IDAHO DEPARTMENT OF FISH AND GAME

Cal Groen, Director

Project W-170-R-32

Progress Report

WATERFOWL FALL AND WINTER SURVEYS, PRODUCTION, SUMMER BANDING, AND HARVEST

Study II, Jobs 2 and 3
July 1, 2007 to June 30, 2008

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April 2009
Boise, Idaho

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PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Waterfowl Production and Summer Banding
PROJECT:	W-170-R-32		
SUBPROJECT:	1-7	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	2		

PERIOD COVERED: July 1, 2007 to June 30, 2008

JOB 2. WATERFOWL PRODUCTION AND SUMMER BANDING

ABSTRACT

Data were collected and analyzed on resident ducks, Canada geese, sandhill cranes, trumpeter swans, and tundra swans by Idaho Department of Fish and Game (Department) personnel stationed in the state's seven regions and one subregion. Data are presented in regional reports prepared by regional personnel and compiled by Bureau of Wildlife personnel.

In 2008, Idaho banded 1,880 mallards. Since 1991, 42,103 mallards have been banded in Idaho. Active nests of Pacific Population (PP) Canada geese counted on four survey areas in north Idaho totaled 212 in 2008. Of seven PP Canada goose flocks monitored in 2008, two met the Department's 1991-1995 Waterfowl Management Plan (WMP) active nest or indicated breeding pair objectives based on three-year averages (2005-2007). Of nine Rocky Mountain Population (RMP) Canada geese flocks counted with objectives, only two are meeting or exceeding the indicated breeding pair objectives based on three-year averages (2005-2007).

After several years of transplanting geese in response to property damage/depredation complaints in the Southwest Region, none were moved from 2005-2008. No geese were banded during the reporting period. No early September Canada goose hunts were held in 2008. In the Upper Snake Region, no depredating geese were captured; however, the Department depredation program was utilized to provide material to landowners to prevent young from walking out of the Snake River into fields. Additionally, license dollars were utilized to oil Canada goose nests located on islands in Gem Lake under a permit from the U.S. Fish and Wildlife Service (USFWS).

The combination fixed-wing and ground count of sandhill crane in September was completed in 2008. A total of 65,472 cranes were counted in Idaho. Controlled hunts were held in early September on sandhill cranes in five areas and an estimated 185 cranes were harvested.

Tundra swans, American coots, and common snipe received little management emphasis; these species benefit from statewide programs aimed at other species. Department management area descriptions; duck, goose, and sandhill crane hunting season structures; and bag and possession limits for the previous season are provided in Appendix A.

STUDY OBJECTIVES

1. Determine production and trends of resident waterfowl.

2. Determine movements, distribution, and survival rates of resident waterfowl.

PROCEDURES

1. Conduct Canada goose breeding pair aerial surveys and nest searches for specific survey areas and implement a triggering mechanism for determining when to reduce the goose harvest.

2. Band locally-produced waterfowl and monitor movements and survival rates.

3. Trap Canada goose goslings and transplant them into areas where new flocks may be started or to supplement existing low populations.

DUCKS (ALL SPECIES)

Current Management Plan Goals

1. Reverse the decline in the number of duck hunters.

2. Reverse the decline in duck harvest.

3. Determine duck nesting success at least twice (every other year) on all Wildlife Management Areas (WMAs) where waterfowl production is a priority.

4. Maintain a 30% nest success for upland nesting ducks on WMAs where waterfowl production is a priority.

5. Develop and implement a predator management strategy for priority WMAs where nest success is less than 30%.

6. Establish duck production surveys in at least one region in cooperation with the USFWS.

Management Areas

Management Area 1

Background and Management Philosophy: Management Area 1 was established in 1985 by emergency order of the Idaho Fish and Game Commission (Commission). This order came as a result of a 1985 USFWS regulation which allowed Indian tribes to have hunting seasons for non-tribal members which differ from the remainder of the state. The first boundaries of Area 1 included only part of the Fort Hall Indian Reservation and were arrived at after negotiations between the Department, the USFWS, and the Shoshone-Bannock Tribes. The Department did

not object to the Tribes' request for a special hunt area because impacts to resident and migrant ducks and law enforcement problems were expected to be minimal. Area 1 was enlarged after the 1985-1986 hunting season to include the entire Fort Hall Indian Reservation and portions of adjacent counties. The purpose was to place the entire reservation under one set of rules to avoid disputes between the Tribes and the state over Reservation boundaries.

Several times during the late 1980s and early 1990s, the USFWS denied the Department's request to rezone the state. This rezoning would have placed all of northern, central, and southeastern Idaho in one area and southwestern Idaho in another. The USFWS's reasons for denial were low duck numbers continent-wide, a fear of increased harvest, and a strict moratorium on rezoning until duck populations rebounded.

Prior to the 1985-1986 hunting season, the state was divided into two areas: those counties and parts of counties within the Columbia Basin Mallard Wintering Area (northern and southwestern Idaho), and the remainder of the state (central and southeastern Idaho). Bag and possession limits prior to the 1985-1986 season were seven and 14, respectively. Beginning in 1985-1986, season length and bag and possession limits were reduced as mandated by the USFWS because of poor duck production and recruitment continent-wide resulting from drought and habitat degradation.

Early in 1991, the USFWS and the Pacific Flyway evaluated the effects of zones on duck harvest. They concluded that zones do not influence harvest and, consequently, the moratorium was lifted on changing zones beginning with the 1991-1992 season. As a result, the Department rezoned the state. It retained Area 1 with its previous boundaries and divided the remainder of the state into two zones or management areas (Areas 2 and 3). For historical season framework information, refer to the 2003 version of this report.

For the 2003-2004 season, the Department changed the boundaries for Area 1 to include all of northern, central, and southeastern Idaho. The USFWS offered the same 107-day season as in 2002-2003 with the exception of a 60-day "season within a season" for both pintails and canvasbacks. The Tribes chose to start their season the same day as the rest of Area 1, and the season was 105 days with no split. The two-day youth waterfowl season was 27-28 September.

For the 2004-2005 season, the Department rezoned the state into three areas. Area 1 included all of northern and central Idaho, and all of southeastern Idaho except for the Fort Hall Reservation. The previous boundaries for Area 1 (Fort Hall Reservation) were renamed Area 3. The USFWS offered the same 107-day season as in 2003-2004 and the same 60-day "season within a season" for both pintails and canvasbacks. The season was 105 days with no split, and the two-day youth waterfowl season was 25-26 September.

Beginning with the 2005-2006 season, Areas 1 and 3 were combined and renamed Area 1. The USFWS again offered a 107-day season and a 60-day "season within a season" for canvasbacks. The season was 105 days with no split, and the two-day youth waterfowl season was 24-25 September.

For the 2006-2007 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The season was 105 days with no split, and the two-day youth waterfowl season was 30 September-1 October.

For the 2007-2008 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The season was 105 days with no split, and the two-day youth waterfowl season was 29-30 September.

The description, season framework, and bag and possession limits of Management Area 1 can be found in Appendix A.

Management Area 2

Background and Management Philosophy: Management Area 2 was established in 1991 as a result of the USFWS lifting its moratorium on zone changes. This area included those counties that generally freeze up early. From 1985-1986 through 1990-1991, this portion of the state was included with south-central and southwestern Idaho because the USFWS prohibited more than two zones (the Fort Hall area and the remainder of the state). Prior to 1985-1986, much of Area 2 was included in the Columbia Basin Mallard Wintering Area that had a 100-day season and bag and possession limits of seven and 14, respectively.

For the 1997-1998 through 2002-2003 seasons, Area 2 and Area 3 were combined and renamed Area 2 to simplify the hunting brochure. For historical season framework information, refer to the 2003 version of this report.

For the 2003-2004 season, the Department changed the boundaries for Area 2 to include only southwestern and south-central Idaho. The USFWS offered the same 107-day season as in 2002-2003 with the exception of a 60-day "season within a season" for both pintails and canvasbacks. The season started one week later than the rest of the state and was 105 days with no split. The two-day youth waterfowl season was 27-28 September.

For the 2004-2005 season, Area 2 retained the same boundaries as in 2003-2004. The USFWS offered the same 107-day season as in 2003-2004 and the same 60-day "season within a season" for both pintails and canvasbacks. The season was 105 days with no split, and the two-day youth waterfowl season was 25-26 September.

For the 2005-2006 season, the USFWS again offered a 107-day season and a 60-day "season within a season" for canvasbacks. The season was 105 days with no split, and the two-day youth waterfowl season was 24-25 September.

For the 2006-2007 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The season was 105 days with no split, and the two-day youth waterfowl season was 30 September-1 October.

For the 2007-2008 season, the USFWS offered a 107-day season for ducks, snipe, and coot statewide. The season was 105 days with no split, and the two-day youth waterfowl season was 29-30 September.

The description, season framework, and bag and possession limits of Management Area 2 can be found in Appendix A.

Management Area 3

Background and Management Philosophy: Management Area 3 was established in 1991-1992 as a result of the USFWS lifting its moratorium on zone changes. This area included those counties that normally freeze up later than those in Area 2. From 1985-1986 through 1990-1991, this portion of the state was included with north and eastern Idaho because USFWS prohibited more than two zones (the Fort Hall area and the remainder of the state). Prior to 1985-1986, Area 3 was included in the Columbia Basin Mallard Wintering Area which had a 100-day season and bag and possession limits of seven and 14, respectively.

Beginning with the 1997-1998 season, Area 3 was combined with Area 2 and renamed Area 2 to simplify the hunting brochure and the state was left with only two duck management areas.

For the 2004-2005 season, the Department rezoned the state into three areas. The Shoshone-Bannock Tribe's Fort Hall Reservation (historically Area 1) was renamed Area 3. The USFWS offered a 107-day season including a 60-day "season within a season" for both pintails and canvasbacks. The Tribes chose to start their season the same day as newly rezoned Area 1, and the season was 105 days with no split. The two-day youth waterfowl season was 25-26 September (Appendix A).

Beginning with the 2005-2006 season, Areas 1 and 3 were combined and renamed Area 1, and the state was again left with only two duck management areas.

Regional Reports

Panhandle Region

Population Surveys: Approximately 85% of over 1,000 wood duck nest boxes located in the Panhandle were available for nesting in 2008. A total of 325 boxes were evaluated. Cavity-nesting ducks (wood ducks, common goldeneye, bufflehead, and hooded mergansers) utilized 156 (48%) of the boxes evaluated. Sixty-eighty percent of the observed nests successfully hatched at least one egg.

Breeding pair/brood duck production surveys were conducted on the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs in 2008. Two breeding pair surveys were conducted in May, followed by brood counts conducted in June (once), July (once), and August (once). A total of 938 breeding duck pairs produced 126 observed broods (13% success) and 637 ducklings (five ducklings per brood). While a wide variety of duck species were recorded during the pair counts, many of these species leave prior to breeding and consequently artificially

lower the referenced success rates. The dominant breeding duck species in the Panhandle are mallards, wood ducks, and to a lesser extent, blue-winged and green-winged teal.

Trapping and Transplanting: A total of 1,664 ducks were trapped and banded by Department personnel in the Panhandle Region during summer 2008 (Tables 1 and 2). Mallards comprised 79% of the sample. Banding occurred at the Coeur d'Alene River, Pend Oreille, McArthur Lake, and Boundary Creek WMAs. No transplanting projects were conducted.

Management Studies: Since 1991, a total of 17,870 locally-produced ducks have been banded during breeding season at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs.

Waterfowl check stations were operated at the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs on the opening Saturday and Sunday of the 2008 duck season. A total of 213 hunters expended 890 hours of effort to harvest 339 ducks (1.59 ducks/hunter; 2.63 hours/duck).

Panhandle staff assisted with a statewide avian influenza sampling effort. Oral and cloacal swabs were collected from trapped and hunter-harvested ducks as part of a coordinated statewide sampling effort in 2008.

Management Implications: The installation of nest boxes in appropriate wetland habitat throughout the Panhandle Region has significantly increased production of cavity-nesting ducks. Although wood ducks are the target species for this effort; common goldeneye and hooded mergansers also frequently use these boxes. Through the Habitat Improvement Program (HIP), many of these nest boxes are now placed on private lands and contribute to the overall improvement in duck production throughout the region.

Clearwater Region

Population Surveys: The number of ducks present in the Clearwater Region is so small that little active management is possible. No population surveys for ducks are conducted within the region.

A small breeding population of wood ducks nests in the Clearwater Region. From 1988-1998, in an attempt to enhance this species' presence, nest boxes were erected in conjunction with the Department's HIP program. A landowner survey of wood duck use of nest boxes was discontinued in 2005 due to poor return rates on data cards. Many of these structures are no longer usable. Since 2001, the U.S. Army Corps of Engineers has installed over 30 wood duck nest boxes along the lower Snake and Clearwater River levee ponds and sloughs. A resident population resides in the valley and disperses out from this source.

Trapping and Transplanting: No ducks were banded in the Clearwater Region during this reporting period.

Management Implications: The development of ponds and shallow water areas through the HIP program has improved local duck nesting in the region, though no production surveys are conducted to monitor this. Future production surveys may be worthwhile at trapping sites if numbers increase.

Southwest (Nampa) Region

Population Surveys: No surveys for estimating duck nesting success and production were conducted on WMAs during the reporting period.

Trapping and Transplanting: Forty mallards were banded at the Fort Boise WMA in the Southwest (Nampa) Region during this reporting period (Tables 1 and 2).

Habitat Conditions: Precipitation in the Southwest Region was above average during winter and spring. Because no regional wetland surveys are conducted, the exact extent of wetlands is unknown. The waterfowl production from these wetlands is also unknown.

Management Implications: As the Department implements the statewide HIP program, it is anticipated that the number of acres of wetland will increase, contributing to the goal of increasing Idaho's resident and wintering duck populations.

Prescribed fire and herbicide are being used on WMAs to open up dense stands of vegetation. Opening these stands will make them more attractive and productive to waterfowl broods.

Southwest (McCall) Region

Population Surveys: No population surveys are conducted for ducks in the McCall sub-region. Ducks are numerous and mostly associated with the Cascade Reservoir ecosystem.

Various local groups, such as the Boy Scouts and Reservoir Association, erect wood duck nest boxes. No effort was made to monitor the number of boxes installed by these private organizations. Maintenance of these boxes is encouraged annually.

Trapping and Transplanting: No ducks were banded by the Southwest (McCall) Region during this reporting period.

Management Implications: The HIP program and other programs will be utilized to enhance duck nest production. Priority will be placed on projects that stabilize water levels and enhance nest production on Cascade Reservoir.

Magic Valley Region

Population Surveys: No population surveys for ducks were conducted in the Magic Valley Region during the reporting period.

Habitat Conditions: Precipitation during the 2007-2008 winter and spring was approximately average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Trapping and Transplanting: No ducks were banded in the Magic Valley Region during this reporting period (Tables 1 and 2).

Management Implications: Although ducks are produced annually on Hagerman, Niagara, Billingsley Creek, Centennial Marsh, and Carey Lake WMAs, much of the region's duck production occurs in cultivated areas along canals and near small reservoirs and stock ponds. In general, wetland habitats are limited in the region and have been adversely affected by successive drought years. At WMAs, where duck production is a priority, breeding pair and brood surveys are currently not conducted.

Southeast Region

Population Surveys: Duck nest success and brood surveys have been conducted on the Sterling WMA periodically since the mid-1990s; however, none were completed in 2008.

Twenty-four wood duck nest boxes are located in the region. No boxes were checked during this report period.

Predator Management: Graduate student research from 1993-1995 indicated high magpie populations on Sterling WMA in association with dense Russian olive stands. Russian olive stands were removed in the late 1990s in an attempt to reduce predation and increase waterfowl nest success. Subsequent field observations suggested that mammalian predators began to replace magpies following tree removal. Mammalian predator removal efforts were initiated in 1997 and continued through 2008. Other predator management efforts included removal of potential den sites (e.g., culverts, brush, and junk piles).

Trapping and Transplanting: No ducks were banded in the Southeast Region during this reporting period.

Upper Snake Region

Population Surveys: No population surveys were conducted during this reporting period.

Climatic Conditions: Winter 2007-2008 received average levels of precipitation according to historical averages; however, it was wetter than the previous 10-12 years. Summer 2008 received average levels of precipitation.

Habitat Conditions: Most ducks in the region are produced on Market Lake and Mud Lake WMAs and Camas National Wildlife Refuge (NWR). Duck production on all of these areas is influenced by water levels. Abnormally wet or dry years can reduce production. Numerous other areas of duck habitat, ranging from small beaver ponds and potholes to riparian communities along the Snake River occur throughout the region. Some areas are severely

impacted by livestock grazing while other areas are impacted by irrigation withdrawal, invasive noxious weeds, or housing development. The region is working with private landowners, local weed control areas, the Bureau of Land Management (BLM), U.S. Forest Service, Natural Resource Conservation Service, and other non-government groups to improve the quality of nesting and brood-rearing habitat through HIP.

The best wood duck habitat in the region is on the North Fork Snake River below St. Anthony, the South Fork Snake River below Burns Creek, and the Snake River above Roberts. These areas have excellent cottonwood riparian communities and numerous slow-flowing and backwater sloughs. Except for Cartier Slough WMA, Deer Parks WMA, and the Warm Slough Access Area, the land ownership is a mix of private and BLM lands. Market Lake, Mud Lake, and Sand Creek WMAs have limited wood duck nesting habitat around the edges of marshes and ponds.

Habitat Improvements: On Market Lake WMA, 123 acres were farmed during 2008. A variety of crops were planted and left standing for waterfowl and upland game use.

On Mud Lake WMA, approximately 75 acres were planted to food plots for waterfowl and upland game during 2008. On Chester Wetlands and Sand Creek WMAs, 42 acres of food plots were planted.

Trapping and Transplanting: No ducks were trapped for transplanting in the Upper Snake Region during this reporting period. Three hundred nine mallard, two redhead, two northern pintail, and seven green-winged teal were banded during this reporting period. One hundred ten of these were tested for H5N1 highly-pathogenic virus in the Upper Snake Region during September 2008 (Tables 1 and 2). Laboratory analysis did not detect any highly-pathogenic H5N1 virus in any of the ducks sampled.

Waterfowl Die-offs: No major waterfowl die-offs occurred in Upper Snake Region during this reporting period.

Depredation: The region received one depredation complaint for waterfowl damaging alfalfa in Bonneville County. Utilizing the Department's depredation program dollars, material was provided to the landowner to prevent young from walking out of the Snake River into the fields. Additionally, utilizing license dollars, Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from USFWS.

Predator Control: The Department did not conduct predator removal for waterfowl during 2008; however, hunters and trappers remove some predators during normal furbearer seasons.

Management Implications: Management direction in the 1991-1995 WMP is to maintain at least 30% duck nesting success on important duck-producing WMAs and increase duck production by improving nesting habitat on WMAs and through HIP. Production surveys are to be used on WMAs where duck production is a priority to monitor production and measures taken to increase production where it is low.

Nest success has not been monitored since the early 1990s. Mayfield nest success estimates at Market Lake WMA were around 20% each year that surveys were done. This is below the objective of 30% for the WMA. Nest predation appeared to be caused by both avian and mammalian predators. Mammalian predation appeared higher on nests in large *Juncus* habitat blocks while avian predation appeared higher in fragmented cattail and hardstem bulrush habitat patches.

Results from nest searches and nest success estimates on Market Lake suggest that ducks are not using some plant communities for nesting. Very few nests were found in the old *Juncus* meadows. Reseeding at least some of these communities to cover providing more structure (e.g., a rank bunchgrass) should be considered and the areas then monitored for nest attempts and success.

Duck nest surveys conducted on Mud Lake WMA generally indicated above 30% nesting success.

The region has some excellent wood duck habitat along the Snake River but has lacked nesting boxes. Adopt-A-Wetland groups and habitat biologists have placed some nesting boxes along the Snake River. Incidental observations suggest a wood duck nesting population has established along the Snake River.

Salmon Region

Population Surveys: No population surveys are conducted for ducks in the Salmon Region.

Trapping and Transplanting: No ducks were banded in the Salmon Region during this reporting period.

GEESE (ALL SPECIES)

Current Management Plan Goals

1. Increase Idaho's breeding Canada goose populations and wintering populations.

2. Increase the annual goose harvest to 50,000 birds.

3. Maintain the average number of geese harvested per hunter per season above 3.0.

4. Increase hunter days to 130,000 annually.

Management Areas

Management Area 1

Background and Management Philosophy: Management Area 1 includes both PP and RMP Canada geese (Figure 1). The boundary between the two populations is U.S. Highway 93 from

the Idaho-Nevada border to Shoshone, State Highway 75 from Shoshone to Challis, and U.S. Highway 93 from Challis to the Montana-Idaho border. The PP occurs west of this boundary; the RMP occurs to the east.

Management Area 1 was created in 1990 to implement changes in seasons, limits, and hunt area boundaries identified in the 1991-1995 WMP. Area 1 originally included only Benewah, Bonner, Boundary, Kootenai, and Shoshone counties. In 1993, the counties of Clearwater, Idaho, Latah, Lewis, and Nez Perce were added to Area 1 to take advantage of an increasing resident Canada goose flock.

In 1998, Lemhi, Custer, Butte, Clark, Jefferson, Fremont, Madison, Teton, Bonneville, Caribou, Bear Lake, Franklin, and Oneida counties were included in Area 1 to simplify the hunting brochure.

In 2003, Area 1 was expanded to include Adams and Valley counties and all of Area 3 (the Fort Hall Indian Reservation). In 2007, the Department moved all of Camas and Blaine counties, the Camas Creek drainage in Elmore County, and Power County west of State Highways 37 and 39 to Area 1. This was done because these locations correspond more similarly to the counties in Area 1 that generally freeze up earlier.

The 1990-1991 goose season opened two weeks prior to the duck season. The 1991-1992 goose season opened the same day as duck season. The 1992-1993 through 1996-1997 goose seasons opened one week before the duck season. The 1997-1998 through 2001-2002 goose seasons opened the same day as duck season. The 2002-2003 goose season opened one week after duck season. Beginning in 2003-2004, goose and duck seasons have opened on the same day.

The description, season framework, and bag and possession limits of Management Area 1 can be found in Appendix A.

Management Area 2

Background and Management Philosophy: Management Area 2 (southwestern Idaho) contains PP Canada geese (Figure 1). Prior to the 1991-1992 season, southwestern Idaho (part of the Southwest Region) was in Area 3 and had restricted limits for part of the season to protect local breeding flocks. For the 1991-1992 season, southwestern Idaho was combined with the rest of central Idaho (Clearwater Region; the remainder of Southwest Region; and parts of Magic Valley, Southeast, Upper Snake, and Salmon regions) to create the new Area 2. This was possible because southwestern Idaho flocks had exceeded breeding pair objectives, and it was determined they could sustain the additional harvest resulting from a 93-day season and bag and possession limits of two and four, respectively, season-long. The season and limits were the maximum allowed by federal regulations for southwestern Idaho but not for the Clearwater Region.

In 1992-1993, Area 2 was reduced slightly in size to simplify the boundary between Area 2 and Area 4. This was accomplished by placing all of Custer and Lemhi counties in Area 4, rather than splitting the counties on Highways 75 and 93. For the 1993-1994 season, Area 2 was

reduced further by placing five northern counties (Clearwater, Idaho, Latah, Lewis, and Nez Perce) in the more liberal Area 1 to take advantage of an increasing local flock of Canada geese.

For the 1994-1995 season, federal regulations allowed for a 100-day season and bag and possession limits of four and eight, respectively. The Department selected the 100-day season to take advantage of the healthy local population and strong migrant population but chose bag and possession limits of three and six geese, respectively, instead of the maximum allowed over concerns that a daily bag of four would result in an over-harvest of local geese. In 1998-1999, the Department added south-central Idaho (Area 3 from 1991-1992 through 1997-1998) to Area 2 to simplify the hunting rules and hunting brochure.

In 2002-2003, the Department split Area 2 back into two separate areas (Areas 2 and 4 for 2002-2003; Areas 2 and 3 for 2003-2004 and 2004-2005) and raised the bag and possession limits for Area 2 to four and eight geese, respectively. In 2003, Area 2 was reduced and Adams and Valley counties were added to Area 1.

Beginning in 2005, Areas 2 and 3 were combined and the state was left with only two goose management areas. In 2007, the Department moved all of Camas and Blaine counties, the Camas Creek drainage in Elmore County, and Power County west of State Highways 37 and 39 to Area 1. This was done because these locations correspond more similarly to the counties in Area 1 that generally freeze up earlier.

The 1990-1991 goose season in Area 2 opened two weeks prior to the duck season. The 1991-1992 goose season opened the same day as duck season in the northern portion and one week earlier than duck season in the southern portion. For the 1992-1993 through 1996-1997 seasons, goose season opened one week prior to duck season. The 1997-1998 through 2001-2002 goose and duck seasons opened on the same day. For 2002-2003, the goose season opened one week after duck season.

Beginning in 2003-2004, the seasons have opened on the same day. Management Area 2 currently includes all of Washington, Payette, Gem, Boise, Canyon, Ada, Owyhee, Gooding, Twin Falls, Lincoln, Jerome, Cassia, and Minidoka counties and all of Elmore County except the portion in the Camas Creek drainage.

The description, season framework, and bag and possession limits of Management Area 2 can be found in Appendix A.

Management Area 3

Background and Management Philosophy: Management Area 3 (south-central Idaho) has been under restrictive harvest management (more conservative than allowed by federal regulations) for many years to minimize the harvest of local geese. Seasons have had delayed opening dates and/or reduced bag and possession limits for all or part of the season. Management Area 3 was Management Area 4 prior to the 1991-1992 season. It includes both PP and RMP geese (Figure 1). The area was enlarged slightly for the 1991-1992 season to include parts of Camas and Elmore counties and an additional portion of Blaine County because of low goose

production. The area was enlarged again in 1992-1993 to include all of Blaine and Camas counties because of low goose production.

The 1990-1991 season was the first season for many years that ran the maximum of 93 days allowed by federal regulations. From 1994-1995 through 1997-1998, seasons were extended to 100 days, the maximum allowed, but restrictive limits (two dark geese) were retained to protect local flocks.

For 1998-1999 through 2001-2002, the goose daily limit was increased to three of any kind and Area 3 was combined with Area 2 and renamed Area 2 to simplify hunting rules and the hunting brochure.

For the 2002-2003 season, zones were changed again and former Area 3 (prior to 1998-1999) became Area 4 with bag and possession limits of three and six, respectively. For the 2003-2004 and 2004-2005 seasons, the Area was renamed Area 3. Beginning in 2005, Areas 2 and 3 were combined and the state was left with only two goose management areas.

The 1990-1991 goose season opened two weeks prior to the duck season. From 1991-1992 through 1996-1997, goose seasons in Area 3 opened one week prior to duck season. The 1997-1998 through 2001-2002 goose and duck seasons opened on the same day. The 2002-2003 goose season opened one week after duck season. The seasons have opened on the same day since 2003-2004.

Management Area 4

Background and Management Philosophy: Management Area 4 was created in 1991-1992 to take advantage of increased limits and a 93-day season allowed by federal regulations. Bag and possession limits were increased from two and four, respectively, to three and six, respectively, for 1991-1992 due to increasing numbers of geese throughout the population. Beginning in 1993-1994, the season was increased to 100 days, the maximum allowed by federal regulations. Beginning in 1995-1996, daily bag and possession limits were increased to four and eight, respectively.

Prior to 1991-1992, Area 4 was combined with central Idaho to form Area 2. Goose seasons for Area 4 were set to take full advantage of all days and maximum limits allowed by federal regulations. The 1990-1991 goose season in eastern Idaho opened two weeks prior to the duck season. In 1991-1992, the Area 4 goose season opened the same day as duck season. For 1992-1993 through 1996-1997, the goose season opened one week prior to duck season. The 1997-1998 goose and duck seasons opened on the same day.

In 1998-1999, Area 1 (north Idaho) and Area 4 (central and eastern Idaho) were combined to simplify the hunting brochure. The number designation for the area was changed to Area 1 and the state was left with only three goose management areas through the 2001-2002 season. For the 2002-2003 season, the Department split Area 2 into two separate areas and designated south-central Idaho as Area 4. Bag and possession limits were three and six, respectively.

In 2003, the Department combined Areas 1 and 3 (now called Area 1), and Area 4 was renamed Area 3. The state has not had an Area 4 since 2003.

Management Area 5

Background and Management Philosophy: Management Area 5 was created in 1987 to conform to Area 1 for ducks. This was made necessary because the Shoshone-Bannock Indian Tribes requested a goose hunting season, for non-tribal members, which differed from the rest of the state. See "Ducks, Management Area 1" for additional information. The Department has not objected to the Tribes' request for a special goose season because their impacts on local and migrant geese and law enforcement problems have been minimal.

Area 5 (the Fort Hall Indian Reservation) remained in place through the 1997-1998 season. In 1998, the Department combined areas and Area 5 was renamed Area 3 through the 2002-2003 season. In 2003, the Department combined the Fort Hall Indian Reservation with Area 1. The state has not had an Area 5 since 1998.

Regional Reports

Panhandle Region

Population Surveys: Canada goose nest surveys were conducted on the Boundary Creek, McArthur Lake, Pend Oreille, and Coeur d'Alene River WMAs in 2008 (Figure 2). A total of 212 nests were located.

Historically, McArthur Lake WMA produced the greatest number of geese in the Panhandle Region, peaking at 117 nests in 1982. By 1987, this number had declined to 55 nests, attributable primarily to raven depredation. Predator control efforts were implemented and helped to stabilize production. During dam reconstruction, the reservoir was drained from September 1994 to March 1995. The number of goose nests declined to 24 and remained low thereafter. In 2008, 35 nests were observed (Table 3).

The Coeur d'Alene River WMA supported >10 nesting pairs of geese in 1979. Following a decade-long gosling transplant program, the population increased dramatically. The population was further bolstered by the addition of ~150 goose nesting platforms. Nesting pair numbers increased to ~100 pairs during the 1990s. A decline is evident in recent years. A total of 49 nests were located in 2005 after which significant effort was directed towards nest platform maintenance. A total of 60 nests were observed in 2008 (Table 4).

The Pend Oreille WMA consists of scattered parcels along Pend Oreille Lake and the Pend Oreille River. The number of nesting geese located on the Pend Oreille has remained high in recent years. A total of 107 goose nests were located in 2008.

Ten Canada goose nests were located on the Boundary Creek WMA during 2008. However, additional production was evident. Two gang broods totaling ~50 goslings fledged from the site.

Production on the area is expected to increase as nesting patterns are established and more nesting structures are installed.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Panhandle Region during the reporting period. Eighty-two geese were banded in 2008.

Management Implications: Canada goose nesting initially increased in the Panhandle Region in response to the placement of man-made nest structures and a gosling transplant program. Production declined in the early 2000s, presumably in response to a lack of platform maintenance. An increased emphasis was placed on maintaining existing nest structures beginning in 2005, and the number of nesting geese initially increased. Numbers of nesting geese are currently considered to be static to slightly decreasing.

HIP has significantly increased the number of nest structures erected on private property since 1988. There are more structures on private land than there are on Department property.

From 1973 through 1996, Canada geese goslings were banded each summer at McArthur Lake WMA, as well as all goslings transplanted to the Coeur d'Alene River WMA. This program was terminated in 1997. The region's banding efforts are now concentrated on ducks.

Slightly over half (55%) of the band returns from hunter-harvested geese came from the five-county area of the Panhandle Region. Locally-produced geese winter primarily in eastern Washington and the Tri-cities area along the Columbia River, besides Pend Oreille and Coeur d'Alene Lakes in the Panhandle Region. The mean (unadjusted for non-reporting bias) direct recovery rate for Canada geese banded in the Panhandle Region for 23 years was 11.2%.

Clearwater Region

Population Surveys: An established flock of PP Canada geese nest in the Clearwater Region. These birds nest along the lower 22 miles of the Clearwater River, primarily from Lewiston upstream to Peck (Figure 2). The March 2008 breeding pair survey of this area resulted in a count of 53 indicated pairs and a total of 117 Canada geese (Table 4). Numbers of active nests in this area have been counted consistently from 1981 through 2006. Their nesting success had been enhanced in this area with man-made nest structures placed on islands in the 1980s and early 1990s. Consistent data collection of goose nest structure use in the Clearwater Region began in 1988. The number of structures peaked at 80 in the early 1990s. Issues related to a burgeoning population in the late 1990s have resulted in a change in management. The total number of structures slowly declined as those found unserviceable were removed. The last structures were removed after the 2006 nesting season. Management direction will encourage natural ground nesting on the islands. Ten years of summer goose counts conducted in the Lewiston/Clarkston valley indicate a stable local goose population.

Additional areas were surveyed for nests beginning in 1992. These included farm ponds in the region where nesting structures were issued to landowners, and Mann Lake, Middle Fork Clearwater River, Palouse River, Potlatch River, and Red River. This survey area has been discontinued, as it surveyed nest structure use only. Poor return rates on data cards were another

factor in discontinuing this survey. Most of these structures are no longer being maintained for geese.

Depredation: The number of goose complaints remained low over the reporting period. The increased hunting pressure and harvest in and around past depredation complaint areas has effectively reduced calls concerning crop damage. No complaints of crop damage were taken involving Canada geese. The lack of complaints reported around the Mann Lake area are likely a result of the Department's reduction in the size of the waterfowl hunting closure in 2001.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Clearwater Region in during the reporting period.

Management Studies: Problems associated with large numbers of geese at local parks, golf courses, and the Lewiston airport have subsided somewhat due to favorable habitat conditions and dispersal of birds. No trapping operations were conducted this year.

To address concerns about the increasing Canada goose numbers in the Lewiston-Clarkston area, the Urban Goose Task Force continues working together to apply management options available to control local goose numbers. Deterrent measures such as hazing and vegetation manipulation have been conducted by private businesses, state, and federal agencies in the area.

In 2004, the U.S. Army Corps of Engineers (USACE) applied for a limited permit from the USFWS to take waterfowl using egg addling in specified areas on the Washington levee system and associated parks, and on one island shared by both Washington and Idaho. These sites were determined to have heavy nesting concentrations due to their location within the city. Much of the local goose problem is tied to these areas. The USACE now annually treats between 30 to 60 nests in the specified areas. Nest searches in April 2008 resulted in all 37 found nests being treated (approximately 250 eggs). They report the program is significantly reducing the level of complaints and human health issues related to the local goose population.

Management Implications: Beginning in 2007, the region changed the method of monitoring Canada geese on the lower Clearwater River (Survey Area 5) from structure and ground nest search to a pair and total goose count. Survey Area 6 was dropped as it tracked only the use of nest structures issued to landowners throughout the region. These structures are no longer being maintained for goose nesting. The adjusted management objectives for Survey Area 5 will be a minimum of 40 breeding pair and minimum of 100 total geese (Table 3).

Southwest (Nampa) Region

Population Surveys: The breeding pair survey for geese was flown in April 2008. The three-year average (757) is below the minimum goal of 900 breeding pairs for the fourth consecutive year. A total of 1,611 Canada geese and 709 breeding pairs were seen (Tables 3 and 4) in addition to large flocks of white-fronted geese (8,150 birds), snow geese (7,300), and sandhill cranes (200). Additionally, the lower Boise River was surveyed from Eagle to the confluence with the Snake River and 86 pairs and 204 total geese were counted.

An urban Canada goose survey was conducted in Boise in 2008 to document prevalence and distribution of urban geese numbers in the Boise area. It was hoped urban goose counts could be correlated with the annual spring pair counts on the Snake and Payette Rivers, which have declined in recent years. Geese were counted in all parks and golf courses in three areas near Boise. Numbers appear stable between years, but we will continue to monitor urban goose populations and compare with other regional goose surveys. A total of 774 geese (252 juveniles) were counted in May 2008.

Climatic Conditions: Precipitation in the Southwest (Nampa) Region was above average during winter 2007-2008 and good habitat conditions were prevalent throughout the region during the summer.

Trapping and Transplanting: During summer 2008, no local geese (goslings or adults) were moved out of the urban area of Boise.

Management Implications: The current three-year average (of highest counts) of Canada goose breeding pairs along the Payette and Snake Rivers (757) is below the minimum pair objectives (900) identified in the 1991-1995 WMP (Connelly and Wackenhut 1990; Figure 2) for the fourth consecutive year. The Southwest Region will continue cautiously with liberalized seasons and limits.

Southwest (McCall) Region

Population Surveys: Dangerous water levels due to fluctuating water management precluded conducting population surveys in a timely manner on the Snake River reservoirs (Brownlee, Oxbow, and Hells Canyon) during the reporting period. An extremely late spring precluded conducting population surveys on Lake Cascade.

Nesting survey and nest structure use data were not collected during the reporting period. Distribution of existing goose nest structures is coordinated region-wide through HIP.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southwest (McCall) Region in 2008.

Management Implications: The 1991-1995 WMP directs the Department to reduce the harvest when the three-year average falls below minimum objectives. The minimum objective for Lake Cascade is 225 geese observed and 100 indicated pairs. These monitoring criteria were developed for the plan without baseline data. Management objectives for these areas should be refined, using available data, before recommendations are made to reduce harvest. These refined objectives should be incorporated into any updates to the 1991-1995 WMP. Population survey data collection will be continued according to guidelines in the 1991-1995 WMP.

Magic Valley Region

Population Surveys: Weather and scheduling prevented completion of the Canada goose breeding pair survey in 2007 and 2008.

In 2006, none of the four survey areas in the Magic Valley Region (Figure 2) met either the minimum breeding pair or total geese objectives as outlined in the 1991-1995 WMP (Tables 3 and 4).

Use of man-made nest structures by Canada geese is monitored during the annual breeding pair survey. During the May 2006 survey, geese were observed to be using 53% (96/180) of the structures. Geese on the Camas Prairie used man-made structures more frequently than did geese on the Snake River because most are maintained annually.

Habitat Conditions: Precipitation during the 2007-2008 winter and spring was approximately average in all major watersheds in the Magic Valley Region. Snake River flows, as usual, were low during nesting season.

Depredation: No goose depredation complaints were received in the region during this reporting period.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Magic Valley Region in 2008.

Management Implications: In recent years, none of the survey areas in the region have met both minimum breeding pair and total geese criteria. Increased bag limits (from two/day to four/day), poor nesting conditions, and reduced availability of artificial nesting structures are all factors that may have contributed to decline in observed spring goose numbers. Many of the nesting structures in the region were constructed in the late 1970s and are no longer functional or are located in areas that are no longer suitable. Current budget constraints and personnel shortages will negatively affect maintenance and monitoring of goose nest structures in the region.

Southeast Region

Population Surveys: Aerial spring pair surveys of RMP Canada geese showed a 246% increase from 2007 to 2008 in the number of indicated pairs counted (Tables 3 and 4). Numbers of both pairs and total geese were higher than the 2005-2007 averages. Current three-year averages for breeding pair counts and total geese are generally below management objectives (Table 3).

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Southeast Region in 2008.

Management Implications: Goose populations, as measured by breeding pair counts and total counts, are generally below the 1991-1995 WMP objectives (Connelly and Wackenhut 1990; Table 3). No formal depredation complaints were filed with the Department during this reporting period; however, Wildlife Services personnel normally deal with waterfowl depredations.

Upper Snake Region

Population Surveys: Two surveys (counts of indicated pairs and total geese) are conducted annually on RMP Canada geese to estimate breeding population trends (Tables 3 and 4). Indicated pairs are below management plan objectives for Market Lake WMA, Mud Lake WMA, Camas NWR, the Teton Basin, Island Park Reservoir area, and the North Fork Snake River. Low indicated pairs may be the result of drought conditions over the past several years. Residential development is impacting goose production in the Teton Basin.

On Market Lake WMA, 15 goose platforms were maintained for use in 2008. At Chester Wetlands, 12 goose boxes were maintained for nesting, and 20 artificial nest structures were maintained on Sand Creek WMA. On Mud Lake WMA, 111 goose platforms were maintained.

Climatic Conditions: Winter 2007-2008 received average levels of precipitation according to historical averages; however, it was wetter than the previous 10-12 years. Summer 2008 received average levels of precipitation.

Habitat Conditions: Most goose nesting on Department WMAs occurs on nesting structures. Nesting on the South Fork Snake River occurs on islands, while nesting at Camas NWR, in the Teton Basin, the North Fork Snake River, and Island Park Reservoir occurs primarily on the ground.

Habitat on the South Fork Snake River and lower Henrys Fork Snake River is being impacted by the invasion of noxious weeds. The Department is a cooperating partner with local weed control districts to address this problem.

Habitat in the Teton Basin is being lost to summer home development. The Department's HIP program has the potential to reduce this loss if landowner cooperation can be obtained.

Goose production along the South Fork is dependent upon water releases from Palisades Reservoir. The U.S. Bureau of Reclamation and the Department jointly researched river flows for optimal goose production during the early to mid-1970s. This study indicated that flows between 8,000 and 16,000 cfs during nesting season were optimal for goose production. However, releases are scheduled to meet irrigation water rights and fisheries needs, which reduces goose production due to nest flooding most years.

Depredation: The region again received complaints of geese depredating on malt barley and alfalfa around Gem Lake in 2008. Utilizing the Department's depredation program dollars, material was provided to the landowner to prevent young from walking out of the Snake River into the fields. Additionally, utilizing license dollars, Canada goose nests located on islands in Gem Lake were oiled with corn oil under a permit from USFWS.

Trapping and Transplanting: No trapping or transplanting occurred during this reporting period.

Waterfowl Die-offs: No major die offs were reported in the region during this reporting period.

Habitat Improvements: On Market Lake WMA, 15 goose platforms were maintained for use in 2008. At Chester Wetlands, 12 goose boxes were maintained for nesting, and 20 artificial nest structures were maintained on Sand Creek WMA. On Mud Lake WMA, 111 goose platforms were maintained. Approximately one acre of new wetland was created on Chester Wetlands WMA and five food plots were maintained.

Management Implications: Goose pair counts were conducted on seven production areas in 2007 (Figure 2). Of the seven areas monitored for indicated breeding pairs, all areas were below 1991-1995 WMP objectives (Table 3). Those that were below objective include Market Lake WMA, Mud Lake WMA, Camas NWR, Teton Basin, Island Park Reservoir area, and the North Fork Snake River above Ashton.

Canada goose production can be increased in the region by erecting additional nest structures on the South Fork Snake River, Island Park Reservoir, and Teton River. Annual maintenance of structures on the South Fork was discontinued a few years ago and most have fallen into disrepair. Habitat biologists are also no longer servicing platforms on Island Park Reservoir because of conflicts with reservoir recreationalists. Annual maintenance of structures on other non-WMA areas of the region is not being done as needed for goose nesting.

Geese produced around Gem Lake cause annual depredations on malt barley. Goose platforms were erected around Gem Lake as mitigation for the Idaho Falls hydropower project; however, no brood habitat was included in the mitigation plan. These geese are basically urban geese and difficult to harvest and control numbers. This year, the Department obtained permission from the USFWS to oil nests in Bonneville County. Nineteen nests containing 92 eggs were oiled with corn oil to prevent hatching. This appeared to decrease the level of depredation to an acceptable level. This work was accomplished utilizing license dollars under the Department's depredation prevention program.

Salmon Region

Population Surveys: The Salmon River (U.S. Highway 93 bridge at Challis to North Fork; Figure 2) was surveyed from the ground for indicated breeding pairs and total geese in mid-April to estimate breeding population trends of RMP Canada geese in 2008. A total of seven active nests, 201 indicated pairs, and 800 total geese were counted (Tables 3 and 4). The Salmon River was not surveyed in 2005.

Trapping and Transplanting: No Canada geese were trapped or transplanted in the Salmon Region during this reporting period.

SANDHILL CRANE

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 1997).

Current Goals

1. Maintain current sandhill crane breeding populations and their distribution.

2. Maintain current sandhill crane migrations through Idaho.

3. Meet the demand for non-consumptive uses.

The RMP sandhill crane population continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continuing landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios. The description, season framework, and bag and possession limits can be found in Appendix A.

Background and Management Philosophy: RMP greater sandhill cranes have been damaging crops in eastern Idaho for decades. Early season crop damage occurs primarily in spring and summer, but the most significant sandhill crane crop damage occurs during late summer and early fall when sandhill cranes begin staging for fall migration. Fields damaged are those generally closest to night roosts and they are damaged repeatedly year after year.

In 1996, the Commission adopted rules that changed the classification of sandhill cranes from migratory nongame birds to migratory game birds and directed the Department to obtain Pacific Flyway Council and USFWS approval for an experimental controlled hunt in three areas. The Council approved a 20-bird harvest allocation for Idaho and controlled hunts by "sportsmen only" using a random method of issuing permits. The Commission subsequently adopted rules establishing controlled hunts in three areas (Grays Lake Outlet area in Bonneville County, Blackfoot Reservoir area in Caribou County, and the Teton River area in Teton County) with a total of 30 permits.

In 1997, the Commission adopted rules establishing seven controlled hunts in the same hunt areas created in 1996 (Grays Lake Outlet, three hunts, 15 permits in each; Blackfoot Reservoir area, three hunts, 40 permits in each; Teton River, one hunt, 50 permits). The 215 permits were expected to harvest 148 sandhill cranes, the entire Idaho harvest allocation authorized by the Pacific Flyway and USFWS.

In 1998, the Commission adopted rules that abolished the hunt in the Grays Lake Outlet area, created seven hunts with 30 permits each in the Blackfoot Reservoir area and enlarged the area to include new damage complaints, and reauthorized the Teton County hunt with 50 permits. The 260 permits were expected to harvest 170 sandhill cranes, the entire allocation for Idaho.

In 1999, the Commission authorized seven hunts with 47 permits each in the Blackfoot Reservoir area and enlarged it again to include a portion of Bear Lake County (Hunt Area 1). They also reauthorized the Teton County hunt with 75 permits (Hunt Area 2), and created one new hunt with 50 permits in a portion of Fremont County (Hunt Area 3). Of the 454 permits available to

hunters in 1999, 121 permits were left after the drawing, and an unknown number of permits were purchased as leftovers.

In 2000, the Commission reauthorized seven hunts with 50 permits each in Hunt Area 1, two hunts with 50 permits each in Hunt Area 2, and two hunts with 50 permits each in Hunt Area 3. There were 550 permits available in 2000; 299 permits were left after the drawing, and only 95 of those were purchased as leftovers.

In 2001, the Commission authorized five hunts in Hunt Area 1 including two hunts with 100 permits each and three hunts with 50 permits each. They also reauthorized two hunts with 50 permits each in Hunt Area 2 and two hunts with 50 permits each in Hunt Area 3. Of the 550 permits available in 2001, 255 permits were left over. Due to the decline of hunters in 2000 and 2001, the Commission authorized the sale of leftover permits to include those who had already drawn a permit and raised the season limit per hunter from one crane to nine cranes with a limit of two per day. As a result, 215 of the 255 leftover permits were purchased in 2001.

In 2002, the Commission enlarged Hunt Area 1 to include all of Bear Lake County and authorized two hunts with 80 permits each, two hunts with 35 permits each, and one hunt with 33 permits. The Commission enlarged Hunt Area 2 to include all of Teton County and authorized one hunt with 40 permits and one hunt with 35 permits. They also enlarged Hunt Area 3 to include all of Fremont County and authorized one hunt with 40 permits and one hunt with 35 permits. Of the 413 permits available in 2002, 381 were purchased. The daily limit per hunter was two cranes with a season limit of nine cranes.

In 2003, the Commission authorized five hunts in Hunt Area 1 including one hunt with 65 permits, one hunt with 60 permits, one hunt with 35 permits, and two hunts with 25 permits each. They also authorized two hunts with 30 permits each in Hunt Area 2 and two hunts with 30 permits each in Hunt Area 3. Of the 330 permits available in 2003, 265 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

In 2004, the Commission authorized one hunt in Hunt Area 1 with 165 permits. They also authorized two hunts with 24 permits each in Hunt Area 2 and two hunts with 24 permits each in Hunt Area 3. Of the 261 permits available in 2004, 214 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

In 2005, the Commission authorized one hunt in Hunt Area 1 with 300 permits, two hunts in Area 2 with 35 permits each, and two hunts in Area 3 with 35 permits each. Of the 440 available permits, 369 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

In 2006, the Commission authorized one hunt in Hunt Area 1 with 300 permits, two hunts in Area 2 with 50 permits each, and two hunts in Area 3 with 50 permits each. Of the 500 permits available, 398 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

In 2007, the Commission authorized one hunt in Hunt Area 1 with 300 permits, two hunts in Area 2 with 50 permits each, and two hunts in Area 3 with 40 permits each. In addition, the Commission authorized two hunts each in new Hunt Areas 4 and 5 (Bonneville County and Jefferson County, respectively), with 10 permits each. Of the 500 permits available, 452 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

In 2008, the Commission authorized one hunt in Hunt Area 1 with 300 permits, two hunts in Area 2 with 50 permits each, two hunts in Area 3 with 50 permits each, two hunts in Area 4 with 20 permits each, and two hunts in Area 5 with 20 permits each. Of the 580 permits available, only 407 tags were purchased. The limit remained two cranes per day per hunter with a season limit of nine cranes.

Regional Reports

Southwest (McCall) Region

Breeding pairs of sandhill cranes occur in the Lake Cascade, North Fork Payette River, and Little Salmon River drainages. No management data are collected on these birds.

Magic Valley Region

Population Surveys: Ground surveys were conducted on 18 September 2008 in the Silver Creek Valley and around Carey Lake. Pre-count reports from the Camas Prairie indicated that there were no cranes; therefore, that survey was not completed. Three hundred ninety-seven cranes were observed; all in the Silver Creek survey area (Table 5).

Southeast Region

Population Surveys: Greater sandhill cranes nest in several areas in the Southeast Region. Large concentrations of cranes are present in several areas in the eastern part of the region prior to migration in the fall.

Department personnel in 1995-1997 began collecting data at Chesterfield, Blackfoot Reservoir, and Grays Lake to provide information on sandhill crane abundance, juvenile recruitment rates in fall pre-migration flocks, arrival dates of sub-adults and family groups into pre-migration areas, and whooping crane use periods. These same data were collected for the Bear River Valley between Soda Springs and Montpelier beginning in 1996. Beginning in 1996, USFWS personnel collected the sandhill crane information at Grays Lake NWR for the Department. Personnel for the USFWS and a private contractor normally collected aerial survey information to determine total sandhill crane abundance during September in selected areas of the Southeast Region Table 5).

Harvest Characteristics: Harvest allocation and permit numbers (300) for 2008 were unchanged from 2007 levels (Table 6). An estimated 112 people hunted cranes and 90 birds were harvested,

77 (86%) of which were adults (Table 7). Hunters have not been required to comply with a mandatory check requirement since 1998.

Management Implications: Concerns expressed by grain producers during the mid-1990s prompted the Department to collect baseline information that could be used to identify strategies to reduce depredation. Chesterfield Reservoir, Blackfoot Reservoir, Bear River Valley, and Grays Lake were identified as primary sites due to a history of depredation concerns. However, sandhill cranes stage and use grain fields throughout the region including Marsh Valley, Malad Valley, Swan Lake/Oxford Slough area, Bear Lake Valley, American Falls Reservoir, and Thomas Fork Valley. Future ground surveys may need to be conducted in some or all of these areas.

Upper Snake Region

Population Surveys: Personnel for the USFWS and a private contractor collect aerial survey information to determine total sandhill crane abundance during September in selected areas of the Upper Snake Region (Table 5).

Harvest Characteristics: A mail-in survey with a follow-up telephone survey of non-respondents was used to estimate hunter participation and harvest of sandhill crane for each hunt (Table 6). Controlled hunt tags were increased by 10 for each hunt in 2008 resulting in an increase of 80 tags. Two hunts with 50 permits each were available for the Fremont County area and two hunts with 50 permits each were also available for the Teton County area. Two hunts with 20 permits each were available in Bonneville County and two hunts with 20 permits each were also available in Jefferson County.

Climatic Conditions: Winter 2007-2008 received average levels of precipitation according to historical averages; however, it was wetter than the previous 10-12 years. Summer 2008 received average levels of precipitation.

Depredation: The region received no sandhill depredation complaints during 2008.

Management Implications: Fall pre-migration staging area sandhill crane composition surveys were conducted in the Upper Snake Region for the first time in 1995. These baseline data were used to help identify strategies to reduce depredation concerns on pre-migration staging areas in the Fremont County area and the Teton County area. Two controlled hunts with a total of 100 permits were authorized in the Teton County area in 2008. Two controlled hunts with a total of 100 permits were also authorized for the Fremont County area in 2008. In addition, 80 permits were evenly split between Bonneville and Jefferson counties in 2008.

Salmon Region

Sandhill cranes occur as scattered breeding pairs in the Lemhi, Pahsimeroi, and Salmon River valleys from Salmon to Stanley. No management data are collected on these birds.

TRUMPETER SWAN

The trumpeter swan is included in the 1991-1995 Nongame Species Plan; the Department's goals and objectives are the same as those of the Pacific Flyway. The 1991-1995 WMP contains no goals for this species. Data for trumpeter swans are included in this report for the historical record.

Regional Reports

Magic Valley Region

In 1994, 1995, and 1996, a pair of trumpeter swans successfully nested at White Arrow Ponds north of Bliss in Gooding County. Since then, the trumpeter swans have made no attempt to nest at that site or attempts were brief and unsuccessful.

Successful nesting by trumpeter swans was also documented in 1995 and 1996 at the Department's Highway 46 Pond in Camas County. In 2002, a pair of trumpeter swans successfully nested and reared three juveniles on a private pond approximately six miles southeast of the Department's Highway 46 Pond.

During August 2006, Department staff found a pair of adult trumpeter swans with three cygnets on Spring Creek Reservoir in Camas County. No nesting trumpeters were documented in the region during 2007; however, a pair of adults was observed at Thorn Creek Reservoir by Department personnel on 23 August 2007. No nesting trumpeters were documented in the region during 2008.

Upper Snake Region

Aerial and ground surveys were conducted in Upper Snake Region to monitor nesting trumpeter swans and wetlands. During 2008, there were 10-11 occupied nesting territories and only four nesting pairs. No cygnets were observed.

TUNDRA SWAN

The Department's 1991-1995 WMP goals for the tundra swan are the same as those of the Pacific Flyway (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra swan is not classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

Regional Reports

Magic Valley Region

Tundra swans migrate through the region in spring and fall, and some winter on the Snake River, but none are known to nest in the region. The region does no monitoring of tundra swans.

Upper Snake Region

Tundra swans migrate through the region in spring and fall, and some winter on the North Fork Snake River and Teton River, but none are known to nest in the region. The region does no monitoring of tundra swans during summer. Counts are made incidental to other waterfowl during the mid-winter waterfowl count (Table 8) and the mid-winter tri-state trumpeter swan survey.

AMERICAN COOT

The Department's 1991-1995 WMP goals for the American coot are to 1) maintain the Idaho population, 2) increase the harvest, and 3) provide maximum recreational opportunity (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management emphasis. This is because the American coot is not an important game bird in Idaho and because it benefits indirectly from other wildlife management programs.

COMMON SNIPE

The Department's 1991-1995 WMP goals for the common snipe are to 1) maintain Idaho's common snipe population and 2) maintain the harvest (Connelly and Wackenhut 1990). However, during the reporting period, this species received little management attention. This is because the common snipe is not an important game bird in Idaho and because it benefits indirectly from other wildlife management programs.

PROGRESS REPORT
SURVEYS AND INVENTORIES

STATE:	Idaho	**JOB TITLE:**	Waterfowl Fall and Winter Surveys, Banding, and Harvest
PROJECT:	W-170-R-32		
SUBPROJECT:	1-7	**STUDY NAME:**	Upland Game and Waterfowl Population Status and Trends
STUDY:	II		
JOB:	3		

PERIOD COVERED: July 1, 2007 to June 30, 2008

JOB 3. WATERFOWL FALL AND WINTER SURVEYS, BANDING, AND HARVEST

ABSTRACT

Results of the mid-winter waterfowl population surveys conducted by regional personnel and results of harvest surveys are summarized and discussed. The 2007 mid-winter count for total ducks and total waterfowl was conducted. The 2007 count for total ducks and total waterfowl was up 63% and 50% from the 2006 count, respectively, but 10% below the 10-year average (1996-2006) for both. Harvest data from USFWS showed 2006 duck harvest up 8% and 2006 goose harvest up 5%. The Department conducted a separate waterfowl harvest survey for the 2006 season. These harvest data were similar to the USFWS goose harvest estimate but 13% higher than the USFWS duck harvest estimate. The Department conducted a survey to estimate the number of participants in the special youth hunt and estimated that 897 youth hunters participated in this two-day hunt.

YOUTH WATERFOWL HUNT

For the seventh year, USFWS offered all states the option of holding a two-day youth waterfowl hunt during the 2006-2007 season. Pacific Flyway states choosing the option were required to reduce their regular seasons by two days so as not to exceed the 107-day maximum length for migratory bird seasons. States were permitted to hold the hunt outside the regular season framework and regular-season limits applied. The Commission chose to take the option and selected 30 September-1 October for the hunt that was open to youth 12-15 years-of-age; it also chose full duck (including merganser), coot, and goose limits. The Department estimated that 897 youth hunters participated in this two-day hunt or about 25% of the total number of youth hunters.

STUDY OBJECTIVES

1. Determine production and trends of resident waterfowl.

2. Estimate waterfowl harvest, hunter participation, and hunter opinions.

3. Determine waterfowl movements, distribution, and survival rates.

PROCEDURES

1. Conduct fall and winter aerial counts of waterfowl.

2. Evaluate the usefulness of fall surveys and consider new techniques to assess waterfowl numbers.

3. Conduct a telephone survey of hunting license buyers.

4. Operate check stations or field checks.

5. Band waterfowl and monitor movements and survival rates.

Harvest data were collected and analyzed by the Bureau of Wildlife. Personnel stationed in the state's seven regions and one sub-region collected all other data.

DUCKS (ALL SPECIES)

Population Surveys

The mid-winter survey was conducted in 2008 (Table 8). The USFWS predicted a 2007 traditional area mallard breeding population of 8.3 million birds, which is up 14% from the 7.3 million bird estimate for 2006 (USFWS 2006).

Harvest Characteristics

Telephone Survey: The Department estimated the Idaho duck harvest for the 2007-2008 hunting season at 406,272 (Table 9), which is 228% above 2006 and 25% above the 2006 USFWS estimate.

Federal Migratory Game Bird Harvest Information Program (FMGBHIP): The Department entered the FMGBHIP in early 1996. The goal of the program is to obtain improved harvest estimates for all species. By federal mandate, states provide the USFWS with names and addresses of all migratory game bird hunters from which the USFWS draws samples of hunters to survey. Due to computer problems, the Department was not able to comply for the 1996-1997 season, and the USFWS was unable to estimate harvest using the FMGBHIP. The Department has complied fully with the USFWS's request for information every year since.

USFWS Hunter and Harvest Survey: The USFWS's preliminary estimate for the 2007-2008 duck harvest was 229,100, down 17.6% from the 2006 estimate.

Climatic Conditions

Winter 2007-2008 was colder and received more precipitation than normal in northern and eastern Idaho. The Magic Valley and Southwest regions reported normal conditions. As a

result, wintering conditions for waterfowl were normal in the south, but below normal in the north and east portions of the state.

Management Implications

The Department continued to meet its 1991-1995 WMP goals of reversing the decline in number of duck hunters and ducks harvested since duck numbers remained good, hunter waterfowl validations (stamps) sold remained nearly stable, and the FMGBHIP harvest estimates continued to be strong.

The 1987 Legislature approved a $5.00 ($6.50 with the vendor fee) migratory waterfowl stamp which hunters 17 years-of-age and older were required to buy beginning with the 1987-1988 hunting season. In October 1987, the Department initiated the HIP program funded by the revenue generated by this stamp; the upland game habitat stamp, which was also authorized in 1987; and the sale of associated artwork. The migratory waterfowl stamp was reauthorized by the 1995 Legislature with no change in fee. Waterfowl stamp and artwork monies were used to purchase wetlands and develop and improve wetlands on private and government property through the use of cooperative agreements. Over the long term, these projects will help to increase numbers of ducks passing through and wintering in Idaho; they will also increase Idaho's duck production and help to offset any reduced flights of ducks out of Canada. It must be noted, however, that improved habitat and increased duck production in Idaho can only help to "buffer" the effect of fewer Canadian ducks; Idaho will never be able to fully compensate for reduced flights of ducks out of Canada.

Between 1988 and 1998, $244,511 from the sale of state waterfowl stamp prints was paid to Ducks Unlimited to sponsor wetland development in Canada. The development of wetlands outside Idaho was mandated by state law. This money was used to sponsor the Keho Lake Project ($340,700) and Kanegawa Project ($74,200) in southern Alberta. Both projects have already been completed. As of 2006, the Department has contributed a total of over $500,000 to Ducks Unlimited projects in Alberta, Canada.

During the 2000 legislative session, the Department sponsored legislation that ended the habitat stamp program. The cost of these programs was integrated into the general hunting license. Further funding of Canadian waterfowl projects will be with license funding at a level that will be determined annually.

Future management of ducks in Idaho will focus on improving habitat to attract more migrating and wintering birds; increasing local duck production; monitoring local production, especially on WMAs; and adopting federal harvest regulations designed to take advantage of increasing duck populations.

GEESE (ALL SPECIES)

Population Surveys

The mid-winter survey was conducted in 2008 and over 90% of the survey area was covered (Table 10).

Harvest Characteristics

Telephone Survey: The Department used a mail-in/telephone survey to estimate goose harvest (Tables 11-13) in 2007-2008. The estimate for 2007-2008 was 86,031 (Table 13) or 13.9% above the estimate of 75,500 for 2006-2007.

FMGBHIP: The Department entered the FMGBHIP in early 1996. The goal of the program is to obtain improved harvest estimates for all species; by federal mandate, states provide USFWS with names and addresses of all migratory game bird hunters from which USFWS draws samples of hunters to survey. Due to computer problems, the Department was not able to comply for the 1996-1997 season and USFWS was unable to estimate harvest using the FMGBHIP. The Department has complied fully with the USFWS request for information every year since. The USFWS estimate for the 2007-2008 goose harvest was 40,754 or a 47.8% decline from the estimate of 77,678 for 2006-2007 (Table 14).

Climatic Conditions

Winter 2007-2008 was colder and received more precipitation than normal in northern and eastern Idaho. The Magic Valley and Southwest regions reported normal conditions. As a result, wintering conditions for waterfowl were normal in the south, but below normal in the north and east portions of the state.

Management Implications

The Department continued to meet its 1991-1995 WMP goals for total harvest and harvest per hunter per season; however, the total days hunted statewide were below the WMP goal. Goose numbers remained good, and hunter validations (stamps) sold remained up from the 1990 level.

The Department's ongoing HIP program (discussed previously in the duck section) will continue to improve wetland habitat for Canada geese. Future management will be directed toward improving habitat through HIP to attract greater numbers of geese to migrate through and winter in Idaho. Habitat improvement will increase local production, and provide maximum hunting opportunity within the framework authorized by USFWS and within the amount allowable while still meeting local population objectives. Goose depredation problems are becoming significant in some urban areas and will require new strategies to manage these nuisance birds.

SANDHILL CRANE

The Department's goals and objectives for the sandhill crane are the same as those for the Pacific Flyway (Subcommittee on Rocky Mountain Greater Sandhill Cranes 1997).

The RMP sandhill crane populations continued to receive increased management emphasis during the reporting period in the Magic Valley, Southeast, and Upper Snake regions because of continuing landowner concerns over crop damage. Surveys of RMP greater sandhill cranes in these three regions were initiated in 1995 to document total sandhill crane numbers, arrival dates, distribution, and age ratios.

TRUMPETER SWAN

In 2003, the Department wrote a study plan for a three-year project to evaluate the effectiveness of cygnet translocation to increase winter distribution of trumpeter swans. The project included a graduate student project at the University of Idaho. The birds will be monitored until at least 2008 to determine success of this effort.

The Department also continued assisting in monitoring swan movements and distribution across Idaho. An implementation plan for the 1998 Pacific Flyway Trumpeter Swan Management Plan was completed in July 2002. Annual progress reports on this plan are available at the Pacific flyway website at www.pacificflyway.org

TUNDRA SWAN

The Department's 1991-1995 WMP goals for tundra swan are to (1) maintain current migrations through Idaho and (2) meet the demand for non-consumptive use. However, during the reporting period, this species received little management emphasis in Idaho. This is because the tundra swan is not classified by the state as a game bird and the species benefits indirectly from other wildlife management programs.

AMERICAN COOT

The Department's 1991-1995 WMP goals for American coot are to (1) maintain Idaho's population, (2) increase the harvest, and (3) provide maximum recreational opportunity. However, during the reporting period, this species received little management emphasis. This is because the American coot is not an important game bird in Idaho and because it benefits indirectly from other wildlife management programs.

COMMON SNIPE

The Department's 1991-1995 WMP goals for common snipe are to (1) maintain Idaho's common snipe population and (2) maintain the harvest. However, during the reporting period, this species received little management attention. This is because the common snipe is not an important game bird in Idaho and because it benefits indirectly from other wildlife management programs.

LITERATURE CITED

Connelly, J., and P. Wackenhut. 1990. Waterfowl Management Plan, 1991-1995. Unpublished Report, Idaho Department of Fish and Game, Boise, Idaho, USA.

Subcommittee on Rocky Mountain Greater Sandhill Cranes. 2007. Management plan of the Pacific and Central Flyways for the Rocky Mountain population of greater sandhill cranes. [Joint] Subcommittees, Rocky Mountain Population Greater Sandhill Cranes, Pacific Flyway Study Committee, Central Flyway Webless Migratory Game Bird Tech. Committee [c/o USFWS, MBMO], Portland, Oregon, USA.

U.S. Fish and Wildlife Service. 2006. Waterfowl population status, 2007. U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Laurel, Maryland, USA.

Figure 1. Distribution of Pacific and Rocky Mountain Canada geese populations within Idaho.

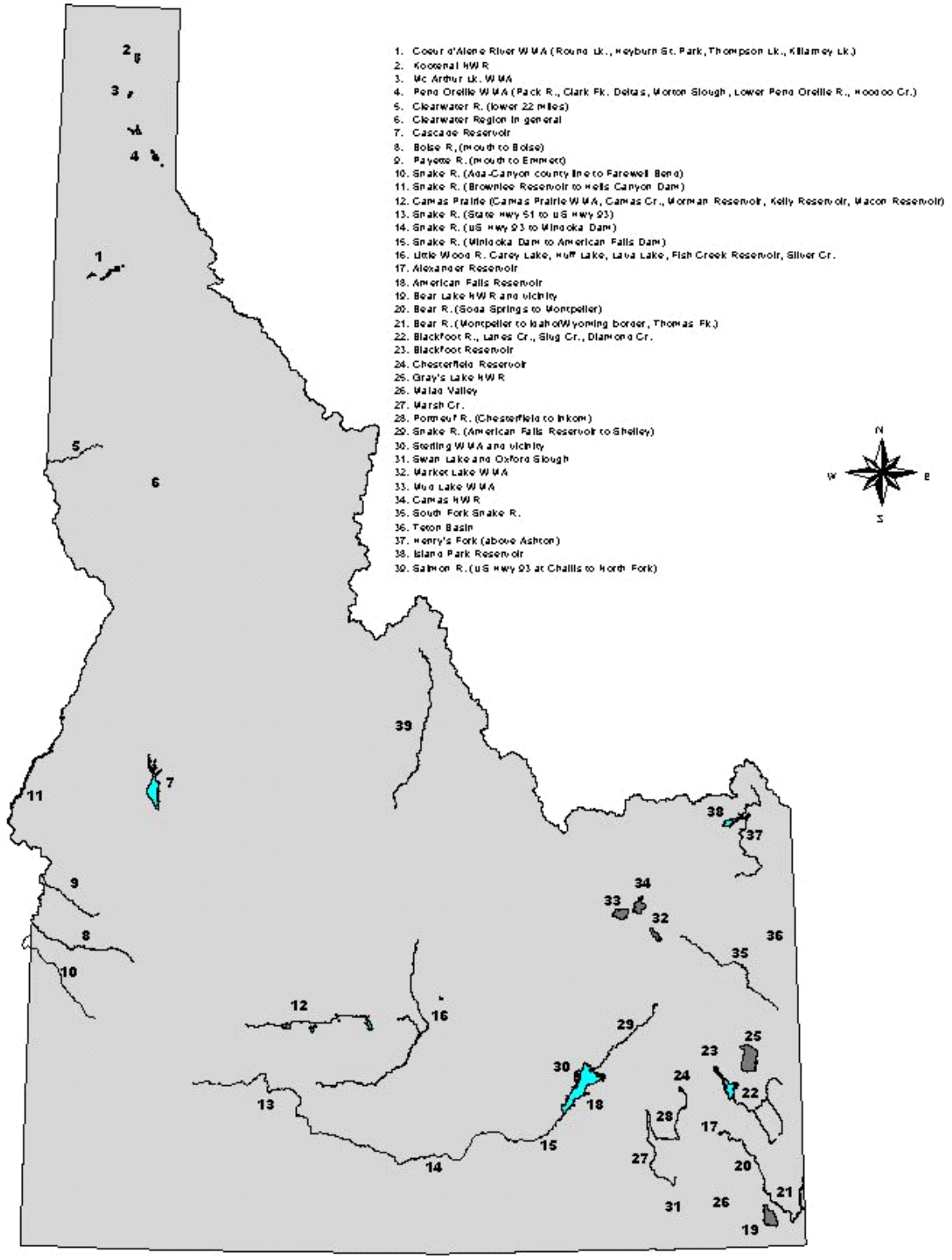


Figure 2. Idaho Canada goose nesting survey areas.

Table 1. Ducks banded in Idaho by Department and USFWS personnel, 2008.

Species	Panhandle	Clearwater	Southwest	Magic Valley	Southeast	Upper Snake	Salmon	Total
Mallard	1,315	0	40	0	0	309	0	1,664
Wood Duck	322	0	0	0	0	0	0	322
Ring-necked	0	0	0	0	0	0	0	0
Redhead	5	0	0	0	0	2	0	7
Northern Pintail	1	0	0	0	0	2	0	3
American Widgeon	0	0	0	0	0	0	0	0
Teal	15	0	0	0	0	7	0	22
Gadwall	0	0	0	0	0	0	0	0
Northern Shoveler	0	0	0	0	0	0	0	0
Lesser Scaup	1	0	0	0	0	0	0	1
Hooded Merganser	5	0	0	0	0	0	0	5
Total	1,664	0	40	0	0	320	0	1,733

Table 2. Mallards banded in Idaho by Department and USFWS personnel since 1991.

IDFG Region	1991-2003	2004	2005	2006	2007	2008	Total
Panhandle	8,539	1,992	1,823	1,081	1,392	1,315	16,142
Kootenai NWR	1,365	0	0	0	0	0	1,365
Clearwater	98	0	0	0	0	0	98
Southwest	2,348	0	0	0	0	40	2,388
Deer Flat NWR	3,321	596	440	509	144	216	5,226
Magic Valley	1,226	0	0	0	0	0	1,226
Minidoka NWR	822	0	0	0	0	0	822
Southeast	31	0	0	0	0	0	31
Grays Lake NWR	7,236	0	0	0	0	0	7,236
Bear Lake NWR	3,460	0	0	0	0	0	3,460
Upper Snake	1,257	0	0	77	147	309	1,790
Camas NWR	775	0	0	0	0	0	775
Tribal	1,554	0	0	0	0	0	1,554
Salmon	0	0	0	0	0	0	0
Total	32,032	2,588	2,263	1,667	1,683	1,880	42,103

Table 3. Idaho goose population survey areas (RMP in gray), 2008 counts, three-year averages, and management objectives.

Region/Survey Area[b]	2008 Counts			Average 2005-2007			Objectives[a] (min.)		
	Nests	Pairs	Total	Nests	Pairs	Total	Nests	Pairs	Total
Panhandle									
1 Coeur d'Alene River WMA	60		60	77		77	35		35
2 Boundary Creek WMA	10		10	5		5			
3 McArthur WMA	35		35	35		35	70		70
4 Pend Oreille WMA	107		107	87		87	85		85
Clearwater									
5 Clearwater River	53		117	[c]36				40	100
6 Remainder of Region (discontinued)									
Southwest									
7 Cascade Reservoir					81	200		100	225
8 Boise River		86	204		[d]56	[d]244		100	
9 Payette River		125	293		128	318		200	450
10 Snake River South		584	1,150		618	1,332		700	1,800
11 Snake River North					ND	ND		50	100
Magic Valley									
12 Camas Prairie					[e]174	[e]307		285	700
13 Snake River (Hwy 51 to Hwy 93)					[e]30	[e]73		175	350
14 Snake River (Hwy 93 to Minidoka)					[e]29	[e]56		60	120
15 Snake River (Minidoka to American Falls)					[e]82	[e]184		120	275
16 Little Wood River									
Southeast									
17 Alexander Reservoir					[d]8	[d]22			
18 American Falls Reservoir		13	30		20	100			
19 Bear Lake NWR					419	878		640	1,400
20 Bear River(Soda Springs-Montpelier)					37	89			
21 Bear River(Montpelier-ID/WY border)					[c]67	[c]239			
22 Blackfoot Reservoir-(upper)					[f]28	[f]68		150	375
23 Blackfoot Reservoir					[c]40	[c]151			
24 Chesterfield Reservoir		5	16		3	14			
25 Grays Lake NWR					55	108		350	840
26 Malad Valley		26	60		16	31			
27 Marsh Creek		70	189		40	120		190	380
28 Portneuf River(Chesterfield-Inkom)		60	171		37	119			
29 Snake River(American Falls-Shelley)		36	108		23	82			
30 Sterling WMA		7	18		13	66			
31 Swan Lake and Oxford Slough		52	254		27	87		100	250
Upper Snake									
32 Market Lake WMA		34	68		54	125		85	
33 Mud Lake WMA		66	138		66	112		95	
34 Camas NWR		30	69		29	44		130	
35 South Fork Snake River		51	105		24	52			
36 Teton Basin		70	162		27	62		90	
37 North Fork Snake River		3	48		8	37		15	
38 Island Park Reservoir		18	541		92	1,041		60	
Salmon									
39 Salmon River	7	201	800		[c]298	[c]864		175	

[a] Connelly and Wackenhut (1990).
[b] See Figure 2.
[c] Two-year average.
[d] 2007 data. No surveys were conducted in 2005 and 2006.
[e] 2006 data. No surveys were conducted in 2005 and 2007.
[f] 2005 data. No surveys were conducted in 2006 and 2007.

Table 4. Active nests, indicated pairs, and total number of Canada geese (RMP in gray) in Idaho for the past five years.

Survey	2004			2005			2006			2007			2008		
Area[a]	N	P	T	N	P	T	N	P	T	N	P	T	N	P	T
Region 1															
1	92			49			91			91			60		60
2										8			10		10
3	61			30			46			29			35		35
4	175			98			39			123			107		107
Region 2															
5	25						29			43			53		117
6	42														
Region 3															
7				89	190		35	58		119	351				
8										56	244		86	204	
9		182	454	114	237		117	274		154	443		125	293	
10		660	1,587	562	1,145		741	1,484		551	1,366		584	1,150	
11															
Region 4															
12		292	573				174	307							
13		195	409				30	73							
14		77	149				29	56							
15		51	113				82	184							
16															
Region 5															
17										8	22				
18		10	16	15	21		15	21		30	259		13	30	
19		177	320	398	905		669	1,344		190	386				
20		13	27	24	42		25	58		61	166				
21		32	58	77	132		57	107							
22		78	181	28	68										
23							42	118		38	184				
24		3	4	4	6		1	2		4	35		5	16	
25		81	128	40	68		105	216		21	41				
26		4	41	21	42		24	35		4	16		26	60	
27		80	207	62	193		45	114		14	53		70	189	
28		63	159	88	179		16	28		7	150		60	171	
29		84	146	23	67		25	41		22	139		36	108	
30		20	39	10	17		19	34		9	146		7	18	
31		15	31	44	118		18	30		19	114		52	254	
Region 6															
32		60	128	37	65		67	206		57	104		34	68	
33		107	166	65	102		57	109		75	126		66	138	
34		87	148	28	49		22	45		38	39		30	69	
35		19	66	29	61		8	26		35	68		51	105	
36		56	92	21	33		27	93		33	60		70	162	
37		6	28	14	48		7	60		3	4		3	48	
38		175	358	175	2,220		67	427		33	475		18	541	
Region 7															
39		292	820	N/A	N/A		333	925		263	803		7 201	800	

[a] See Figure 2. N = # of active nests; P = # of indicated pairs; T = total # of geese.

Table 5. September aerial and ground-based counts of RMP greater sandhill cranes in eastern Idaho for the past eight years.

Region/Area	2001	2002	2003	2004	2005	2006	2007	2008
Magic Valley								
Camas Prairie	137	0	0	0	0	[a]	2	[b]
Carey Lake	6	2	0	0	0	[a]	0	0
Silver Creek	385	327	466	240	567	[a]	316	397
Southeast								
American Falls Reservoir	104	66	168	96	67	[a]	89	124
Bear Lake Valley	217	253	401	312	437	[a]	318	301
Bear River Valley	598	790	1,188	634	1,001	[a]	1,690	321
Blackfoot Reservoir	698	441	773	228	467	[a]	284	752
Chesterfield Reservoir	170	86	38	7	138	[a]	27	111
Grays Lake	1,734	1,467	1,430	1,728	1,384	[a]	1,943	41
Marsh Valley	192	277	202	120	245	[a]	127	304
Oxford Slough	143	242	93	220	145	[a]	373	152
Upper Snake								
Ashton-St. Anthony	1,485	1,876	1,180	1,337	716		807	798
Camas NWR	257	331	347	381	532	313	632	475
Henry's Lake Flats	31	102	21	58	35	[a]	8	3
Island Park Reservoir	0	13	2	0	2	[a]	0	8
Kilgore	0	0	0	0	0	[a]	0	0
Market Lake WMA	2	2	0	1	0	0	0	0
Mud Lake WMA	94	172	371	164	100	291	364	94
Teton Basin	907	1,504	1,543	1,626	1,834	[a]	1,477	1,591
Total	7,160	7,951	8,223	7,152	7,670	604	8,457	5,472

[a] Aerial counts not conducted in 2006 due to aircraft mechanical problems.

[b] Pre-count reports from the Camas Prairie indicated that there were no cranes; therefore, the survey was not completed

Table 6. Sandhill crane permit levels, estimated hunter participation, and harvest based on mail and telephone surveys for the past six years.

Hunt Area	2003	2004	2005	2006	2007	2008
Bear Lake-Caribou County						
Permits available	210	165	300	300	300	300
Tags issued	152	124	243	224	261	221
Total hunters	107	106	114	119	223	112
Days hunted	169	218	313	293	336	230
% Success[a]	49	73	45	59	48	44
Harvest	74	91	109	132	117	90
Bonneville County[b]						
Permits available					20	40
Tags issued					17	6
Total hunters					8	4
Days hunted					17	8
% Success[a]					25	25
Harvest					2	1
Fremont County						
Permits available	60	48	70	100	80	100
Tags issued	57	44	66	82	78	71
Total hunters	53	38	57	66	63	62
Days hunted	93	76	101	121	103	98
% Success[a]	63	45	70	52	60	55
Harvest	36	20	46	43	40	34
Jefferson County						
Tags available					20	40
Tags issued					13	26
Total hunters					8	20
Days hunted					18	20
% Success[a]					75	61
Harvest					8	13
Teton County						
Permits available	60	48	70	100	80	100
Tags issued	56	46	60	92	83	73
Total hunters	47	41	45	57	67	53
Days hunted	63	60	90	101	84	109
% Success[a]	64	70	55	66	58	65
Harvest	36	32	33	61	45	47
State Total						
Permits available	330	261	440	500	500	580
Tags issued	265	214	369	398	452	397
Total hunters	207	185	216	241	293	238
Days hunted	325	354	504	515	558	465
% Success[a]	55	67	51	59	52	51
Harvest	146	143	188	235	211	185

[a] Success rate shown is harvest per permit issued.

[b] Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

Table 7. Age composition of sandhill crane harvest based on mail and telephone surveys for the past six years.

Hunt Area	2003	2004	2005	2006	2007	2008
Bear Lake-Caribou County						
Juvenile		16	24	26	18	13
Adult		75	85	105	99	77
Unknown	74					
Bonneville County[b]						
Juvenile					0	1
Adult					2	0
Unknown						
Fremont County						
Juvenile	7	5	9	5	2	6
Adult	29	15	37	38	43	27
Unknown	0[a]	1[a]	0[a]	0[a]		
Jefferson County						
Juvenile					0	0
Adult					8	13
Unknown						
Teton County						
Juvenile	3	6	2	19	7	7
Adult	33	26	31	42	33	40
Unknown	0[a]	0[a]	0[a]	0[a]		

[a] Birds not classified as adult were assumed to be juvenile.

[b] Data shown is for Hunt # 9506, 1-7 September. No hunters from Hunt # 9507, 8-15 September, responded to the survey.

Table 8. Birds counted during the mid-winter waterfowl survey, 1997-2008. No count in 2004.

Species	1997	1998	1999	2000	2001[a]	2002	2003[b]	2005[c]	2006[d]	2007	1997-2007 10-yr. avg.	2008	% Change from Previous year	% Change from 10-yr. avg.
Mallard	140,230	304,126	284,670	261,425	106,516	168,844	108,034	164,425	103,467	207,741	182,415	142,700	-31	-23
Gadwall	191	279	186	1,058	45	261	602	599	894	552	457	296	-46	-37
Widgeon	3,463	2,130	3,686	4,164	1,189	1,412	6,900	9,665	5,067	3,416	4,186	4,139	21	1
Green-winged Teal	126	55	118	202	142	249	363	402	301	134	218	108	-19	-48
Blue-winged/ Cinnamon Teal	0	0	0	0	0	12	0	0	50	0	7	0	0	-100
Shoveler	151	31	271	88	1	17	25	183	7	44	86	49	11	-40
Pintail	2,150	362	1,649	405	1,696	179	49	121	252	124	763	300	142	-57
Wood duck	157	314	277	290	38	503	55	213	336	580	243	411	-29	49
Redhead	16,731	8,209	23,589	17,643	12,750	35,993	21,324	22,463	15,909	13,111	19,401	21,266	62	13
Canvasback	168	19	323	165	0	333	20	57	312	1,029	155	441	-57	82
Scaup	3,498	2,342	5,275	3,398	7,436	12,313	9,900	5,556	4,114	10,185	5,981	6,262	-39	-2
Ringneck	566	353	734	1,232	282	4,445	3,411	1,060	4,281	3,816	1,818	420	-89	-79
Goldeneye	10,822	14,090	21,731	19,674	11,921	15,219	12,018	18,214	21,473	22,035	16,129	30,837	40	84
Bufflehead	935	1,197	3,141	654	752	1,193	763	1,080	1,045	949	1,196	1,012	7	-14
Ruddy duck	50	52	225	13	0	7	12	6	2	7	41	2	-71	-95
Merganser	2,760	3,835	3,418	3,952	1,732	2,792	1,571	1,103	1,196	413	2,484	855	107	-62
Unidentified ducks	23,154	3,894	13,667	752	324	835	225	260	14,922	17,831	6,448	12,353	-31	63
Total ducks	207,149	343,286	364,959	317,115	144,824	246,609	165,272	225,407	173,628	281,967	242,028	221,451	-21	-10
Snow goose	1	18	4	0	0	1	0	1	0	3	3	0	-100	-100
Ross'	0	0	1	0	0	0	0	2	0	0	0	0	0	-100
Canada goose	41,433	58,430	66,384	37,961	39,474	29,374	43,489	53,506	39,078	44,912	45,459	44,570	-1	-2
Lesser Canada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cackling goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White-front	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Total geese	41,435	58,448	66,389	37,962	39,474	29,375	43,489	53,509	39,078	44,915	45,462	44,570	-1	-2
Tundra swan	154	85	110	220	174	205	178	384	243	615	195	352	-43	49
Trumpeter swan	0	0	0	139	0	1,783	1,730	0	2,016	2,922	630	2,614	-11	204
Unidentified swan[e]	1,411	1,283	1,474	1,940	201	5	150	454	333	0	806	178	178	-75
Coot	14,665	15,324	20,712	38,253	25,763	33,285	16,042	5,325	21,473	24,639	21,205	37,807	53	75
Total waterfowl	264,814	418,426	453,644	395,629	210,436	311,262	226,861	285,079	236,771	355,058	310,325	306,972	-14	-2

[a] About 1/3 of the state's winter habitat was not counted in 2001 because of a fatal aircraft crash and subsequent flying moratorium.
[b] About 15% of the state's winter habitat was not counted in 2003 because of inclement weather in Magic Valley Region.
[c] About 28% of the state's winter habitat was not counted in 2005 because of inclement weather in Upper Snake Region.
[d] About 10% of the state's winter habitat was not counted in 2006 because of inclement weather in Panhandle Region.
[e] Primarily trumpeter swans 1995-2000.

Table 9. Estimated statewide harvest of ducks obtained from the Department telephone survey, 1988-2007.

Year[a]	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days Hunted	Days hunted per hunter per year
1988	4.6	154,400 ± 21,700	9.1	17,000 ± 1,100	111,100 ± 9,300	6.5
1989	3.0	147,000 ± 24,300	8.9	16,500 ± 1,400	116,700 ± 11,500	7.1
1990	3.0	157,800 ± 22,600	9.6	16,400 ± 1,300	120,800 ± 9,800	7.4
1991	4.0	181,500 ± 25,400	10.5	17,300 ± 1,200	156,000 ± 13,000	9.0
1992	2.5	210,700 ± 36,300	11.7	18,000 ± 1,700	145,100 ± 14,300	8.1
1993[b,c]	2.5[d]	252,100[b]	13.4	18,800[b]	217,400[b]	11.6
1994[b,c]	5.3	300,300 ± 23,400	15.6	19,400 ± 4,000	243,900 ± 16,200	12.6
1995[c]	3.9[d]	416,300 ± 33,300	17.9±1.4[e]	23,300 ± 4,000	309,400 ± 33,500	13.3 ±.7[e]
2002	4.4[f]	233,500	12.3	19,000	170,000	9.0
2003	4.0[g]	320,200	14.4	22,200	200,700	9.0
2004	4.9[h]	264,900	12.5	21,100	178,500	8.4
2005	5.3[i]	322,100	16.2	19,900	184,000	9.2
2006	5.0[j]	317,800	15.2	20,925	171,700	8.2
2007	4.4[k]	406,272	19.6	20,758	203,845	9.8

[a] No harvest estimates for 1996-2001 because the survey was not conducted.

[b] Confidence intervals not available.

[c] Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

[d] Approximate.

[e] 95% confidence interval.

[f] 839 duck hunters were contacted or about 4.4% of the estimated 19,000 duck hunters.

[g] 887 duck hunters were contacted or about 4.0% of the estimated 22,200 duck hunters.

[h] 1,042 duck hunters were contacted or about 4.9% of the estimated 21,100 duck hunters.

[i] 1,050 duck hunters were contacted or about 5.3% of the estimated 19,900 duck hunters.

[j] 1,050 duck hunters were contacted or about 5.0% of the estimated 20,925 duck hunters.

[k] 918 duck hunters were contacted or about 4.4% of the estimated 20,758 duck hunters.

Table 10. Canada geese counted in Idaho during the mid-winter survey by survey area, 1997-2008. No count in 2004.

Area[a]	1997	1998	1999	2000	2001[b]	2002	2003[b]	2005[b]	2006[b]	2007	2008
Survey area #1	1,386	817	843	1,331		839	1,730		1,021	182	68
Survey area #2	0	0	0	0		0	0		0	0	0
Survey area #3	0	28	37	0		0	0		0	1,588	1,934
Survey area #4	0	0	0	0		0	0		0	0	0
Survey area #5	17,318	14,891	29,310	5,720	18,172	9,233	15,662	15,709	16,617	15,300	8,324
Survey area #6	974	2,425	314	25		153		47	507	52	278
Survey area #7	4,014	3,861	4,453	604		2,273	493	666	2,983	3,724	2,822
Survey area #7A	4,438	4,717	3,280	702		2,144		1,678	2,259	1,747	1,769
Survey area #7B	2,652	2,953	1,261	278		1,413		1,522	775	318	8,208
Survey area #8A	3,362	2,610	14,075	5,080	12,710	2,190	5,423	7,856	4,397	3,215	3,365
Survey area #8B	2,479	4,575	4,730	1,029	4,129	551	4,479	3,817	2,906	2,482	5,766
Survey area #9	2,314	5,639	3,366	7,498	1,838	3,499	1,850	4,287	6,516	12,453	2,803
New Unit – Powell											3,760
Survey area #10	1,189	14,519	4,309	14,130	1,212	6,029	13,540	16,893	512	5,060	2,663
Survey area #11	1,307	1,395	406	1,560	1,413	1,050	312	1,034	585	561	2,810
Total	*41,433*	*58,430*	*66,384*	*37,957*	*39,474*	*29,374*	*43,489*	*53,509*	*39,078*	*44,912*	*44,570*
Rocky Mountain Population[c]	24,116	22,878	33,784	7,778	18,172	12,369	17,392	17,434	20,404	18,869	12,373
Percent	58	39	51	21	46	42	40	33	52	42	28
Pacific Population[c]	17,317	35,552	32,600	30,184	21,302	17,005	26,097	36,075	[b]18,674	27,813	32,197
Percent	42	61	49	79	54	58	60	67	48	58	72
Pacific Population Plan Unit 2[d] (south)	14,821	19,638	27,885	14,494	18,677	9,926	12,245	18,128	17,577	22,192	26,724
Pacific Population Plan Unit 4[d] (north)	2,496	15,914	4,715	15,690	2,625	7,079	13,852	17,927	[b]1,097	5,621	5,473

[a] Survey Areas are as follows: #1 = South Fork Snake River to Palisades Reservoir, Teton River, Buffalo River, Island Park Reservoir, North Fork (Henrys Fork) of the Snake River and tributaries; #2 = Market Lake WMA, Roberts Slough; #3 = Mud Lake WMA, Camas Creek, Independent Canal; #4 = Camas National Wildlife Refuge; #5 = American Falls Reservoir, Snake River from Massacre Rocks to Blackfoot, Clear Creek, Spring Creek; #6 = Minidoka National Wildlife Refuge; #7 = Hagerman WMA; #7A = Snake River from Massacre Rocks to U.S. Hwy. 93; #7B = Snake River from U.S. Hwy. 93 to State Hwy. 51; #8A = Snake River from State Hwy. 51 to the Ada-Canyon County line (except the Deer Flat National Wildlife Refuge portion), C.J. Strike WMA, Payette River, Boise River; #8B = Deer Flat National Wildlife Refuge portion of the Snake River (Ada-Canyon County line to Farewell Bend); #9 = Deer Flat National Wildlife Refuge (Lake Lowell only); #10 = Pend Oreille River, Clark Fork River, Pend Oreille Lake, Coeur d'Alene Lake, Coeur d'Alene River ; #11 = Lower Clearwater River, Mann's Lake.

[b] Survey incomplete. See USFWS "Idaho midwinter waterfowl count report" for details.

[c] Rocky Mountain Population includes Survey Areas 1 through 6 and 7A; Pacific Population includes Survey Areas 7, 7B, and 8A through 11.

[d] Pacific Population Canada Goose Management Plan Units, Pacific Flyway. Pacific Population Plan Unit 2 includes Survey Areas 7, 7B, 8A, 8B, and 9. Pacific Population Plan Unit 4 includes Survey Areas 10 and 11.

Table 11. Estimated harvest of Canada geese from the Pacific Population (west of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2007.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	19,700 ± 5,300	5,800 ± 700	45,800 ± 5,500
1989	3.0	20,900 ± 5,900	6,600 ± 900	50,100 ± 8,500
1990	3.0	27,300 ± 8,300	5,300 ± 800	43,900 ± 6,800
1991	4.0	42,700 ± 19,300	5,300 ± 700	52,700 ± 7,300
1992	2.5	40,900 ± 14,200	8,100 ± 1,200	67, 500 ± 10,500
1993[a]	2.5	43,000[b,c]	10,400[c]	88,700[c]
1994[a]	5.5	73,000[c]	[c]	[c]
1995[a]	3.9[c]	64,700 ± 8,500	15,300 ± 3,500	140,000 ± [c]
1996[d]				
1997[d]				
1998[d]				
1999[d]				
2000[d]				
2001[d]				
2002	4.4[e]	24,500[c,f]	8,500[c]	75,700[c]
2003	3.3[g]	59,600	9,800	85,100
2004	4.9[h]	37,900	8,800	66,000
2005	5.3[i]	39,700	8,800	72,900
2006	5.0[j]	48,555	9,600	71,000
2007	4.4[k]	49,940	7,878	65,766

[a] Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

[b] Rough estimate.

[c] Data or confidence intervals not available. Other years show 95% confidence interval.

[d] No harvest estimate; survey not conducted.

[e] 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

[f] The proportion of PP geese in the Magic Valley was estimated to be 67%.

[g] 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters. Beginning in 2003, hunters were specifically asked whether they were hunting in the Pacific or RMP population zones.

[h] 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

[i] 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

[j] 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

[k] 601 hunters were contacted or about 4.4% of the estimated 13,510 goose hunters.

Table 12. Estimated harvest of Canada geese from the Rocky Mountain Population (east of U.S. Hwy 93) obtained from the Department telephone survey, 1988-2007.

Year	% of license buyers sampled	Harvest	Hunters	Days hunted
1988	4.6	18,600 ± 6,900	4,300 ± 600	32,300 ± 5,800
1989	3.0	25,600 ± 9,300	5,000 ± 800	45,600 ± 14,100
1990	3.0	31,400 ± 12,700	6,300 ± 800	54,100 ± 14,100
1991	4.0	28,500 ± 8,000	7,700 ± 800	64,400 ± 6,900
1992	2.5	20,100 ± 8,300	4,300 ± 900	31,700 ± 6,900
1993[a]	2.5	31,100[b,c]	6,400[c]	56,700[c]
1994[a]	5.5	29,400[b,c]	[c]	[c]
1995[a]	3.9[b]	33,400 ± 6,600	5,700 ± 2,100	61,600[c]
1996[d]				
1997[d]				
1998[d]				
1999[d]				
2000[d]				
2001[d]				
2002	4.4[e]	17,400[c,f]	4,400[c]	35,600[c]
2003	3.3[g]	31,500	5,800	42,300
2004	4.9[h]	29,200	5,500	42,200
2005	5.3[i]	42,900	5,900	49,800
2006	5.0[j]	26,900	5,400	38,700
2007	4.4[k]	36,091	5,632	44,165

[a] Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

[b] Rough estimate.

[c] Data or confidence interval not available. Other years show 95% confidence interval.

[d] No harvest estimate; survey not conducted.

[e] 553 goose hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

[f] The proportion of RMP geese in the Magic Valley was estimated to be 33%.

[g] 515 goose hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters. In 2003 hunters were specifically asked whether they were hunting in the Pacific or RMP population zones.

[h] 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

[i] 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

[j] 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

[k] 601 hunters were contacted or about 4.4% of the estimated 13,510 goose hunters.

Table 13. Estimated statewide harvest of Canada geese obtained from the Department telephone survey, 1988-2007.

Year	% license buyers sampled	Harvest	Average birds per hunter per year	Hunters	Days hunted	Days hunted per hunter per year
1988	4.6	38,300 ± 7,000	3.8	10,200 ± 900	78,200 ± 8,100	7.7
1989	3.0	46,500 ± 10,400	4.0	11,600 ± 1,200	95,700 ± 14,000	8.3
1990	3.0	58,700 ± 15,100	5.1	11,600 ± 1,100	98,000 ± 9,700	8.4
1991	4.0	71,200 ± 19,800	5.5	13,000 ± 1,100	117,100 ± 10,100	9.0
1992	2.5	61,000 ± 17,000	4.9	12,400 ± 1,500	99,200 ± 12,100	8.0
1993[a]	2.5[b]	74,100 ± 11,500	4.4	16,800 ± 400	145,400 ± 12,600	8.7
1994[a]	5.3	102,500 ± 11,500	5.6	17,800 ± 4,000	178,000 ± 13,400	10.1
1995[a]	3.9[b]	98,000 ± 10,800	4.7 ± .5[c]	21,000 ± 4,100	201,600 ± 13,200	9.6 ± .6[c]
1996[d]						
1997[d]						
1998[d]						
1999[d]						
2000[d]						
2001[d]						
2002	4.4[e]	41,800	3.3	12,500	110,200	8.8
2003	3.3[f]	93,500	6.0	15,400	132,300	8.4
2004	4.9[g]	67,100	4.7	14,300	108,300	7.6
2005	5.3[h]	82,600	5.9	14,100	122,600	8.7
2006	5.0[i]	75,500	5.2	14,500	109,700	7.6
2007	4.4[j]	86,031	6.4	13,510	109,931	8.1

[a] Survey was conducted by a private contractor using some procedures which differed from those used by the Department in preceding years. Consequently, estimates are not comparable to those for preceding years.

[b] Approximate.

[c] 95% confidence interval.

[d] No harvest estimate; survey not conducted.

[e] 553 hunters were contacted or about 4.4% of the 12,500 estimated goose hunters.

[f] 515 hunters were contacted or about 3.3 % of the estimated 15,400 goose hunters.

[g] 705 hunters were contacted or about 4.9% of the estimated 14,300 goose hunters.

[h] 742 hunters were contacted or about 5.3% of the estimated 14,100 goose hunters.

[i] 727 hunters were contacted or about 5.0% of the estimated 14,500 goose hunters.

[j] 601 hunters were contacted or about 4.4% of the estimated 13,510 goose hunters.

Table 14. Estimated waterfowl harvest numbers from USFWS's waterfowl hunter survey for Idaho, 1988-2006.

Year	Duck stamps sold	Estimated adult hunters	Total geese harvested[a]	Total ducks harvested[a]
1988	16,597	14,271	26,600	112,900
1989	16,894	14,073	30,500	119,600
1990	17,036	13,443	36,800	96,700
1991	17,151	14,144	39,500	117,880
1992	17,717	14,132	31,700	126,700
1993	21,761	17,972	45,600	153,200
1994	21,229	17,418	61,100	141,300
1995	21,097	18,395	46,900	203,400
1996	22,382	19,751	61,100	245,800
1997	23,697	22,241	40,700	248,600
1998	23,515	21,006	56,700	254,700
1999	26,709	20,795	28,500	228,300
2000	28,206	23,306	86,200	173,200
2001	26,173	12,000/14,900[b]	64,400	138,600
2002	24,937	14,500 / 9,900[b]	36,700	160,600
2003	24,878	18,200/15,400[b]	84,200	262,900
2004	24,320	17,100/13,300[b]	62,700	188,500
2005	23,724	18,500/16,000[b]	74,300	258,300
2006[c]	25,726	18,400/14,5000[b]	77,800	278,000

[a] Adjusted for exaggeration memory bias and juvenile hunter density.

[b] The first number is estimated number of duck hunters and the second number is estimated number of goose hunters.

[c] Preliminary estimate July 2007.

APPENDIX A

IDAHO

2007 SEASON

WATERFOWL RULES

2007
Waterfowl Seasons and Rules

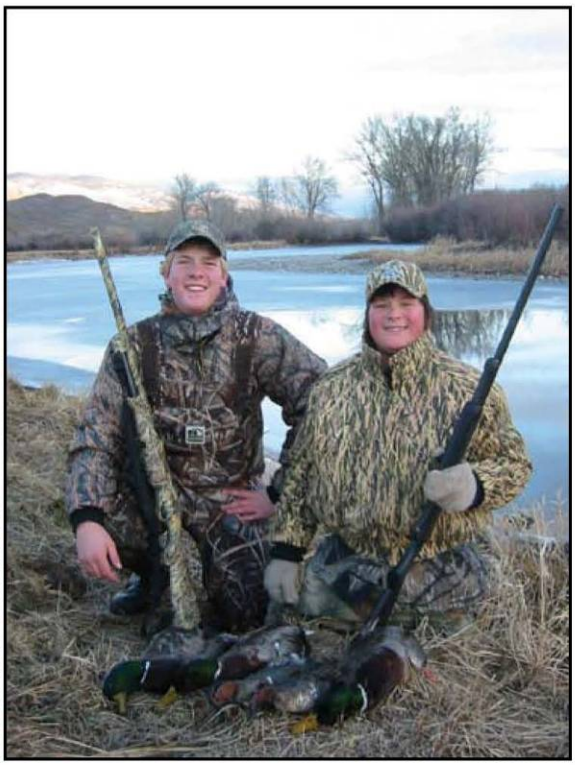


Photo courtesy of Rick Carlson

Including: Common Snipe and American Coot

- **Federal Migratory Game Bird Harvest Information Program Validation - REQUIRED**
- **Nontoxic Shot - REQUIRED**
- **Federal Migratory Bird Stamp - REQUIRED (All hunters 16 or older)**

You may refer to these links for laws pertaining to this rule book:

Administrative Procedures Act:
http://adm.idaho.gov/adminrules/rules/idapa13/13index.htm
http://www3.state.id.us./idstat/TOC/36FTOC.html

RULES

September 2007 through January 2008

Goose Seasons

General Season

Area 1
Oct. 6, 2007 — Jan 18, 2008

Area 2
Oct. 13, 2007 — Jan. 25, 2008

Statewide Duck

Area 1
Oct. 6 , 2007 — Jan. 18, 2008

Area 2
Oct. 13, 2007— Jan. 25, 2008

SPECIAL YOUTH HUNT
Sept. 29 and 30, 2007

GOOSE

Goose Seasons and Hunt Area Descriptions

(Including: Dark Geese—Canada and White-fronted;
Light Geese—Ross' and Snow)

AREA 1

Area 1 includes all parts of the state NOT included in Area 2. Fremont and Teton counties are CLOSED to the taking of light geese.

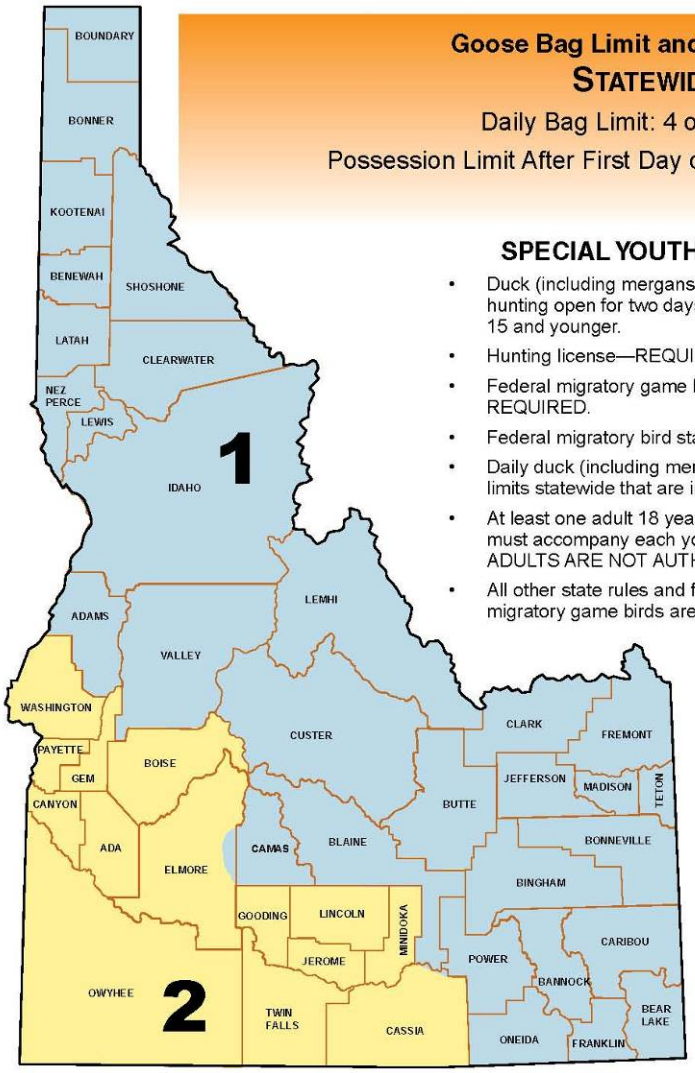
Open Season:
October 6, 2007 through January 18, 2008

AREA 2

Area 2 includes the following counties or portions of counties:

Ada; Boise; Cassia - EXCEPT the Minidoka National Wildlife Refuge; Canyon; Elmore - EXCEPT the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Power; Twin Falls; and Washington counties.

Open Season:
October 13, 2007 through January 25, 2008



Goose Bag Limit and Hunt Areas
STATEWIDE

Daily Bag Limit: 4 of any kind.

Possession Limit After First Day of Season: 8 of any kind.

SPECIAL YOUTH WATERFOWL HUNTING DAYS

- Duck (including merganser and canvasback), goose, snipe, and coot hunting open for two days only, on September 29 and 30, 2007, to hunters 15 and younger.
- Hunting license—REQUIRED.
- Federal migratory game bird harvest information program validation—REQUIRED.
- Federal migratory bird stamp—NOT REQUIRED.
- Daily duck (including merganser), goose, snipe, and coot bag limits: Same limits statewide that are in effect during regular seasons.
- At least one adult 18 years of age or older having a valid hunting license, must accompany each youth hunting party into the field at all times. ADULTS ARE NOT AUTHORIZED TO HUNT.
- All other state rules and federal regulations pertaining to the taking of migratory game birds are in effect for this hunt.

HELP PRESERVE THE TRADITION— TAKE A KID WATERFOWL HUNTING!

Statewide Duck (Including merganser), Common Snipe and American Coot Seasons and Limits

AREA 1

Area 1 includes all parts of the state NOT included in Area 2.

Open Season:
October 6, 2007 through January 18, 2008

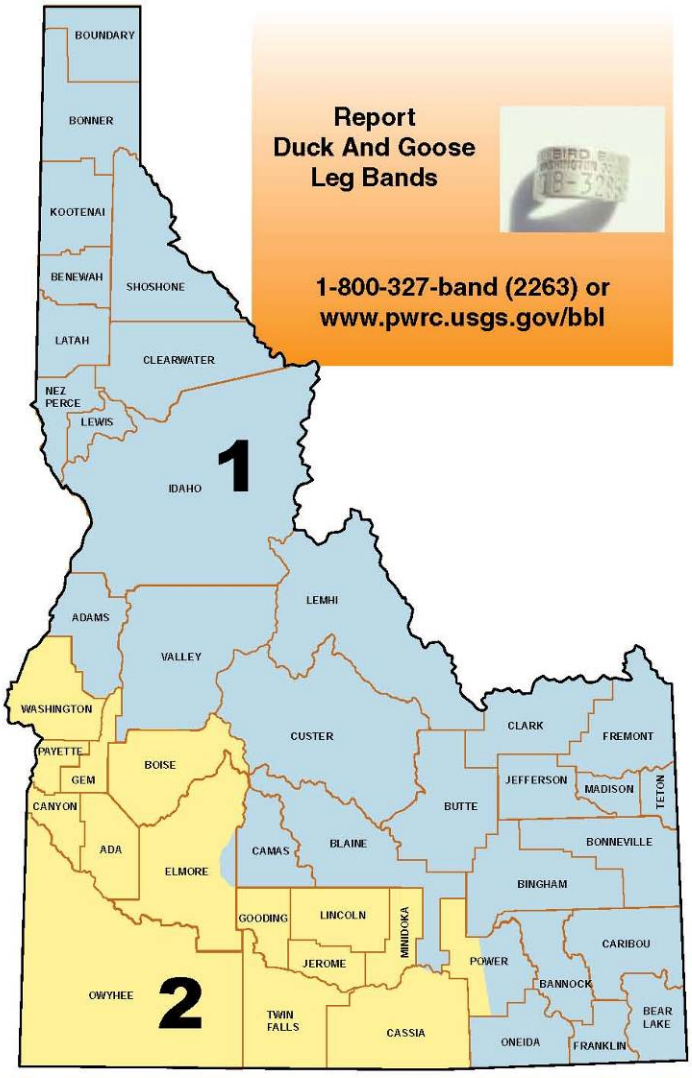
AREA 2

Area 2 includes the following counties or portions of counties:

Ada; Boise; Canyon; Cassia EXCEPT the Minidoka National Wildlife Refuge; Elmore - EXCEPT the Camas Creek drainage; Gem; Gooding; Jerome; Lincoln; Minidoka; Owyhee; Payette; Power west of State Highway 37 and State Highway 39 EXCEPT the Minidoka National Wildlife Refuge; Twin Falls; and Washington Counties.

Open Season:
October 13, 2007 through January 25, 2008

DUCK



Report Duck And Goose Leg Bands

1-800-327-band (2263) or www.pwrc.usgs.gov/bbl

Duck Bag Limit

(Including mergansers)

Daily Bag Limit: 7 of any kind except:

Shall not include more than the following:

- 2 canvasback
- 2 female mallards
- 2 redheads
- 1 pintail
- 3 scaup (lesser or greater in the aggregate)

Possession Limit After First Day of Season:

14 of any kind except:

Shall not include more than the following:

- 4 canvasbacks
- 4 female mallards
- 4 redheads
- 2 pintail
- 6 scaup (lesser or greater in the aggregate)

Bag Limits for Areas 1 and 2 for Coots and Common Snipe

Coots

Daily Bag Limit: 25

Possession Limit
After First Day of Season: 25

Common Snipe

Daily Bag Limit: 8

Possession Limit
After First Day of Season: 16

SANDHILL CRANE SEASONS, LIMITS AND PERMITS

HUNT AREA	HUNT NO.	SEASON	PERMITS
1	9501	September 1-15	300
2	9502	September 1-7	40
2	9503	September 8-15	40
3	9504	September 1-7	40
3	9505	September 8-15	40
4	9506	September 1-7	10
4	9507	September 8-15	10
5	9508	September 1-7	10
5	9509	September 8-15	10
Note: Daily limit is 2 for all hunts. The season limit is 9			

On August 30, 2007, any controlled hunt permits that remain unsold after the controlled hunt drawing may be sold on a first-come, first-serve basis. In 2007 hunters may purchase as many as 9 permits and tags to hunt cranes. Each additional permit to harvest a crane will cost $15.75.

One of the purposes of these hunts is to help reduce crop damage by sandhill cranes. Check with local landowners or Department offices for information on crane use areas and remember: always ***"Ask First to Hunt on Private Property."***

CONTROLLED HUNT WORKSHEET

Applications can be submitted electronically at any IDFG license vendor. Applications can be made using your credit card by calling 1-800-554-8685 or on the Fish and Game website (http://fishandgame.idaho.gov). Controlled hunt worksheets can be mailed with proper fees to: IDFG License Section, P.O. Box 25, Boise, ID 83707.

Use this worksheet to speed up the application process. Fill in the blanks with your hunting license and controlled hunt numbers before you apply. **Group Applicants:** Two hunters may apply on the same application.

HOW MANY HUNTERS ARE APPLYING? ☐

DESIGNATE $1 OF FEE TO C.A.P.? (CITIZENS AGAINST POACHING) YES ☐ NO ☐

(Single application for deer, elk, pronghorn, bear, moose, goat, sheep, Canada goose, sandhill crane or turkey)

NAME #1 ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Date of birth ☐☐☐☐☐☐

LICENSE NUMBER ☐☐☐ ☐☐ ☐☐☐☐☐☐

(Group application for deer, elk, pronghorn, bear, moose, goat, sheep, Canada goose, sandhill crane or turkey)

NAME #2 ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Date of birth ☐☐☐☐☐☐

LICENSE NUMBER ☐☐☐ ☐☐ ☐☐☐☐☐☐

IDAHO 2007

SANDHILL CRANE Controlled Hunt Season and Application Information

Crane hunters must have a $1.75 Federal Migratory Game Bird Harvest Information Program (HIP) validation on their licenses. This validation is available at any license vendor.

CONTROLLED CRANE HUNTS

Permit Requirements: No person shall hunt sandhill cranes without having in possession the appropriate hunting license, controlled hunt permit, sandhill crane tag and federal HIP validation.

FEES

Application Fee	$6.25 (non refundable)
Controlled Hunt Permit	$7.75
Sandhill Crane Tag	$1.75
Federal HIP Validation	$1.75

***Note:** Only the Application Fee is required during the application process. Successful applicants must then purchase permit, tag and federal HIP validation. The HIP validation is required with the first permit only.*

Application Dates: June 15, 2007 to July 15, 2007. Applications may be submitted electronically at any Fish & Game license vendor, by telephone (1-800-554-8685), by mail or on the Fish and Game website http://fishandgame.idaho.gov. Mail applications must be received at IDFG Headquarters Office and **postmarked no later than the last day of the application period.** Applications will be taken **no earlier than the first day of the application period.** Applications must comply with the following requirements:

- Only one application form per person or group will be accepted. Additional application forms will result in all applicants being declared ineligible.
- Each applicant for controlled hunts must submit a $6.25 nonrefundable application fee with their application. One dollar of this fee may be designated for the Citizens Against Poaching program.
- A single payment (either cashier's check, money order, certified check or personal check) may be submitted to cover fees for all applications in the same envelope. If a check or money order is insufficient to cover the fees, all applications will be voided.
- Visa, MasterCard and Discover cards may be used to make telephone or internet applications. Those using the credit card system will pay the $6.25 fee in addition to a service charge for completing and processing the computerized application and delivering it to Fish and Game. Charges will be explained upon request. To apply by credit card, dial 1-800-554-8685, 24 hours a day. Or look under "Licenses/Tags" on the IDFG website.

Group Application is defined as two hunters applying for the same controlled hunt on the same application.

Second Choice Drawing: Single or group applications which are not drawn for the first choice hunt will automatically be entered into a second choice drawing provided the second choice hunt applied for has not been filled.

Notification: It is your responsibility to find out if you were successful in drawing a controlled hunt permit. Applicants can check drawing results on the Fish and Game website, http://fishandgame.idaho.gov by August 10. Successful applicants will be sent a postcard by August 10 informing them of their success. These applicants may go to any vendor and purchase a controlled hunt permit. Controlled hunt permits may also be purchased on the Internet.

Nonresident Permit Limitations: On 2007 controlled hunts, not more than 10 percent of the permits may be issued to nonresidents.

Ask First—For Permission to Hunt on Private Property

The Idaho Department of Fish and Game (IDFG) adheres to all applicable state and federal laws and regulations related to discrimination on the basis of race, color, national origin, age, sex, or handicap. If you feel you have been discriminated against in any program, activity, or facility of IDFG, or if you desire further information, please write to: Idaho Department of Fish and Game, P.O. Box 25, Boise, ID 83707; OR The Office of Human Resources, U.S. Fish and Wildlife Service, Department of the Interior, Washington, DC 20240.

Information in this brochure summarizes the rules and is the official proclamation of the Idaho Fish and Game Commission for the hunting of sandhill cranes in calendar year 2007. Further explanation is available in the current Upland Game Seasons brochure. The official rules are available from the Division of Statewide Administrative Rules, Department of Administration, Statehouse Mail, Boise, ID 83720.

Costs associated with this publication are available from IDFG in accordance with section 60-202, Idaho Code. 6-07/2500/41918

Sandhill Crane Controlled Hunt Areas include the following:

Area 1 — Includes all of Bear Lake County and all of Caribou County EXCEPT that portion downstream from the dam at Alexander Reservoir south of U.S. Highway 30, and that portion lying within the Grays Lake Basin.

Area 2 — Includes all of Teton County.

Area 3 — Includes all of Fremont County.

Area 4 — Includes all of Bonneville County.

Area 5 — Includes all of Jefferson County.

No mandatory check required for cranes in 2007.

Take a Kid Hunting!

Appendix Table A-1. Idaho waterfowl management, season structure, and limits, 1990-present.

	Duck			Goose		
Year	Management Areas	Season Length (days)	Daily Limit[a]	Management Areas	Season Length (days)	Daily Limit[a]
1990-1991	2	59	4	5	93	3
1991-1992	3	59	4	5	93	3
1992-1993	3	59	4	5	93	3
1993-1994	3	59	4	5	93	4 (3)
1994-1995	3	59	4	5	93	4 (3)
1995-1996	3	93	6	5	100	4 (3)
1996-1997	3	107	7	5	100	4 (3)
1997-1998	2	107	7	5	100	4 (3)
1998-1999	2	107	7	3	100	4 (3)
1999-2000	2	107	7	3	100	4 (3)
2000-2001	2	107	7	3	100	4 (3)
2001-2002	2	107	7	3	100	4 (3)
2002-2003	2	107	7	4	100	4 (3)
2003-2004	2	107	7	3	107	4 (3)
2004-2005	3	107	7 (5)	3	107	4 (3)
2005-2006	2	107	7	2	107	4
2006-2007	2	107	7	2	107	4
2007-2008	2	107	7	2	107	4

[a] Numbers in parenthesis indicate management areas had different daily limits.

Submitted by:

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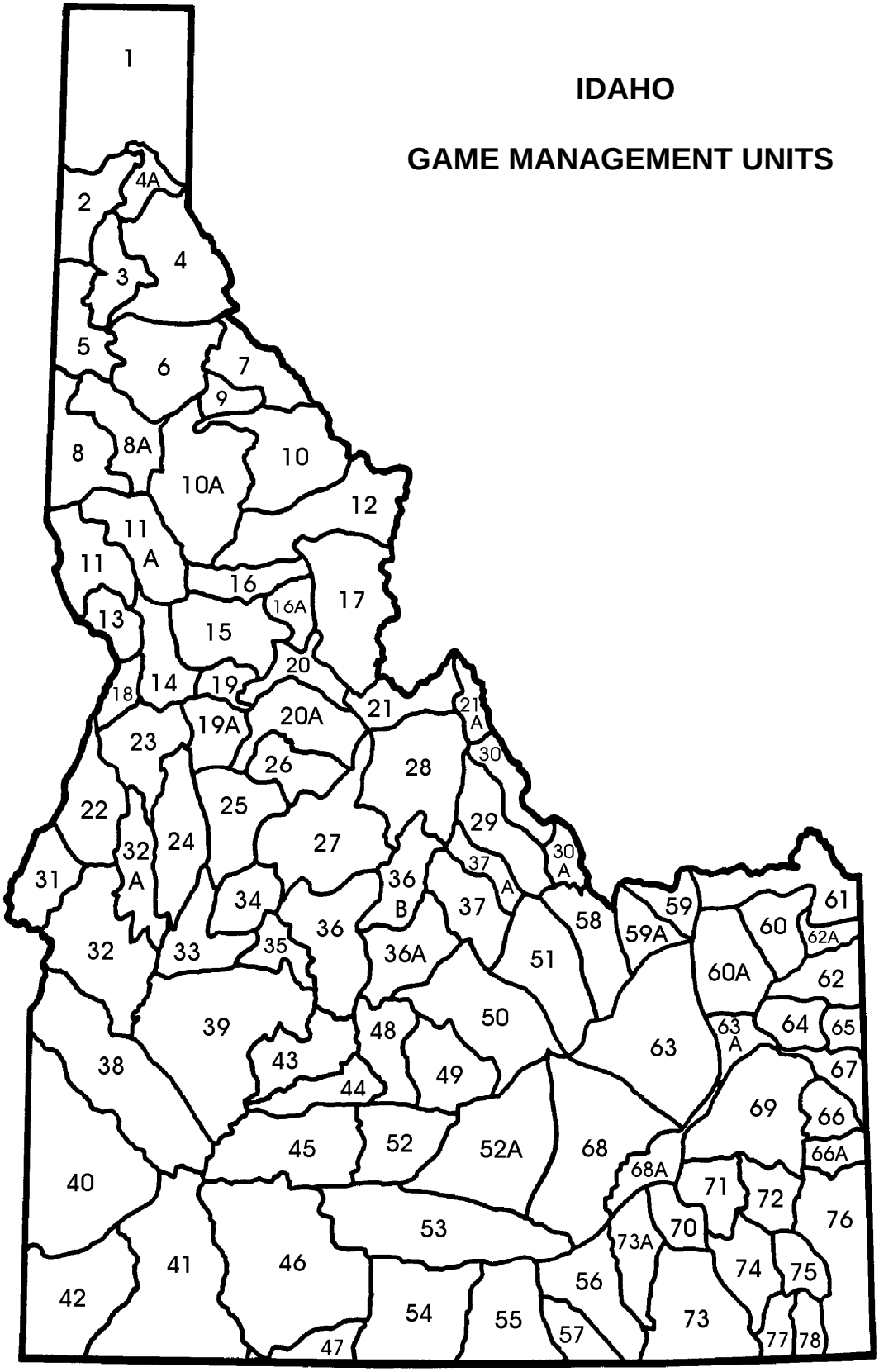
Approved by: IDAHO DEPARTMENT OF FISH AND GAME

Dale E. Toweill
Wildlife Program Coordinator
Federal Aid Coordinator

Jeff Gould, Chief
Bureau of Wildlife

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.