandle rose from 3,000 per year to 10,000 per year.

### ***Habitat Issues***

This analysis area can be broadly described heavily timbered to the east, but with abundant agricultural land to the west. Habitat security is variable. This Analysis Area includes most of the Coeur d'Alene Indian Reservation. Timber harvest in portions of this Analysis Area has improved whitetail summer range substantially. Loss of low elevation, closed canopy stands important during deep-snow winters is the primary habitat issue in this Analysis Area. Grazing is negligible.

### ***Biological Issues***

The management criteria are easily met in this Analysis Area. As indexed by antler point information from the harvest, buck survival is very good in this Analysis Area. This Analysis Area did not experience high winter mortality during the 1996/97 winter as did the eastern portion of the Area.

### ***Interspecific Issues***

Other wild ungulates within the Analysis Area include mule deer, elk, and moose. None are believed to be limiting white-tailed deer numbers, and white-tailed deer are not believed to be in competition with any of these species for forage or space. As the most abundant ungulate in the Analysis Area, white-tailed deer do have an indirect influence on other species in the ecosystem. In those years when white-tailed deer numbers change rapidly in response to environmental

factors, the resultant effect on predation will be reflected within the population dynamics of alternate prey species.

### ***Predation Issues***

White-tailed deer have the highest intrinsic rate of increase among Idaho's ungulates. Although predation may be a major influence in their population dynamics, predation has not been identified as limiting hunting opportunity for whitetails in northern Idaho. Between 1995 and 1998, mountain lion numbers are believed to have increased substantially, while white-tailed deer numbers dropped substantially due to the severe 1996/97 winter.

### ***Winter Feeding Issues***

The Department has not fed deer in this Analysis Area in recent years. Many private individuals feed small herds of 10 to 20 deer.

### ***Information Requirements***

Only harvest data are currently available for white-tailed deer management in Analysis Area 3. Success rates and the percentage of females in the harvest are used to index population trend, but the long seasons and variable weather influence makes interpretation difficult. Antler point summaries from harvested bucks index adult buck survival.

Given the relatively minor effect of harvest measured in adjacent Analysis Area 1 whitetails, and similar buck survival (as indexed by antler point data), detailed population information is not needed for setting hunting regulations. Better indices of population size (trend) should be developed to better understand changes in harvest information. Development of techniques to monitor recruitment are desirable as well.

## White-Tailed Deer Analysis Area 4 (Units 4, 7, 9)

### Buck Status & Minimum Criterion

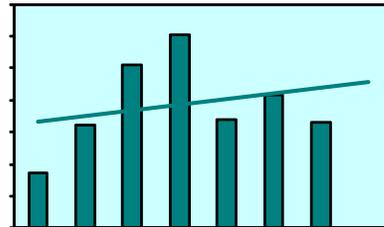
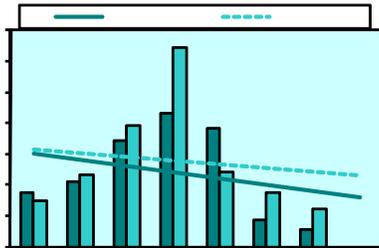
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	47	30
% 5+ Points In The Harvest	1996-98	20	7



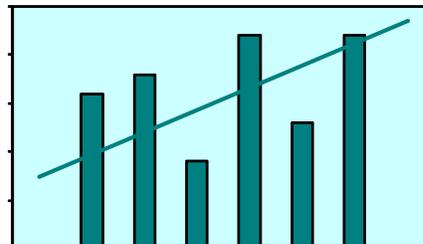
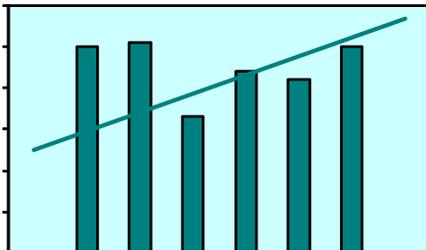
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	353	419	684	864	762	175	111
Antlered Harvest	298	463	783	1288	483	351	243
% 4+ Points	ND	50	51	33	44	42	50
% 5+ Points	ND	16	18	9	22	13	22
Hunter Numbers	3413	6405	10233	12064	6810	8293	6641

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers include all deer hunters.



## **ANALYSIS AREA 4**

### ***Management Objectives***

Buck survival will be managed to maintain a minimum of 30% of bucks with four or more antler points per side, and a minimum 7% with five or more antler points per side.

### ***Historical Perspective***

Prior to the 1900s, deer were apparently relatively scarce, existing along the rivers and edges of mature conifer stands, and within younger stands created by fire, disease, and insects. As mining, logging, and the railroads entered the picture around the turn of the century, deer habitat began to change slowly. The period from 1910 to 1931 included five major fires, each creating hundreds of thousands of acres of younger forests beneficial to white-tailed deer. The newly created habitat, and a major predator control program allowed deer numbers to continue this growth, even through five major die-offs: 1927, 1932, 1946, 1948, and 1949.

Concern about "over browsed winter ranges" and "too many deer" prompted liberal hunting seasons in an effort to reduce deer numbers in the early 1950s. Long seasons were the rule from 1954 through 1974. By the early 1970s, deer numbers had come down substantially from the peak numbers in the 50s and 60s. Hunting seasons were shortened, but no major habitat creating fires had occurred for over 40 years.

### ***Habitat Issues***

This analysis area can be broadly described heavily timbered to the east, but with abundant agricultural land to the west. Habitat security is variable. Timber harvest in portions of this Analysis Area has improved whitetail summer range substantially. Loss of low elevation, closed canopy stands important during deep-snow winters is the primary habitat issue in this Analysis Area. Grazing is negligible.

### ***Biological Issues***

The management criteria are easily met in this Analysis Area. As indexed by antler point information from the harvest, buck survival is very good in this Analysis Area. Deer densities appear lower in this Area than adjacent Areas, particularly at the southern end.

### ***Interspecific Issues***

Other wild ungulates within the Analysis Area include mule deer, elk, moose, and mountain goats. None are believed to be limiting white-tailed deer numbers, and white-tailed deer are not believed to be in competition with any of these species for forage or space. As the most abundant ungulate in the Analysis Area, white-tailed deer do have an indirect influence on other species in the ecosystem. In those years when white-tailed deer numbers change rapidly in response to environmental factors, the resultant effect on predation will be reflected within the population dynamics of alternate prey species.

### ***Predation Issues***

White-tailed deer have the highest intrinsic rate of increase among Idaho's ungulates. Although predation may be a major influence in their population dynamics, predation has not been identified as limiting hunting opportunity for whitetails in northern Idaho. Between 1995 and 1998, mountain lion numbers are believed to have increased substantially, while white-tailed deer numbers dropped substantially due to the severe 1996/97 winter.

### ***Winter Feeding Issues***

The Department has fed deer about once every 20 years in this Analysis Area. Many private individuals feed small herds of 10 to 20 deer.

### ***Information Requirements***

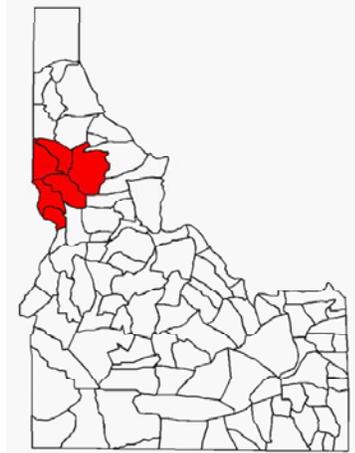
Only harvest data are currently available for white-tailed deer management in Analysis Area 4. Success rates and the percentage of females in the harvest are used to index population trend, but the long seasons and variable weather influence makes interpretation difficult. Antler point summaries from harvested bucks index adult buck survival.

Given the relatively minor effect of harvest measured in adjacent Analysis Area 1 whitetails, and similar buck survival (as indexed by antler point data), detailed population information is not needed for setting hunting regulations. Better indices of population size (trend) should be developed to better understand changes in harvest information. Development of techniques to monitor recruitment are desirable as well.

## White-Tailed Deer Analysis Area 5 (Units 8, 8A, 10A, 11, 11A, 13)

### Buck Status & Minimum Criterion

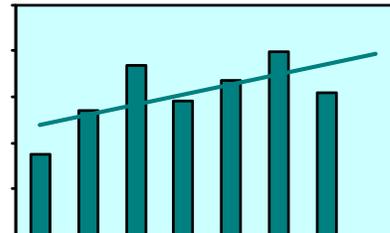
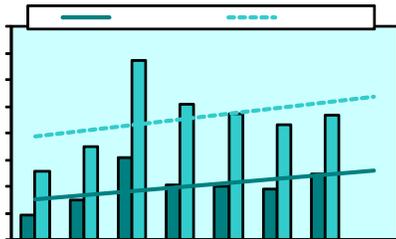
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	56	50
% 5+ Points In The Harvest	1996-98	20	17



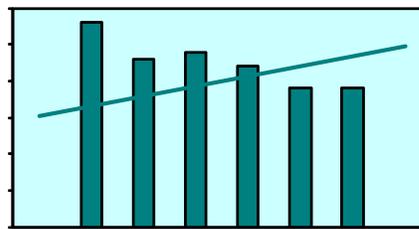
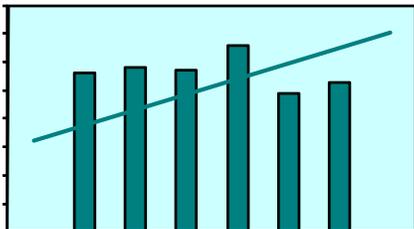
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	945	1517	3108	2054	2006	1907	2481
Antlered Harvest	2558	3479	6757	5097	4724	4303	4683
% 4+ Points	ND	56	58	57	66	49	53
% 5+ Points	ND	28	23	24	22	19	19
Hunter Numbers	8747	13551	18375	14584	16737	19870	15379

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers prior to 1998 include all deer hunters.



## **ANALYSIS AREA 5**

### ***Management Objectives***

Given the current inability to efficiently census population parameters of white-tailed deer, management objectives will be limited to not falling below 50% 4+ points and 17% 5+ points in the harvest. Although, the population size is unknown, efforts will be made to maintain current status.

### ***Historical Perspective***

White-tailed deer populations in this Analysis Area were historically low. Accounts from Lewis and Clark during the 1800s suggested very few animals were found throughout the Clearwater River country. Populations probably did not change much until the early 1900s when large fires and settlement by humans, including grazing of domestic livestock and clearing of land for agricultural purposes, changed the landscape. Logging also converted dense coniferous forests into a mosaic of vegetation succession types. Populations probably peaked around the 1940 - 1950s, followed by a decline. Currently, populations are high.

Historically, white-tailed deer and mule deer were managed as a "single species": a single general season harvest framework was established for both species. In 1973, the Department began to offer species-specific seasons in the Clearwater Region.

These units have either-sex hunting seasons in October. During the mid-eighties most units extended the antlered white-tailed deer hunting season into mid-November. In 1990 most November white-tailed deer seasons became either sex. In 1998, the Clearwater Deer Tag was established.

### ***Habitat Issues***

This Analysis Area includes the highly productive Palouse and Camas Prairies, the timbered mountainous terrain of the Lower North Fork Clearwater River, and the drier ponderosa pine uplands and deep canyons along the Snake and Salmon Rivers. In Units 8 and 8A, dryland agriculture began in the 1880s and currently non-forested land is tilled and only small patches of perennial vegetation remain. 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 the North Fork Clearwater River in Unit 10A and permanently removed thousands of acres of prime low elevation big game winter range. Historically, the canyon lands in Units 11, 11A, and 13 were homesteaded by sheep and cattle ranchers, while prairie land was settled by farmers. Around the turn of the century, northern Unit 11 and the prairie land in Unit 11A were under intensive use for dryland 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. In addition, past improper grazing practices degraded many meadow areas and canyons allowing invasion of noxious weed species in drier areas.

This Analysis Area contains large tracts of privately owned land. Units 8, 11, and 11A are mostly private land except for the Craig Mountain Wildlife Management Area along the Snake and Salmon Rivers. Unit 13 has been mostly under private ownership since settlement, and is managed for agriculture and livestock. Units 8A and 10A contain a mixed ownership of private acreage, private timber companies, and public land owned by either IDL or USFS.

Farmland in Units 8 and 8A have provided high quality forage for deer. Depredations have occurred mostly along timbered edges and canyon lands. The flat low elevation areas, 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. Cash crops which receive damage from white-tailed deer include wheat, barley, oats, peas, lentils, rapeseed, organic vegetables, bluegrass, and hay. Landowners establishing tree plantations, tree farms, and orchards also experience damage by white-tailed deer.

Units 8A and 10A have both been heavily logged with large tracts of land in seedtree cuts or clearcuts. This early successional forest intermixed with meadows and thousands of acres of brushfields has created excellent white-tailed deer summer and winter range. The habitat in this Analysis Area can support high white-tailed deer populations. Habitat productivity varies widely throughout 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. Many grassland cover types have been disturbed by various weeds and nonnative grasses including cheatgrass and yellow star thistle. Open road densities are high within the Analysis Area except along the Snake River and Salmon River below White Bird. Construction of new homesites have decreased available white-tailed deer winter ranges and limited hunter access.

### ***Biological Issues***

White-tailed deer numbers have increased dramatically in this Analysis Area during the past several decades. The increase was not as dramatic during the mid-1990s, although in some areas such as Unit 11 the herd is still expanding. As deer herds have expanded and white-tailed deer hunting in Idaho has become more popular, hunter numbers have increased 24% in this Analysis Area from 1991 to 1996. Similarly, harvest has increased 37% during the same time period. Due to increased hunter densities in Units 8A, 10A, and 11A there are concerns about hunter interactions, landowner trespass and mature buck survival. Percent of bucks 4-point or better averaged 59% from 1993 to 1996.

### ***Interspecific Issues***

Increasing white-tailed deer populations within this Analysis Area may have had a negative impact on mule deer populations. Lion populations tend to fluctuate in response to changes in white-tailed deer populations due to deer being a major food source for lions.

### ***Predation Issues***

Lion numbers have increased in this Analysis Area during the past decade, especially in Unit 10A, probably due to the dramatic increase in white-tailed deer populations. Black bear numbers have remained static throughout most of this area for the past decade. Increases in road densities during the past several decades due to logging have contributed to increased predator hunting opportunities. Wolves have recently begun to establish themselves in Unit 10A due to reintroduction efforts by the USFWS.

### ***Winter Feeding Issues***

Emergency winter feeding of white-tailed deer has not occurred in the recent past.

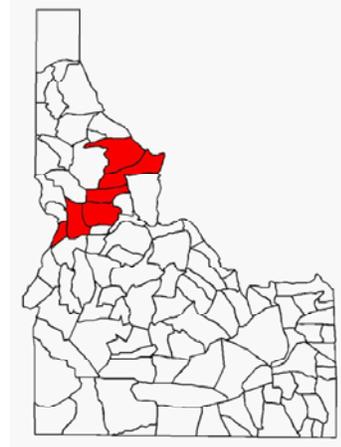
### ***Information Requirements***

Population statistics are needed for white-tailed deer. An improved telephone harvest survey and/or the mandatory harvest report should help improve harvest data. Better harvest information is needed concerning mature buck status. There is currently no aerial survey technique perfected for white-tailed deer in North Idaho. Census methodologies are needed to assess population parameters such as fawn:doe:buck ratios, total numbers and mature buck status.

## White-Tailed Deer Analysis Area 6 (Units 10, 12, 14, 15, 16, 18)

### Buck Status & Minimum Criterion

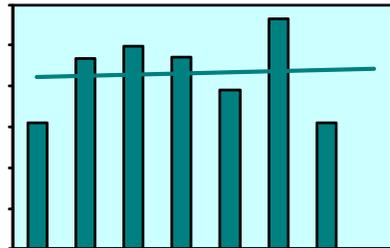
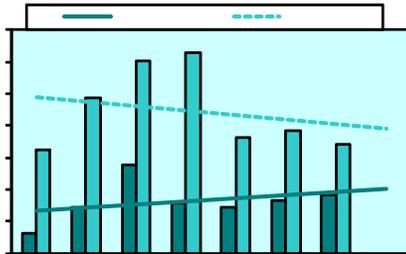
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	48	50
% 5+ Points In The Harvest	1996-98	15	17



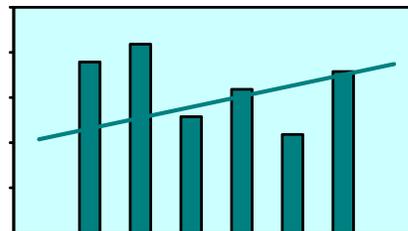
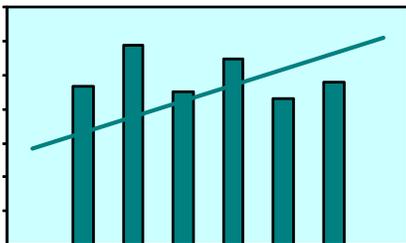
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	314	715	1383	796	716	832	906
Antlered Harvest	1622	2433	3008	3138	1808	1916	1704
% 4+ Points	ND	47	59	45	55	43	48
% 5+ Points	ND	19	21	13	16	11	18
Hunter Numbers	6191	9345	9991	9396	7842	11310	6176

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers prior to 1998 include all deer hunters.



## **ANALYSIS AREA 6**

### ***Management Objectives***

Given the current inability to efficiently census population parameters of white-tailed deer, management objectives will be limited to not falling below 50% 4+ points and 17% 5+ points in the harvest. Although, the population size is unknown, efforts will be made to maintain current status.

### ***Historical Perspective***

White-tailed deer populations in this Analysis Area were historically low. Accounts from Lewis and Clark during the 1800s suggested very few animals were found throughout the Clearwater River country. Populations probably did not change much until the early 1900s when fires converted large expanses of dense coniferous forest into a mosaic of vegetation succession types. Logging also contributed to creating a mosaic of brush fields and uneven-aged forest stands. Populations probably peaked around the 1940 - 1950s, followed by a slight decline. Currently, populations are high.

Historically, white-tailed deer and mule deer were managed as a "single species": a single general season harvest framework was established for both species. In 1973, the Department began to offer species-specific seasons in the Clearwater Region.

These units have either-sex hunting seasons in October. During the mid-1980s the white-tailed deer hunting season was extended into mid-November. In 1990, most November white-tailed deer seasons became either sex. In 1998, the Clearwater Deer Tag was established.

### ***Habitat Issues***

Units 10, 12, 15, and 16 are predominately timber intermixed with brush or grass. The majority of land is public in USFS ownership. Most private ownership is on lower elevation ground located along the Clearwater River. Units 14 and 18 are mixed ownership with private land being located at lower elevations along the Salmon River and mostly USFS owned ground at higher elevations. Private land in Units 14 and 18 consists of summer resort homes and large cattle ranches with limited access. Past logging activities have created high road densities and young successional forests in the western portions of the Analysis Area and throughout most of Unit 15. These areas provide excellent white-tailed deer habitat along with high vulnerability. The eastern portion of this Analysis Area is characterized by rough terrain and limited access except for trails and a few major roads and is generally too high in elevation to sustain good white-tailed deer populations. In general, the western portions of the Analysis Area provide good white-tailed deer habitat especially at lower elevations along the Clearwater and Salmon Rivers. Construction of new home sites have increased white-tailed deer depredation problems and limited hunter access. Noxious weeds such as yellow star thistle and spotted knapweed are out competing native vegetation on white-tailed deer spring and winter ranges.

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 road were built for timber harvest in Units 10, 12, 14, 15, and 16. In 1964, most of the southern portion of Unit 12 was designated as part of the Selway-Bitterroot Wilderness. Historically, sheep herders ran their flocks in the canyons of Units 14 and 18 and logging occurred in the forested areas. Units 14 and 18 are two-thirds public land with the remaining private land at lower elevations along the Salmon River. The majority of the Hells Canyon Wilderness Area, designated in 1975, is in Unit 18.

Cash crops which receive damage from white-tailed deer include wheat, barley, oats, irrigated alfalfa and hay. Some orchards along the Salmon River in Units 14 and 18 experience damage from white-tailed deer if fences are absent.

### ***Biological Issues***

White-tailed deer numbers have increased dramatically in this Analysis Area during the past several decades. The increase was not as dramatic during the mid-1990s. Due to increased hunter densities since the late-1980s in the southern units such as 14, 15, and 18, some sportsmen and landowners have been concerned about hunter interactions, landowner trespass and mature buck survival. From 1991 through 1995 white-tailed deer numbers and hunter numbers stabilized within this Analysis Area. Percent of bucks 4-point or better averaged 51% from 1993 to 1996.

### ***Interspecific Issues***

Increasing white-tailed deer populations within this Analysis Area may have a negative impact on mule deer populations. Lion populations tend to fluctuate in response to changes in white-tailed deer populations due to deer being a major food source for lions.

### ***Predation Issues***

Lion numbers have increased in this Analysis Area during the past decade, probably due to a dramatic increase in white-tailed deer numbers. Black bear numbers have remained static throughout most of this area for the past decade with Units 10, 12, and 16 having an increase within the past 5 years due to reductions in season length limiting backcountry access. Increases in road densities during the past several decades have contributed to increased predator hunting opportunities. Wolves have recently begun to establish themselves in Units 10, 12 and 15 due to reintroduction efforts by the USFWS.

### ***Winter Feeding Issues***

Emergency winter feeding of white-tailed deer has not occurred in the recent past.

### ***Information Requirements***

Population statistics are needed for white-tailed deer. An improved telephone harvest survey and/or the mandatory harvest report should help improve harvest data. Better harvest information is needed concerning mature buck status. There is currently no aerial survey technique perfected for white-tailed deer in North Idaho. Census methodologies are needed to assess population parameters such as fawn:doe:buck ratios, total numbers and mature buck status.

## White-Tailed Deer Analysis Area 7 (Units 16A, 17, 19, 20)

### Buck Status & Minimum Criterion

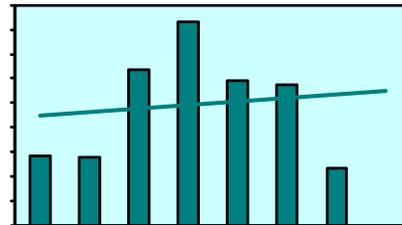
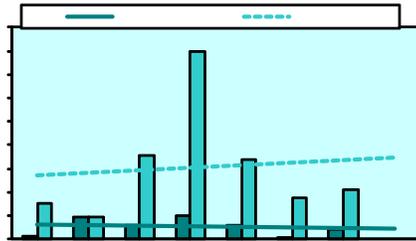
	Survey Years	Current Status	Minimum Criterion
% 4+ Points In The Harvest	1996-98	46	30
% 5+ Points In The Harvest	1996-98	21	7



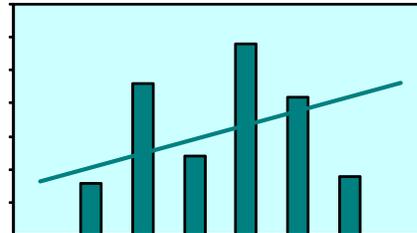
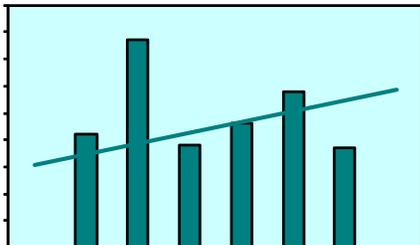
### Analysis Area Harvest Statistics

	1992	1993	1994	1995	1996	1997	1998
Antlerless Harvest	13	96	57	102	60	9	45
Antlered Harvest	155	97	357	796	338	175	213
% 4+ Points	ND	42	77	38	46	58	37
% 5+ Points	ND	8	23	12	29	21	9
Hunter Numbers	1414	1387	3185	4168	2959	2885	1172

Note: Harvest data based on telephone results of general season and controlled hunts.  
ND = no harvest data available.



\* Note: Hunter numbers prior to 1998 include all deer hunters.



## **ANALYSIS AREA 7**

### ***Management Objectives***

Given the current inability to efficiently census population parameters of white-tailed deer, management objectives will be limited to not falling below 30% 4+ points and 7% 5+ points in the harvest. Although, the population size is unknown, efforts will be made to maintain current status.

### ***Historical Perspective***

White-tailed deer populations in this Analysis Area were probably historically low. Accounts from Lewis and Clark during the 1800s suggested very few animals were found throughout the Clearwater River country. Populations probably did not change much until the early 1900s, when fires converted large expanses of dense coniferous forest into a mosaic of vegetation succession types. Logging also contributed to creating a mosaic of brush fields and uneven-aged forest stands. Populations probably peaked around the 1940 - 1950s, followed by a slight decline. Currently, populations are high.

Historically, white-tailed deer and mule deer were managed as a "single species": a single general season harvest framework was established for both species. In 1973, the Department began to offer species-specific seasons in the Clearwater Region. Deer seasons in these units have historically been general season, either sex, either species. In 1998, the Clearwater Deer Tag was established.

### ***Habitat Issues***

Habitat productivity varies throughout the Analysis Area from high precipitation forested areas along the Lower Selway River to dry, steep, south-facing ponderosa pine and grassland habitat along the Salmon River. Many areas along the Salmon River have a good mix of successional stages due to frequent fires within the Wilderness Areas. Fire suppression within portions of the Selway River drainage have led to decreasing forage production for deer. Road densities are low, contributing to low vulnerability for deer. Noxious weeds such as spotted knapweed are out competing native grasses and vegetation throughout deer habitat especially on drier sites at lower elevations.

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

### ***Biological Issues***

White-tailed deer numbers are believed to be increasing within this Analysis Area especially at lower elevations where they can better survive severe winter weather. As deer have expanded and white-tailed deer hunting in Idaho has become more popular, hunter numbers in this

Analysis Area have increased 38% from 1991 to 1996. Similarly, harvest has increased 36% during the same time period. Percent of bucks 4-point or better averaged 51% from 1993 to 1996.

### ***Interspecific Issues***

Increasing white-tailed deer populations within this Analysis Area may have a negative impact on mule deer populations. Lion populations tend to fluctuate in response to changes in white-tailed deer populations due to deer being a major food source for lions.

### ***Predation Issues***

Lion harvest has remained static in this area for several decades, but has increased since the 1970s. Harvest is usually between 10 and 20 lions per year. Bear numbers are also stable as the small amount of harvest on these species has little impact on populations. Harvest rates of bears and lions are probably reflective of access difficulty due to snow accumulation and few roads. Lion numbers may impact white-tailed deer densities, however, bears have limited impact on deer populations. Wolves have established themselves in this area and grizzly bears may be reintroduced within the next decade into some of these units.

### ***Winter Feeding Issues***

Emergency winter feeding of white-tailed deer has not occurred in the recent past.

### ***Information Requirements***

As white-tailed deer densities increase within this Analysis Area, reliable population statistics will become more important for management purposes. Currently, without an estimate for the total white-tailed deer population and improved harvest estimates it is difficult to assess whether or not to manage these units specifically for white-tailed deer. An improved telephone harvest survey and/or the mandatory harvest report should help improve harvest data. Better harvest information is needed concerning mature buck status. There is currently no aerial survey technique perfected for white-tailed deer in North Idaho. Census methodologies are needed to assess population parameters such as fawn:doe:buck ratios, total numbers and mature buck status.

Submitted by:

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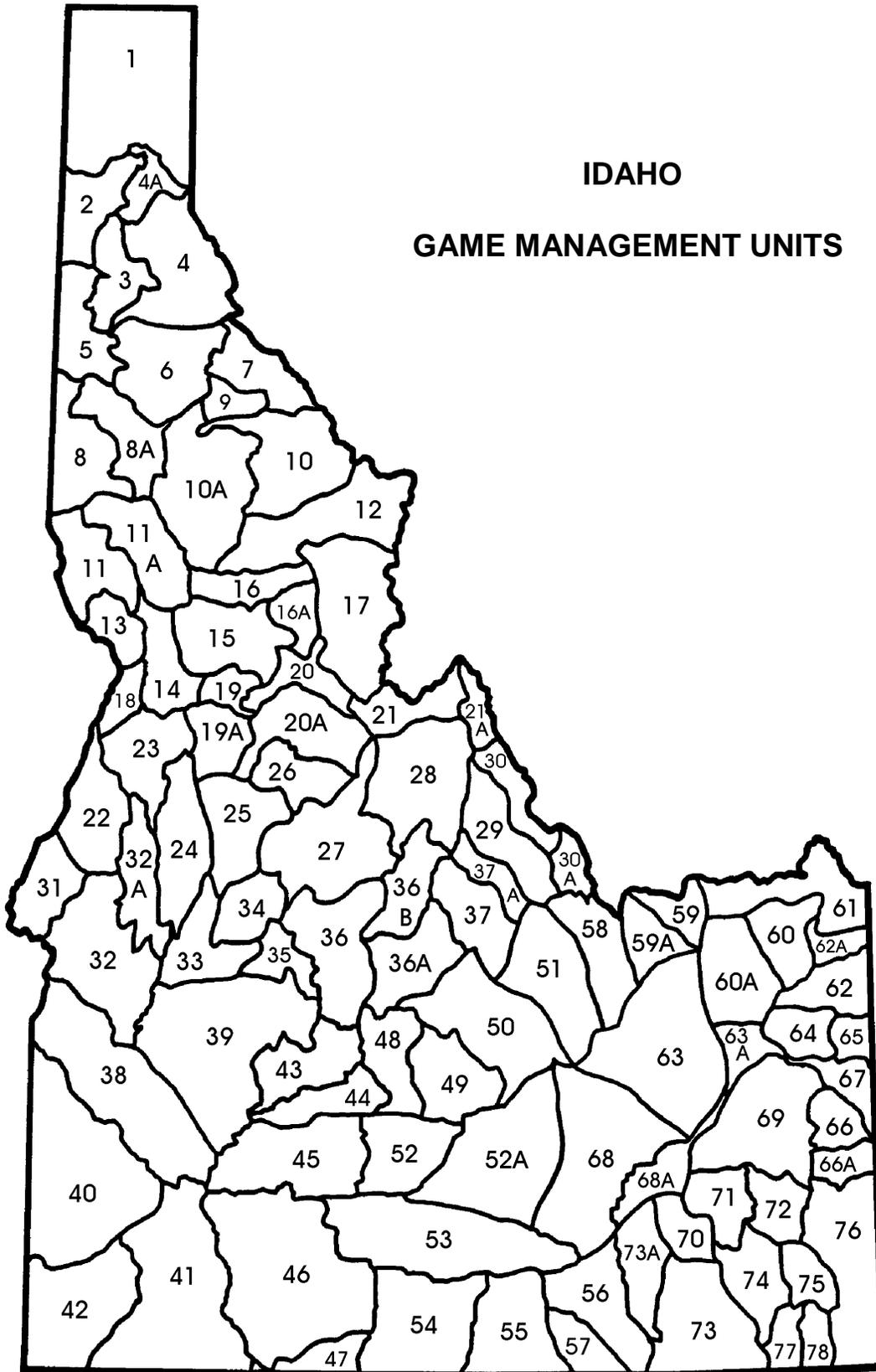
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

*Dale E. Toweill*  
Dale E. Toweill  
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*James W. Unsworth*  
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# 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.

