MOTORIZED BIG GAME RETRIEVAL AND ELK MANAGEMENT

Arizona Game and Fish Department White Paper

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I. Introduction

The Arizona Game and Fish Department (Department) works cooperatively with the US Forest Service (USFS) in the management of wildlife species and habitat on Forest Service land. The USFS is currently in various stages of developing road management plans throughout all Forests within Arizona in accordance with the final rule, 36 CFR Part 212 Travel Management; Designated Routes and Areas for Motor Vehicle Use. This final rule allows the responsible official to "include in the designation the limited use of motor vehicles within a specified distance of certain forest roads or trails where motor vehicle use is allowed, and if appropriate within specified time periods, solely for the purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal." The following information is intended to assist the Forest in making informed decisions regarding the use of motorized big game retrieval (MBGR). The information contained in this white paper focuses on antlerless elk management due to the following reasons: 1) Antlerless elk retrieval encompasses the majority of hunter need and potential habitat impacts from MBGR and 2) Achieving management objectives for antlerless elk are the most likely to be hampered by restrictions on MBGR.

Recommended Action

Historically, MBGR has been allowed on the Forests as a tool for hunters to achieve harvest success. Cross-country travel has also been allowed for other users with specific purposes (e.g. wood cutting/ gathering, fence maintenance, etc.). While the Department supports the change to prohibit most cross-country travel to facilitate natural resource protection, we encourage the Forest Service to continue to allow off-road access consistently among users for specific purposes, especially those activities that do not result in unreasonable resource damage, to provide the appropriate access for the maintenance and management of habitat and wildlife populations. The Department also advocates for a consistent, statewide approach to implementing the MBGR guidance. This is of particular concern across forests with shared boundaries, and often shared game management units, including the Coconino, Apache-Sitgreaves, Kaibab, Prescott, and Tonto National Forests.

The Department recommends the National Forests of Arizona universally adopt the following rule for MBGR:

> *Big game retrieval is allowed for legally taken and tagged elk, mule deer, bear, and bison during an open season as designated for those species by the Arizona Game and Fish Commission and for twenty-four hours following the end of each season provided it can be done without unreasonable resource damage. CHAMP hunters, (those hunters who are physically challenged and have a Challenge Hunter Access/Mobility Permit) are allowed to recover <u>all</u> legally taken big game during their season and for 24 hours following the close of their season provided it can be done without unreasonable resource damage.*

II. Elk Harvest and Habitat Management

The Department's elk harvest and habitat management goals and objectives are deployed and implemented through detailed planning and public processes. Coordination with the USFS ensures land management objectives set by the USFS, including habitat and resource protection, are taken into consideration in the management of elk. USFS concerns are generally first addressed between the USFS District and the Department's local Wildlife Manager and then addressed in a meeting between the Forest and the Region. USFS concerns regarding impacts from game populations can then be carried forward as supporting documentation for hunt recommendations.

The purpose of the Department's Game subprogram is to protect, restore, and manage game populations and their habitats, to maintain the natural wildlife diversity of Arizona, and to provide wildlife-oriented recreation opportunities for present and future generations. Elk management objectives include:

- Manage post-hunt populations statewide to be consistent with the Elk Management Plan.
- Address local issues in the Elk Management Plan that may influence localized populations, despite current statewide population levels.
- Maintain annual harvest at 9,000 or greater.
- Provide recreational opportunity for 20,000 or more hunters per year.
- Provide 100,000 hunter days or greater each year.
- Develop cooperative action plans, including monitoring, with property owners, lessees, and land management agencies to reduce elk-livestock conflicts.

The Department utilizes hunting as a management tool to protect natural resources including wildlife habitat. In response to requests from the USFS and our own data, the Department has designed hunts to reduce elk populations on the Coconino and Kaibab National forests for the last 17 years and worked to maintain populations at necessary levels to address habitat concerns such as the protection of meadows and aspen groves. Each year the Department uses aerial hunt patrols to detect violations such as hunting from a vehicle or vehicles traveling cross country in vehicle closure areas. During these patrols, the Department often observes elk concentrated in areas between roads. The primary tool for regulating populations is antlerless harvest, and while many hunters will work hard for a trophy bull, antlerless hunters are more likely to be deterred (and ultimately unsuccessful in harvesting) by access issues such as wet weather, wet roads, and other access restrictions. In response, the Department has 1) added permits; 2) increased the number of hunts; and 3) split game management units to concentrate hunters.

Harvest objectives have been difficult to achieve in some areas. Adding MBGR restrictions will likely decrease antlerless harvest in these areas, making it more difficult to achieve harvest objectives. The Department is concerned restrictions on MBGR will discourage hunting in areas not readily accessible by roads. Hunters may avoid these areas for fear of not being able (either physically or logistically) to retrieve downed game in a timely manner.

III. Regional Elk Harvest Objectives

Region I:

All Region 1 elk game management units (units) listed in the table below have consistently provided both bull and antlerless elk hunts to achieve elk population management objectives. After intensifying harvest in the antlerless segment of the population over the past several years to reduce elk populations on the Apache-Sitgreaves National Forest (A-S), many of these antlerless hunts are now designed to stabilize elk populations. Elk populations in many units are currently estimated to be at roughly half of what they were prior to 2000, and the Region continues to maintain harvest pressure on the antlerless segment of the elk population to moderate or stabilize elk population growth. This generalized management approach is not expected to alter substantially in the future, and higher levels of hunter success are important to meet population objectives.

Most Region I "any elk" hunts occur in non-traditional elk habitat designated in the Elk Management Plan as a "Limited Population Management Zone". In these areas, the goal is to have as few elk as practical. Most of these areas do not include USFS land and are primarily designed to address private land conflicts. One exception is in Unit 27 within the 27 South and Martinez hunt areas. These areas encompass USFS lands and keep elk populations at low levels in non-traditional elk habitat. There are landscape-scale habitat projects underway in Unit 27 that were funded and supported by The Department, USFS, Arizona State Land Department, and private landowners. These projects are also intended to benefit other species such as mule deer, white-tailed deer, antelope, and nongame species. The Region has relied upon "any elk" hunt structures to keep elk populations at low levels to meet "Limited Population Management Zone" objectives, and to promote desired population responses of other species.

The following table summarizes current elk population management objectives for units within Region I. Units 2A/2B/2C are designated in the Elk Management Plan as "Limited Population Management Zones" with substantial portions of those units lying outside USFS land.

Unit	Management Objective
1	Stabilize
3B	Stabilize
3C	Stabilize
4A	Stabilize
4B	Stabilize
27	Stabilize or slightly increase

Region II:

Unit 5A, 5B, and 6A elk herd unit:

1. Region II has met population objectives in Units 5A, 5BN, and 6A. We now intend to stabilize and/or slightly increase the overall herd in response to favorable habitat conditions, while favorable conditions prevail.
2. We have achieved substantial reductions of the elk herd which used the state and private lands year around through subunit hunts which indirectly benefits the forest lands. We will continue to use specific sub-units with Limited Opportunity Hunts (hunts where the probability of success is low) and coordinate with land owners to address concerns of elk residing year-round on winter range on private and state lands in Units 5A and 5BN. The appropriate level of antlerless elk harvest has been achieved on the Melatone Mesa portion of Unit 5BS, resulting in the elimination of the Unit 5BS sub-units (Melatone Mesa and Hutch Mountain).
3. Stabilize and/or slightly increase the herd in Unit 6A if favorable habitat conditions prevail.

Unit 6B, 8, and Camp Navajo elk herd unit:

1. Stabilize or slightly reduce that portion of the herd in Unit 6B to compensate for recruitment from the Camp Navajo sub-herd and to respond to population trend indicators showing an increase in this herd. Keep bull:cow ratio within established hunt guidelines.
2. Continue to work with Camp Navajo to focus the harvest on the female segment of the population.
3. Continue telemetry of Camp Navajo elk to tailor hunt structure to the temporal and spatial dynamics of the sub-herd.
4. Stabilize and/or slightly increase portion of the herd in Unit 8 and annually adjust harvest in response to monitored forage capacity in coordination with the Kaibab National Forest.

Unit 7 elk herd unit:

1. Stabilize the portion of the herd residing in Unit 7E as population objectives have been met. The Coconino and Kaibab National Forests continue to have concerns about the lack of aspen regeneration in Unit 7E.
2. Continue to stabilize and/or slightly reduce the portion of the herd residing in Unit 7W in response to population trend indicators showing an increase in this herd and concerns about lack of aspen regeneration from the Coconino and Kaibab National Forests.

Unit 9 Elk herd unit:

1. Stabilize and/or slightly reduce this herd in response to habitat concerns:
2. Manage the bull segment of the population to maintain a survey ratio of up to 40 bulls per 100 cows.

Units 12A and 12B Elk herd unit:

1. Maintain the elk population at very low levels.
2. Beginning in 2005, permitted deer hunters in Unit 12A have had the opportunity to purchase an elk tag valid for the same area and dates of their deer hunt. No elk were reported harvested. In 2008, this area was included in providing unlimited over-the-counter elk tags to continue pressure on this herd.
3. Region II will continue to monitor this herd and make hunt recommendations aimed at maintaining elk at very low densities on the Kaibab plateau. In 2007, there were believed to be less than 12 elk on the Kaibab Plateau.

The following table summarizes current elk population management objectives for Region II units.

Unit	Management Objective
5A	Stabilize/Slightly Increase
5B	Stabilize/Slightly Increase
6A	Stabilize/Slightly Increase
6B	Stabilize
7	Stabilize
8	Stabilize
9	Stabilize
12A and B	Reduce

Region III

Elk populations in northwestern Arizona began increasing in the 1970s. This increased the conflicts between elk and local landowners and ranchers. Within 10 years, concerns about property damage, crop depredation, and competition with livestock became central to elk management in Region III. Elk management objectives in Region III, except in Unit 10, are to minimize conflicts with other wildlife resources, and public and private landholders.

The majority of occupied habitat in Region III is not historic elk habitat. The Region continues to deal with concerns over damage caused by the expanding elk populations. In an attempt to control the growth of these populations, Region III has also been steadily increasing the number of elk permits offered. Hunt permit levels are quite high for antlerless seasons, hunt structures are designed to increase harvest during the rutting period, or lengthened season dates for permit holders.

While "any elk" permits are ideal for the goal of removing elk in areas of concern, "any elk" permits generally are effectively used by hunters as "bull elk" permits. The best way to effectively decrease these populations is to reduce the antlerless population; hence the introduction of an early general season antlerless season and a significant increase in both "any elk" and antlerless elk permits during the late general season. Most recently, the introduction of unlimited, over-the-counter permit seasons are being offered in some areas.

The Department coordinates with landowners to maintain open areas for elk hunting, while directing permit holders into areas where elk need to be removed.

Unit	Management Objective
10	Stabilize
17A	Reduce
17 B	Reduce
18B	Reduce
19A	Reduce
19B	Reduce
20A	Reduce

Region VI:

Unit 21:
This unit primarily has only bull hunts. We continue to monitor the elk population through annual surveys and hunter harvest. Unit 21 is split into a Standard Population Management Zone, and a Limited Population Management Zone.

Although there have not been any complaints related to depredation in Unit 21, elk have access to private agricultural lands near the town of Camp Verde. This portion of Unit 21 is part of the Verde Valley Hunt Unit, which also encompasses portions of Units 6A and 19A. Hunts in the Verde Valley Hunt Unit are used to harvest elk that may be damaging crops. These hunts are currently administered out of Region III. The Verde Valley Hunt Area is also available to hunters that purchase over-the-counter elk tags, which are valid for any elk.

Unit 22:
For Unit 22 we harvest bull elk and antlerless elk in accordance with Department elk hunt guidelines. During 1998, Unit 22 was split into 22 North and 22 South elk hunts. Since that time, the Region has continued Unit 22 North and South separately as to direct harvest toward the southern portion of the unit.

Unit 23:
In Unit 23 we harvest bull elk and antlerless elk in accordance with Department alternative elk hunt guidelines. During 1997, Unit 23 was split into 23 North and 23 South elk hunts. Four limited opportunity hunts are held annually in the Canyon Creek Hunt Area of Unit 23 surrounding the OW Ranch area. Thirty-two antlerless permits were issued over four hunts. These hunts are to address elk overuse on riparian resources in the Canyon Creek area. The predicted combined harvest from the four hunts is 20-25 antlerless elk.

Unit 24A:
Unit 24A is managed as a Limited Population Management Zone. Currently occupied and potential elk habitat in the unit is not contiguous, and is relatively small in terms of

land area. The Region recommends the unit be managed for low levels of elk so other management objectives, such as enhancing mule deer and white-tailed deer populations, can be the primary focus. If observations of elk increase in the future, more aggressive antlerless harvests will be recommended.

For all these units we annually adjust the harvest of resident adult elk to keep population and hunt success parameters within Department guidelines. Population management hunts may be used to address problems associated with elk depredation on private and/or public lands in Units 22 and 23.

Unit	Management Objective
21	Stabilize
22	Stabilize
23	Increase
24A	Decrease

IV. Regional Habitat Management Objectives

Region I

The Region continues to conduct annual herbaceous forage production and utilization monitoring within the A-S in Units 1, 3B, 3C, 4A, and 27. The objective of the monitoring program is to gather habitat-based parameters for incorporation into the Region's annual elk population management recommendations. The Region's monitoring program was initiated in the early 1990's in response to concerns that high elk numbers were negatively impacting sensitive habitats within the A-S. Since that time, elk numbers have been reduced in Region I based on population surveys and a corresponding reduction in herbaceous forage use by elk. In addition, habitat conditions within many of the monitoring sites have improved and the Region continues to rely on antlerless elk seasons to manage elk population size on forest lands.

Region I has worked with the A-S, the Arizona State Land Department, and various private land owners to fund and implement many wildlife habitat improvement projects throughout the Region (primarily Units 1, 3B, 4A, 4B, and 27). The majority of landscape level habitat projects funded to date have primarily focused on mechanical and hand thinning of juniper encroached areas to improve habitat conditions within big game transition and winter range habitats, the application of prescribed fire within various habitat types, and the maintenance and development of wildlife waters. In addition, the Region has worked with the A-S to maximize benefits to wildlife associated with Wildland Urban Interface fuel reduction project activities. Improvement of habitat for other big game species such as mule deer and antelope have been the primary focus of many of the Region's recent landscape level habitat projects, though benefits also extend to associated elk populations. The region continues to utilize late-season elk hunts as a means of meeting overall elk management objectives, with accompanying hunter harvest typically occurring in these expansive winter range/transition habitat areas. The ability of hunters to use MBGR to harvest elk serves to disperse harvest of elk in these winter range

areas (beyond main roads and travel corridors) and to achieve the Department's elk population management objectives.

Region II

Antlerless and any elk hunts are needed in Region II to maintain elk populations within the biological and social carrying capacity of their habitat. In the 1990s and early-2000s, elk populations in Region II probably exceeded their carrying capacity, resulting in negative influences on habitat and wildlife. Excessive grazing and browsing by ungulates can damage habitat, requiring several years for vegetation to recover.

Antlerless and any elk hunts were used to reduce and stabilize the population. Since the 1990s, livestock owners have expressed concern about high populations of elk because elk may compete with livestock for resources. The Forage Resource Study Group and the Flagstaff and Williams Habitat Partnership, comprising members of the public and agencies, were formed in response to these concerns. These same livestock owners are currently worried about the effect of elk on browse for deer. In addition, when elk populations were high, local citizens were concerned about damage to ornamental shrubs and increased vehicle-elk collisions.

For many years, the Coconino and Kaibab National Forests have expressed concern about the impact of elk browsing on the regeneration of aspen. This is still a concern, but was heightened when elk were previously more numerous. Recently concerns have increased when adult aspen began dying at a high rate across the western United States.

In the early-2000s, the Forest Service had concerns about the negative impacts of high densities of elk on wetlands and wetland associated species, such as the endangered spinedace. The Friends of Anderson Mesa have recently expressed their concerns about high elk densities and their affect on pronghorn antelope and mule deer.

A recent decision regarding water developments on the Tusayan District of the Kaibab National Forest requires monitoring of elk browse impacts to vegetation.

Region III

The Region addresses concerns with elk and habitat through aggressive harvest management strategies. The Regional elk management goal is to reduce elk numbers and stabilize at levels such that habitat concerns are reduced to the degree of insignificance.

Elk that occupy the Prescott National Forest have expanded their range into many areas that historically had no or few elk. The use of vehicles to retrieve big game is essential to dispersing hunters to areas were harvest is needed.

Region VI:

Payson Habitat Partnership Committee (PHPC) has been monitoring both spring and fall utilization in key areas since 1994. Elk forage monitoring continues in accordance with the Draft Region VI Elk Forage Monitoring Protocol in Units 22 and 23 in key areas where elk are known to feed and congregate. Elk range in Region VI is primarily

composed of USFS land, with only 7% private land. Due to the minimal amount of private lands within elk range, Region VI historically has had few conflicts with elk on private properties.

Unit 21

In Unit 21 monitoring of the elk population in relation to habitat type is an objective. Currently, there are no elk utilizing the Agua Fria Grasslands. With an emphasis being placed on grasslands and grassland health, and possible grassland restoration in the future, documenting possible use of grassland areas by elk in the future will be important in Unit 21.

Unit 22

Conflicts in Unit 22 between elk and other uses of the land exist. The urban interface areas around the communities in northern Unit 22 experience regular incursions by elk. Golf courses at the Rim Club, Chaparral Pines, and Payson Municipal Golf Course experience seasonal damage from elk.

Strategies for resolving conflicts around the urban interface include educating residential and commercial property owners about ways to discourage elk from causing damage. Other tools include implementation of stewardship agreements with private property owners. Strategies for addressing potential conflicts involving overuse of the forage resources on public lands include cooperative biannual monitoring of elk forage use, implementation of habitat improvement projects through the Habitat Partnership Committee process, annually adjusting permit levels, and use of the Department's population management hunts.

Unit 23

In Unit 23, elk are impacting isolated riparian areas such as Canyon and Mule Creek. Three riparian enclosures were constructed in April 2002 with coordination from the Payson Natural Resource Committee (PNRC) to mitigate the impacts of elk on the Canyon Creek and Mule Creek riparian vegetation. Increasing elk use in upland key areas has been of some concern across the northern half of the Region. To address these issues a forage monitoring strategy has been developed by the USFS and Department with input from the PNRC. Some upland cover plots have also been established within the Dude Fire area by the USFS and may yield information on wildlife use over time.

Because of the relatively low elk population levels in Unit 24A at this time, there have not been documented complaints about overuse of forage by elk on public lands, and there have not been complaints about conflicts with elk in the urban interface in the unit.

V. Hunter Demographics and Logistics

Appendix B (the Age and Gender Distribution for Antlerless Elk Hunters) can be used to estimate the % of hunters that would be unlikely to hunt in areas where MBGR was unavailable. The general assumption is that juveniles (18 years and younger = 15.2%), females (21.3%), and hunters age 50 or more (30%) would require substantial assistance

to retrieve a downed big game animal. Even allowing for some overlap between segments, > 50% of the hunter population would probably be challenged to retrieve an elk without assistance.

There is a significant difference in the dedication between bull and antlerless elk hunters. Bull hunters get relatively fewer opportunities to harvest due to the difficulty in drawing a bull hunt permit-tag, and bull hunters are generally willing to do more work to be successful. Antlerless hunters, on the other hand, can generally obtain tags on a more frequent basis and are less willing to put in extra effort to harvest and retrieve an animal. Antlerless harvests are the best tool for reducing or stabilizing population growth. As a result, barriers that limit antlerless harvest will reduce the Department's ability to meet elk harvest objectives, and address concerns about impacts to meadows and aspen by elk.

Fall weather can be unpredictable, with 70° temperatures into late fall. Warm weather and delayed retrieval can lead to meat spoilage. Wasting game meat is unlawful in Arizona. A complete ban on MBGR for elk and mule deer may increase the occurrence of wasted or spoiled meat. There may also be an increase in injuries suffered by those lacking the knowledge, skills, abilities, or tools to properly process and pack an adult elk or mule deer buck. Vehicular access seems particularly important for antlerless elk hunters. Adult elk are too large to drag by hand, and too large to pack out whole. This requires greater knowledge and ability from a hunter that harvests a large-bodied big game animal where it cannot be easily retrieved by vehicle. In an effort to educate hunters, the Department has published a booklet with instructions for handling big game and is in the process of providing these instructions on its internet web page via links to you-tube video. Despite these efforts, limited MBGR can result in spoiled meat unfit for consumption, wasted meat left in the field, and injuries to hunters who were physically unprepared for the rigors of field processing and packing big game.

The Department recognizes damage due to MBGR can occur during times of wet conditions. The Department coordinates with the USFS to rehabilitate these areas and coordinates with the USFS to establish closed areas to prevent or minimize damage. The emphasis should be on not allowing MBGR when driving cross-country would cause resource damage. This would be in line with the Coconino and Kaibab National Forests Wet Roads System. When wet road conditions occur, hunters are notified that cross-country travel is prohibited and many ancillary roads are closed. The Department could also enact similar regulation in statute or rule, which would allow Department officers to actively enforce these regulations

VI. Law Enforcement

The Department aggressively enforces Off Highway Vehicle (OHV) laws. The Department's statutory authority can be found in both Arizona Revised Statutes (ARS) Titles 17 and 28. The Department receives dedicated funding for OHV law enforcement and information and education activities. In addition, the Arizona State Legislature passed a bill last legislative session that will significantly affect the State's ability

(including the Department) to enforce laws, educate the public, and provide funding for the same (grant programs) as well as habitat protection.

A. Rules and Statutes

New Laws

On January 1, 2009 new OHV laws take effect that establish a user fee and provide more enforceable regulations for operation and equipment, including statutes to protect natural resources from OHV damage. This is a fundamental change in OHV enforcement efforts and allows for a broader application of the enforcement program and includes seven new enforcement positions to provide for opportunities to expand interaction with user groups as well as at-large users. In the past, the Department was limited to enforcing the only two existing statutes to protect natural resources from OHV damage. These were for reckless operation and property damage (ARS § 28-1174) and cross country travel (ARS § 17-454) both of which were very limited in scope and applicability. The new laws will greatly enhance our enforcement abilities.

ARS § 28-1174

This statue was amended to clarify appropriate operation. The emphasis of this statute is to keep individuals on roads and trails. In the past the Department was limited on citing individuals that ignored posted closures due to the fact that if it was a road and it was not closed through Commission Order, it did not meet the definition of cross country travel and was unenforceable. That has changed and officers will be able to issue citations. In addition, new language prohibits travel on roads that are not open by rule or regulation or have not been designated. Another section prohibits use of an OHV in violation of other statutes that explicitly address damages to the environment including excessive pollution of air, water, land, abuse of watershed or cultural or natural resources or impairment of plant or animal life. These changes are significant not only for enforcement, but also the awareness of the public. Training efforts will be implemented to help promote consistent application of the laws and increase compliance by the recreating public.

ARS § 28-1175

Education has been conspicuously lacking with respect to operation of OHVs in a manner that reduces impact to natural resources. The new law requires education to be available for violators. The Arizona Game and Fish Department is currently completing curriculum to address this need. This class should be available in January 2009 and will emphasize responsible and safe operation of OHVs with focus on environmental impacts, rules and regulations and special concerns such as dust and where to find information on places to ride.

ARS § 28-1176

This section was amended to increase funding available for grants and agreements, education, and law enforcement. Traditional areas of focus were expanded and now give preference to projects that include mitigation. In addition, funding can be expressly used for cultural, environmental and historic clearances. The Department

will gain seven new full time officers for the enforcement of OHV regulations. The addition of the seven new positions will bolster enforcement efforts and provide for opportunities to expand interaction with user groups as well as at-large users. These positions will be distributed throughout the state but will also be able to work on special task force projects. The goal is to provide natural resource protection and assure sustainable access.

ARS § 28-1177

This section establishes a user fee through the OHV Decal program. This decal will be applied either to a title only plate (RV or OHV) or to a registration plate (MC). This new program will provide funding to bolster OHV management efforts including facility development and maintenance, education, enforcement and increase user awareness of OHV issues through improved information and education. Accountability is increased through this program since there is a direct tie to the Motor Vehicle Record and a requirement to display the decal.

ARS § 28-1179

This section addresses the required equipment for OHV operation and adds the requirement for OHVs to have a USDA approved spark arrestor and restricts sound levels to 96dB. Persons under the age of 18 are required to wear a properly fitted and fastened DOT approved helmet when riding on an OHV. These requirements will provide opportunities for operators to increase their awareness of issues affecting OHV recreation and access.

B. Enforcement Practices

The Field Operations Division in Phoenix administers the Arizona Game and Fish Department's OHV Program including OHV law enforcement patrol and management efforts. OHV personnel within the Law Enforcement Branch as well as officers from six Regional offices, provide field presence, support, training, and administration of the OHV law enforcement efforts. These OHV enforcement efforts are focused to promote safe, ethical and responsible OHV use. Currently, over 100 field officers enforce laws, and guidelines which have been created to achieve safe, legal, and responsible OHV use by the public. To address statewide habitat protection and public safety goals and objectives, these officers operationally plan for and conduct OHV law enforcement, habitat damage, and outreach patrols across the state.

Routine Patrols

Department officers conduct routine OHV patrols to increase voluntary compliance with laws and rules and to educate OHV users on safe, ethical, and responsible OHV use. In support of these Regional efforts, 24 hour officer patrol assistance is directed at localized and high intensity areas requiring extra officer support. Routine effort occurs in conjunction with normal duties in public lands and state trust lands.

Targeted Patrols

Department officers conduct targeted patrols in high use, high violation, closed, and sensitive areas to increase voluntary compliance with laws and rules through

prosecution of violations and to educate OHV users on safe, legal, and ethical use of OHVs. The Department's OHV Law Enforcement Program Manager coordinates group projects with the Regional Law Enforcement Program Managers. Areas of special emphasis include specific hunt areas, antler pick-up patrols, high use OHV areas, OHV races, sensitive area protection patrols, and wilderness incursion prevention efforts. The Departments 2010-2011 Operational Plan reflects 15 OHV targeted patrol efforts. These patrols range in focus and include activities such as antler collection, fisheries compliance, OHV races, and projects related to habitat and wildlife protection.

OHV Violation Reporting

When the public observes habitat destruction or other unlawful activities, the public can report these violations to the Department via our toll free OGT Number or the 1-800-VANDALS Number. To raise public awareness and increase public activity of these numbers, additional Department outreach and advertisement of these numbers is being developed and implemented.

Hunting Season Patrol

General hunt season patrol efforts include OHV enforcement, outreach, and education during hunt patrols. Hunters using OHVs, as well as general OHV recreationalists, are routinely contacted in conjunction with seasonal hunting patrols during small and big game hunts. Hunters are encouraged to reduce their cross country travel when retrieving big game particularity in sensitive habitats or during wet field conditions.

Support Equipment

The Department utilizes remote sensing equipment, trail cameras, fixed-wing aircraft surveillance, and other techniques to monitor and assist with apprehending OHV violators. These efforts are both expensive and labor intensive as well as limited in scope. They have proven to be effective in special projects and remote area enforcement efforts.

APPENDIX A
From 2008 Hunt Arizona Book

ELK SURVEY AND HARVEST DATA 2008

Survey & Harvest data from 2008 Hunt Arizona Book/Data summary Book
(Historic data and 50year data by unit)

5-Year: 2003-2007 Harvest

Columns: Unit, Herd-Unit, Year, Hunt Type, Dates, Permits Authorized, First Choice Applicants, Permits Issued, Draw Odds, Hunters, Hunter Days, Harvest (Bull, Spike, Cow, Calf, Total), Hunt Success.

Unit	Herd-Unit	Year	Hunt Type	Dates	Permits Auth.	1st Ch. Appl.	Permits Issued	Draw Odds	Hunters	Hunter Days	Harvest					Hunt Success
											Bull	Spike	Cow	Calf	Total	
General																
1	ES	2003	ALS	11/28/-12/01	75	114	75	29.8	71	213	0	0	12	2	14	20
1	ES	2004	ALS	12/17/-12/23	75	68	75	26.5	69	247	0	0	34	4	38	55
1	ES	2005	ALS	12/16/-12/22	75	61	75	55.7	73	266	0	0	21	2	23	32
1	ES	2006	ALS	12/15/-12/21	65	50	65	36	63	233	0	0	25	0	25	40
1	ES	2007	ALS	12/14/-12/20	50	86	50	39.5	46	137	0	0	20	0	20	43
1	RV	2003	ALS	12/05/-12/09	35	29	35	65.5	32	102	0	0	0	0	0	0
1	RV	2003	ALS	12/19/-12/23	35	11	35	100	35	116	0	0	4	0	4	11
1	RV	2004	ALS	12/10/-12/14	30	5	30	100	26	81	0	0	0	0	0	0
1	RV	2004	ALS	12/24/-12/28	30	6	30	100	27	87	0	0	3	0	3	11
1	RV	2005	ALS	12/09/-12/13	30	15	30	86.7	30	118	0	0	3	0	3	10
1	RV	2005	ALS	12/23/-12/27	30	4	30	100	28	100	0	0	3	0	3	11
1	RV	2006	ALS	12/08/-12/12	30	6	28	100	25	89	0	0	8	0	8	32
1	RV	2006	ALS	12/22/-12/26	30	5	30	100	24	75	0	0	0	0	0	0
1	RV	2007	ALS	12/07/-12/11	30	21	30	66.7	30	98	0	0	11	0	11	37
1/2B/2C		2003	ALS	11/28/-12/01	375	1555	375	15.4	355	1010	0	0	163	9	172	48
1/2B/2C		2003	ALS	12/12/-12/15	300	473	300	27.5	274	703	0	0	159	10	169	62
1/2B/2C		2004	ALS	12/17/-12/23	450	1757	450	16.7	434	1455	0	0	246	21	267	62
1/2B/2C		2005	ALS	12/16/-12/22	420	1249	420	21.3	395	1446	0	0	204	19	223	56
1/2B/2C		2006	ALS	12/15/-12/21	105	820	105	7.3	101	271	0	0	64	4	68	67
1/2B/2C		2007	ALS	12/14/-12/20	70	357	70	9.8	67	127	0	0	49	7	56	84

1E	2005	ALS	12/02/-12/08	225	126	225	61.9	216	770	0	0	77	9	86	40
1E	2006	ALS	12/01/-12/07	65	158	65	11.4	63	217	0	0	30	2	32	51
1E	2007	ALS	11/30/-12/06	50	85	50	36.5	49	199	0	0	17	0	17	35
2B	2003	ALS	9/05/-9/14	25	21	25	81	25	142	0	0	2	0	2	8
2B	2003	ALS	9/26/-10/05	25	3	25	100	23	106	0	0	2	0	2	9
2B	2003	ALS	10/10/-10/19	25	2	25	100	25	131	0	0	6	0	6	24
2B	2004	ALS	9/10/-9/19	25	14	25	78.6	25	128	0	0	13	0	13	52
2B	2004	ALS	10/01/-10/10	25	8	25	100	21	81	0	0	6	0	6	29
2B	2004	ALS	10/15/-10/24	25	9	25	100	23	130	0	0	3	0	3	13
2B	2005	ALS	9/09/-9/18	40	18	40	94.4	32	144	0	0	5	0	5	16
2B	2005	ALS	9/30/-10/09	35	2	35	100	32	172	0	0	3	0	3	9
2B	2005	ALS	10/14/-10/23	25	2	25	100	23	111	0	0	2	0	2	9
2B	2005	ALS	12/02/-12/11	20	5	20	40	18	80	0	0	3	5	8	44
2B	2006	ALS	9/15/-9/24	40	9	40	77.8	38	205	0	0	5	2	7	18
2B	2006	ALS	10/06/-10/12	35	2	34	100	32	138	0	0	2	0	2	6
2B	2006	ALS	10/20/-10/29	25	7	25	100	25	148	0	0	0	0	0	0
2B	2006	ALS	12/08/-12/17	20	0	20	-	18	104	0	0	0	0	0	0
2B	2007	ALS	8/24/-9/06	25	4	25	100	21	135	0	0	2	0	2	10
2B	2007	ALS	10/05/-10/14	25	6	25	100	23	94	0	0	6	0	6	26
2B	2007	ALS	10/19/-10/28	20	3	20	100	19	73	0	0	7	3	10	53
2B	2007	ALS	12/07/-12/16	20	6	19	100	18	99	0	0	3	0	3	17
2B	2003	AE	9/05/-9/14	10	58	10	10.3	10	40	8	0	2	0	10	100
2B	2003	AE	9/26/-10/05	10	43	10	4.7	10	44	4	2	0	0	6	60
2B	2003	AE	10/10/-10/19	10	19	10	21.1	10	62	2	0	0	0	2	20
2B	2004	AE	9/10/-9/19	10	126	10	5.6	10	26	6	0	0	0	6	60
2B	2004	AE	10/01/-10/10	10	23	10	4.3	10	37	7	0	0	0	7	70
2B	2004	AE	10/15/-10/24	10	14	10	42.9	9	37	3	0	0	0	3	33
2B	2005	AE	9/09/-9/18	20	78	20	15.4	20	97	4	0	0	0	4	20
2B	2005	AE	9/30/-10/09	15	19	15	26.3	15	33	8	0	0	0	8	53
2B	2005	AE	10/14/-10/23	15	28	15	35.7	11	38	5	0	0	0	5	45
2B	2005	AE	12/02/-12/11	10	13	10	7.7	9	36	1	0	0	0	1	11
2B	2006	AE	-0.375	20	147	20	10.2	20	108	10	0	0	0	10	50
2B	2006	AE	10/06/-10/15	15	31	15	12.9	15	78	4	0	0	1	5	33
2B	2006	AE	10/20/-10/29	15	15	15	33.3	14	87	2	0	0	0	2	14
2B	2006	AE	12/08/-12/17	10	12	10	50	10	25	0	0	0	0	0	0
2B	2007	AE	8/24/-9/06	10	41	9	17.1	9	41	4	4	0	0	8	89

2B		2007	AE	10/05/-10/14	10	37	10	18.9	10	45	8	0	0	0	8	[illegible]
2B		2007	AE	10/19/-10/28	10	11	10	18.2	8	46	4	0	0	0	4	50
2B		2007	AE	12/07/-12/16	10	26	9	15.4	9	45	0	0	2	0	2	22
3A/3C		2005	ALS	10/14/-10/19	380	712	380	32	373	1438	0	0	135	11	146	39
3A/3C		2006	ALS	10/13/-10/18	265	651	265	24.4	250	883	0	0	106	17	123	49
3A/3C		2006	ALS	12/08/-12/14	250	127	250	72.4	233	894	0	0	109	2	111	48
3A/3C		2007	ALS	10/12/-10/17	265	791	264	22.9	258	866	0	0	128	18	146	57
3A/3C		2007	ALS	12/07/-12/13	250	258	250	55.4	250	958	0	0	90	7	97	39
3A/3CE		2003	ALS	10/17/-10/22	250	344	250	47.1	241	924	0	0	67	16	83	34
3A/3CE		2004	ALS	10/22/-10/27	250	477	250	30.8	238	1013	0	0	93	13	106	45
3A/3CE		2005	ALS	10/21/-10/26	300	85	300	80	288	1144	0	0	84	14	98	34
3A/3CE		2006	ALS	10/20/-10/26	300	304	300	55.3	289	1180	0	0	102	17	119	41
3A/3CE		2007	ALS	10/19/-10/25	300	196	300	57.1	280	1047	0	0	129	20	149	53
3AE		2003	ALS	8/08/-8/21	15	17	15	11.8	10	38	0	0	0	0	0	0
3AE		2004	ALS	10/01/-12/31	5	12	5	41.7	5	25	0	0	0	0	0	0
3AE		2005	ALS	8/12/-8/25	5	4	5	25	0	0	0	0	0	0	0	-
3AE		2003	AE	8/08/-8/21	10	88	10	4.5	10	55	3	0	3	2	8	80
3AE		2004	AE	10/01/-12/31	5	56	5	7.1	5	33	2	2	0	0	4	80
3AE		2005	AE	8/12/-8/25	5	43	5	11.6	5	30	0	0	0	0	0	0
3AW/4BN		2003	ALS	10/03/-10/16	75	108	75	46.3	75	353	0	0	24	2	26	35
3AW/4BN		2004	ALS	10/08/-10/21	75	69	75	59.4	75	371	0	0	24	5	29	39
3AW/4BN		2005	ALS	10/07/-10/20	75	63	75	58.7	72	345	0	0	24	0	24	33
3AW/4BN		2006	ALS	10/13/-10/26	75	35	75	82.9	73	395	0	0	11	4	15	21
3AW/4BN		2007	ALS	10/12/-10/25	75	37	75	81.1	68	283	0	0	38	13	51	75
3B		2003	ALS	11/28/-12/04	150	243	150	37.4	148	557	0	0	36	5	41	28
3B		2003	ALS	12/12/-12/18	225	281	225	46.3	221	886	0	0	56	5	61	28
3B		2004	ALS	12/03/-12/09	70	158	70	22.8	64	250	0	0	23	9	32	50
3B		2004	ALS	12/17/-12/23	225	279	225	37.3	217	821	0	0	63	6	69	32
3B		2005	ALS	12/02/-12/08	70	117	70	21.4	66	249	0	0	16	0	16	24
3B		2005	ALS	12/16/-12/22	225	221	225	47.5	214	931	0	0	43	13	56	26
3B		2006	ALS	12/08/-12/14	50	89	50	41.6	47	162	0	0	19	2	21	45
3B		2006	ALS	12/15/-12/31	150	227	150	39.2	147	735	0	0	66	7	73	50
3B		2007	ALS	12/07/-12/13	50	99	50	25.3	46	161	0	0	13	2	15	33
3B		2007	ALS	12/14/-12/30	150	203	150	48.8	142	793	0	0	43	4	47	33
3B	CH	2003	ALS	10/17/-10/22	10	26	10	23.1	8	36	0	0	4	0	4	50
3B	CH	2004	ALS	10/22/-10/27	10	24	10	37.5	9	34	0	0	6	0	6	67

3B	CH	2005	ALS	10/07/-10/13	10	29	10	31	8	29	0	0	4	0	4	50
3B	CH	2006	ALS	10/13/-10/19	10	29	10	31	10	38	0	0	8	0	8	80
3B	CH	2007	ALS	10/12/-10/18	10	30	9	26.7	8	39	0	0	5	0	5	63
3CW		2003	ALS	10/17/-10/22	150	185	150	48.1	148	465	0	0	87	8	95	64
3CW		2004	ALS	10/22/-10/27	150	352	150	26.7	145	482	0	0	63	2	65	45
3CW		2005	ALS	10/21/-10/26	150	135	150	65.9	146	606	0	0	43	6	49	34
3CW		2006	ALS	10/20/-10/26	150	158	150	60.1	148	533	0	0	57	10	67	45
3CW		2007	ALS	10/19/-10/25	150	180	150	43.9	140	550	0	0	60	6	66	47
4A		2003	ALS	11/07/-11/10	150	613	150	19.6	142	416	0	0	65	8	73	51
4A		2004	ALS	11/12/-11/15	300	861	300	22.1	284	809	0	0	107	12	119	42
4A		2005	ALS	11/11/-11/14	250	631	250	30.1	241	714	0	0	72	9	81	34
4A		2006	ALS	10/27/-11/02	170	484	170	22.1	158	556	0	0	69	4	73	46
4A		2007	ALS	10/26/-11/01	100	347	100	22.2	98	372	0	0	33	5	38	39
4B/5A	WI	2003	ALS	10/01/-10/31	10	2	10	100	10	50	0	0	10	0	10	100
4B/5A	WI	2003	ALS	11/01/-11/30	10	2	10	100	10	20	0	0	5	0	5	50
4B/5A	WI	2003	ALS	12/01/-12/31	10	1	10	100	10	30	0	0	5	0	5	50
4B/5A	WI	2003	AE	9/01/-9/30	10	44	10	20.5	10	65	5	0	5	0	10	100
4BN		2007	ALS	8/01/-9/13	15	9	15	77.8	13	90	0	0	0	0	0	0
4BN		2007	ALS	10/12/-11/01	15	1	15	100	15	95	0	0	5	0	5	33
4BN		2007	ALS	11/02/-11/22	10	3	10	100	10	37	0	0	3	0	3	30
4BN		2007	ALS	11/30/-12/31	5	0	5	-	5	13	0	0	1	0	1	20
4BN		2007	AE	8/01/-9/13	5	76	5	3.9	5	67	5	0	0	0	5	100
4BN		2007	AE	11/30/-12/31	5	23	5	0	3	3	0	0	3	0	3	100
5A		2003	ALS	10/17/-10/23	275	907	275	22.3	263	815	0	0	168	8	176	67
5A		2003	ALS	11/28/-12/04	200	193	200	42	193	731	0	0	94	7	101	52
5A		2004	ALS	10/15/-10/21	300	1235	300	18.4	285	1016	0	0	133	29	162	57
5A		2004	ALS	12/03/-12/09	300	363	300	41.3	280	1077	0	0	57	10	67	24
5A		2005	ALS	10/14/-10/20	250	890	250	20.8	247	911	0	0	133	13	146	59
5A		2005	ALS	12/02/-12/08	200	163	200	48.5	195	746	0	0	87	4	91	47
5A		2006	ALS	10/20/-10/26	350	1041	350	26.5	338	1332	0	0	166	11	177	52
5A		2006	ALS	12/01/-12/07	200	319	200	30.7	189	714	0	0	72	6	78	41
5A		2007	ALS	10/19/-10/25	300	763	299	27.9	292	1196	0	0	122	14	136	47
5A		2007	ALS	11/30/-12/06	200	154	200	59.7	190	812	0	0	65	10	75	39
5A/5BN	SM	2004	ALS	10/15/-10/21	50	7	50	100	50	192	0	0	5	3	8	16
5A/5BN	SM	2006	ALS	10/20/-10/26	75	11	75	63.6	73	284	0	0	5	2	7	10
5A/5BN	SM	2007	ALS	10/19/-10/25	75	12	75	100	68	284	0	0	19	0	19	28

5A/5BN	SM	2003	AE	10/03/-10/08	75	324	75	15.4	75	239	32	3	2	0	37	[illegible]
5A/5BN	SM	2004	AE	10/15/-10/21	75	285	75	17.9	73	277	20	0	13	0	33	45
5A/5BN	SM	2005	AE	10/14/-10/20	75	249	75	22.1	75	371	30	2	4	0	36	48
5A/5BN	SM	2006	AE	10/20/-10/26	75	153	75	34	70	305	27	0	0	0	27	39
5A/5BN	SM	2007	AE	10/19/-10/25	75	303	75	18.8	75	318	35	0	0	0	35	47
5BN		2003	ALS	11/28/-12/04	200	323	200	30.3	192	734	0	0	50	8	58	30
5BN		2004	ALS	12/03/-12/09	125	225	125	24	117	367	0	0	55	2	57	49
5BN		2005	ALS	12/02/-12/08	100	144	100	33.3	98	369	0	0	27	4	31	32
5BN		2006	ALS	12/01/-12/07	125	200	125	42	123	462	0	0	45	11	56	46
5BN		2007	ALS	11/30/-12/06	150	177	150	42.9	150	626	0	0	34	2	36	24
5BN	ML	2003	ALS	10/17/-10/22	250	290	250	46.2	244	770	0	0	103	12	115	47
5BN	ML	2004	ALS	10/15/-10/21	200	352	200	38.9	196	709	0	0	83	11	94	48
5BN	ML	2005	ALS	10/14/-10/20	300	406	300	43.1	290	980	0	0	113	28	141	49
5BN	ML	2006	ALS	10/20/-10/26	300	380	298	46.3	288	1044	0	0	104	8	112	39
5BN	ML	2007	ALS	10/19/-10/25	300	401	299	39.9	287	1163	0	0	124	9	133	46
5BN	TT	2003	ALS	10/17/-10/22	200	111	200	87.4	186	725	0	0	46	2	48	26
5BN	TT	2004	ALS	10/15/-10/21	140	81	140	70.4	138	556	0	0	35	0	35	25
5BN	TT	2005	ALS	10/14/-10/20	140	67	140	100	135	541	0	0	16	14	30	22
5BN	TT	2006	ALS	10/20/-10/26	140	59	140	84.7	136	524	0	0	28	6	34	25
5BN	TT	2007	ALS	10/19/-10/25	100	54	100	92.6	95	363	0	0	30	2	32	34
5BN	GV	2003	AE	10/03/-10/08	35	128	35	22.7	35	137	13	2	0	0	15	43
5BN	GV	2004	AE	10/15/-10/21	15	90	15	8.9	15	42	9	0	0	0	9	60
5BN	GV	2005	AE	10/14/-10/20	20	83	20	18.1	18	88	9	2	0	0	11	61
5BN	TT	2003	AE	10/03/-10/08	50	161	50	15.5	48	179	26	0	2	0	28	58
5BN	TT	2004	AE	10/15/-10/21	25	62	25	21	23	86	9	0	5	0	14	61
5BN	TT	2005	AE	10/14/-10/20	20	66	20	21.2	20	74	10	0	2	0	12	60
5BN	TT	2006	AE	10/20/-10/26	70	244	70	16.8	70	298	20	0	6	2	28	40
5BS		2003	ALS	11/28/-12/04	175	457	175	20.4	171	606	0	0	81	4	85	50
5BS		2004	ALS	12/03/-12/09	400	766	400	28.7	384	1176	0	0	165	20	185	48
5BS		2005	ALS	12/02/-12/08	475	785	475	33.2	450	1549	0	0	234	26	260	58
5BS		2006	ALS	12/01/-12/07	520	933	520	33.1	504	1745	0	0	226	12	238	47
5BS		2007	ALS	10/19/-10/25	625	2100	625	21.3	609	2092	0	0	316	29	345	57
5BS		2007	ALS	11/30/-12/06	550	384	549	47.4	521	1859	0	0	154	20	174	33
5BS	HM	2003	ALS	10/03/-10/08	300	842	300	24.8	298	953	0	0	182	17	199	67
5BS	HM	2004	ALS	10/15/-10/21	325	844	325	23.9	313	838	0	0	214	22	236	75
5BS	HM	2005	ALS	10/14/-10/20	400	1077	400	29.2	400	1210	0	0	212	24	236	59

5BS	HM	2006	ALS	10/20/-10/26	430	1178	429	27.2	414	1224	0	0	262	14	276	67
5BS	MM	2003	ALS	10/03/-10/08	150	305	150	33.4	150	474	0	0	62	5	67	45
5BS	MM	2004	ALS	10/15/-10/21	180	275	180	41.1	170	505	0	0	67	16	83	49
5BS	MM	2005	ALS	10/14/-10/20	180	266	180	39.1	169	567	0	0	73	7	80	47
5BS	MM	2006	ALS	10/20/-10/26	190	206	190	47.1	185	752	0	0	38	7	45	24
6A		2005	ALS	12/02/-12/08	485	1444	485	19.8	474	1671	0	0	217	17	234	49
6A		2006	ALS	12/01/-12/07	535	1498	533	18.5	522	1975	0	0	226	23	249	48
6A		2007	ALS	11/30/-12/06	700	1502	699	23.8	672	2700	0	0	247	10	257	38
6A/19A/21	VV	2004	ALS	10/15/-10/21	30	7	30	100	30	93	0	0	3	0	3	10
6A/19A/21	VV	2005	ALS	10/14/-10/20	25	10	25	100	19	63	0	0	10	0	10	53
6A/19A/21	VV	2006	ALS	10/20/-10/26	25	20	25	55	21	73	0	0	6	0	6	29
6A/19A/21	VV	2007	ALS	10/19/-10/25	25	17	25	76.5	21	88	0	0	8	0	8	38
6A/19A/21	VV	2004	AE	11/19/-11/25	15	28	15	28.6	15	83	0	0	0	0	0	0
6A/19A/21	VV	2005	AE	11/18/-11/24	5	24	5	8.3	5	15	3	0	0	0	3	60
6A/19A/21	VV	2006	AE	11/24/-11/30	10	64	10	9.4	10	40	5	0	0	0	5	50
6A/19A/21	VV	2007	AE	11/23/-11/29	10	50	10	14	10	48	3	0	3	0	6	60
6AN/6AS		2004	ALS	12/03/-12/09	505	1520	505	18.9	479	1626	0	0	199	17	216	45
6AS		2003	ALS	10/03/-10/08	475	1873	475	14.8	466	1793	0	0	127	34	161	35
6AW		2004	ALS	10/15/-10/21	35	180	35	13.9	35	113	0	0	20	2	22	63
6AW		2004	ALS	12/03/-12/09	75	70	75	44.3	60	215	0	0	20	3	23	38
6AW		2005	ALS	10/14/-10/20	50	144	50	21.5	50	154	0	0	22	0	22	44
6AW		2006	ALS	10/20/-10/26	55	176	55	18.8	55	187	0	0	22	0	22	40
6AW		2007	ALS	10/19/-10/25	75	137	75	32.8	75	277	0	0	32	4	36	48
6B		2003	ALS	11/28/-12/04	315	450	315	38.7	302	1294	0	0	95	6	101	33
6B		2004	ALS	12/03/-12/09	340	392	340	48.7	319	1100	0	0	112	17	129	40
6B		2005	ALS	12/02/-12/08	400	357	400	61.1	381	1609	0	0	76	11	87	23
6B		2006	ALS	12/01/-12/07	400	357	399	51	388	1530	0	0	101	12	113	29
6B		2007	ALS	11/30/-12/06	450	261	448	76.2	417	1809	0	0	97	14	111	27
7E		2003	ALS	10/03/-10/08	480	792	480	34.7	464	1799	0	0	91	16	107	23
7E		2004	ALS	10/15/-10/21	340	386	340	45.1	334	1358	0	0	75	17	92	28
7E		2005	ALS	10/14/-10/20	325	381	325	51.2	319	1331	0	0	75	10	85	27
7E		2006	ALS	10/20/-10/26	220	225	219	52.9	214	752	0	0	107	8	115	54
7E		2007	ALS	10/19/-10/25	325	373	325	52.5	313	1224	0	0	104	14	118	38
7W		2003	ALS	10/03/-10/08	200	504	200	26	194	690	0	0	99	6	105	54
7W		2004	ALS	10/15/-10/21	350	762	350	31.2	347	1153	0	0	174	21	195	56
7W		2005	ALS	10/14/-10/20	400	783	400	34.6	379	1455	0	0	147	15	162	43

7W	2006	ALS	10/20/-10/26	475	1015	475	32.7	459	1637	0	0	230	33	263	57
7W	2007	ALS	10/19/-10/25	500	1019	499	35.3	486	1791	0	0	225	36	261	54
8	2003	ALS	11/28/-12/04	400	758	400	29.9	389	1612	0	0	104	4	108	28
8	2004	ALS	12/03/-12/09	400	630	400	38.7	388	1594	0	0	97	15	112	29
8	2005	ALS	12/02/-12/08	200	368	200	28.8	188	798	0	0	48	4	52	28
8	2006	ALS	12/01/-12/07	200	383	200	30.8	186	784	0	0	67	4	71	38
8	2007	ALS	11/30/-12/06	200	288	200	40.6	187	809	0	0	52	0	52	28
9	2003	ALS	10/03/-10/08	500	652	500	45.1	490	1880	0	0	193	25	218	44
9	2004	ALS	10/15/-10/21	350	508	350	41.9	334	1233	0	0	160	24	184	55
9	2004	ALS	12/03/-12/09	350	270	350	70.7	340	1297	0	0	164	18	182	54
9	2005	ALS	10/14/-10/20	400	601	400	45.8	386	1574	0	0	149	13	162	42
9	2005	ALS	12/02/-12/08	400	396	400	57.6	388	1443	0	0	167	26	193	50
9	2006	ALS	10/20/-10/26	400	638	400	42	397	1535	0	0	175	27	202	51
9	2006	ALS	12/01/-12/07	400	409	400	54.8	385	1658	0	0	135	10	145	38
9	2007	ALS	10/19/-10/25	400	665	400	37.1	374	1499	0	0	152	20	172	46
9	2007	ALS	11/30/-12/06	400	245	398	72.7	378	1463	0	0	149	13	162	43
10	2003	ALS	10/03/-10/09	600	786	600	43.5	582	2365	0	0	143	26	169	29
10	2003	ALS	11/28/-12/07	600	676	600	49.6	576	3078	0	0	152	14	166	29
10	2004	ALS	10/15/-10/21	700	1138	700	41.2	653	2746	0	0	140	25	165	25
10	2004	ALS	12/03/-12/12	700	581	700	64.5	652	2754	0	0	242	40	282	43
10	2005	ALS	10/14/-10/20	800	904	800	51.1	764	3206	0	0	118	21	139	18
10	2005	ALS	12/02/-12/11	800	746	800	60.6	761	3877	0	0	133	31	164	22
10	2006	ALS	10/20/-10/26	800	841	800	54.3	770	3376	0	0	147	22	169	22
10	2006	ALS	12/01/-12/07	800	559	800	68.7	757	3839	0	0	163	15	178	24
10	2007	ALS	10/19/-10/25	600	646	600	51.7	574	2500	0	0	136	24	160	28
10	2007	ALS	11/30/-12/06	600	289	599	85.8	568	2956	0	0	156	18	174	31
12	2004	AE	9/24/-10/07	20	46	20	39.1	16	109	0	0	0	0	0	0
15A/15B/17A/ 18/19B	2003	AE	10/31/-11/16	20	36	20	27.8	17	107	5	1	3	0	9	53
15A/15B/17A/ 18/19B	2003	AE	11/28/-12/14	30	60	30	20	27	127	12	0	3	0	15	56
15A/15B/17A/ 18/19B	2004	AE	10/01/-10/17	20	287	20	5.9	20	91	13	0	0	0	13	65
15A/15B/17A/ 18/19B	2004	AE	11/05/-11/21	20	71	20	16.9	20	146	3	0	3	0	6	30

15A/15B/17A/ 18/19B		2004	AE	12/03/-12/19	30	116	30	14.7	30	192	12	3	9	0	24	80
15A/15B/17A/ 18/19B		2005	AE	9/30/-10/16	30	338	30	5.6	30	134	20	0	1	0	21	70
15A/15B/17A/ 18/19B		2005	AE	11/04/-11/20	40	44	40	20.5	38	290	13	0	8	0	21	55
15A/15B/17A/ 18/19B		2005	AE	12/02/-12/18	60	140	60	25.7	58	396	28	0	4	0	32	55
15A/15B/17/18/ 19B/20A/20C		2003	ALS	9/26/-10/12	65	32	65	93.8	60	380	0	0	19	3	22	37
15A/15B/17/18/ 19B/20A/20C		2004	ALS	10/01/-10/17	65	45	65	82.2	63	332	0	0	23	2	25	40
15A/15B/17/18/ 19B/20A/20C		2005	ALS	9/30/-10/16	80	67	80	65.7	76	473	0	0	20	4	24	32
15A/15B/17/18/ 19B/20A/20C		2006	ALS	10/20/-12/17	400	133	398	98.5	379	3578	0	0	77	14	91	24
15A/15B/17/18/ 19B/20A/20C		2007	ALS	10/19/-12/16	400	127	398	100	392	4243	0	0	70	11	81	21
15A/15B/17/18/ 19B/20A/20C		2003	AE	9/26/-10/12	20	153	20	8.5	20	87	13	0	4	0	17	85
15A/15B/17/18/ 19B/20A/20C		2006	AE	10/06/-10/19	60	358	60	9.2	56	235	44	0	2	2	48	86
15A/15B/17/18/ 19B/20A/20C		2006	AE	10/20/-12/17	200	781	200	15.7	193	1945	44	7	22	0	73	38
15A/15B/17/18/ 19B/20A/20C		2007	AE	10/05/-10/18	60	255	60	12.5	60	375	32	0	3	0	35	58
15A/15B/17/18/ 19B/20A/20C		2007	AE	10/19/-12/16	200	648	195	16.8	191	1959	57	2	7	4	70	37
17/20A/20C	WS	2004	ALS	10/01/-10/17	15	6	15	83.3	11	66	0	0	2	0	2	18
17/20A/20C	WS	2004	ALS	11/05/-11/21	15	0	15	-	15	108	0	0	6	0	6	40
17/20A/20C	WS	2004	ALS	12/03/-12/19	15	2	15	100	15	83	0	0	0	3	3	20
17/20A/20C	WS	2005	ALS	9/30/-10/16	20	6	20	100	18	88	0	0	5	0	5	28
17/20A/20C	WS	2005	ALS	11/04/-11/20	20	0	20	-	20	142	0	0	2	0	2	10
17/20A/20C	WS	2005	ALS	12/02/-12/18	20	6	20	100	20	147	0	0	3	0	3	15
17/20A/20C	WS	2004	AE	10/01/-10/17	5	15	5	33.3	5	47	3	0	0	0	3	60
17/20A/20C	WS	2004	AE	11/05/-11/21	5	10	5	30	5	37	3	0	0	0	3	60
17/20A/20C	WS	2004	AE	12/03/-12/19	5	9	5	11.1	3	17	0	0	0	0	0	0

17/20A/20C	WS	2005	AE	9/30/-10/16	10	26	10	7.7	10	80	4	0	0	0	4	40
17/20A/20C	WS	2005	AE	11/04/-11/20	10	14	10	28.6	10	76	1	0	0	0	1	10
17/20A/20C	WS	2005	AE	12/02/-12/18	10	2	10	100	8	42	0	2	0	0	2	25
19A		2003	ALS	11/28/-12/07	15	29	15	24.1	15	49	0	0	4	0	4	27
19A		2004	ALS	10/15/-10/24	25	31	25	64.5	25	86	0	0	9	0	9	36
19A		2004	ALS	12/03/-12/12	25	9	25	100	25	88	0	0	5	0	5	20
19A		2005	ALS	10/14/-10/23	40	33	40	72.7	40	207	0	0	9	0	9	23
19A		2005	ALS	12/02/-12/11	20	11	20	72.7	20	106	0	0	0	0	0	0
19A		2006	ALS	10/20/-10/26	50	22	50	100	50	217	0	0	5	0	5	10
19A		2006	ALS	12/01/-12/07	20	10	20	100	13	37	0	0	0	0	0	0
19A		2007	ALS	10/19/-10/25	50	39	50	79.5	45	218	0	0	5	0	5	11
19A		2007	ALS	11/30/-12/06	20	14	20	78.6	16	49	0	0	3	0	3	19
22N		2003	ALS	10/17/-10/23	85	217	85	26.7	83	296	0	0	27	6	33	40
22N		2004	ALS	10/22/-10/28	85	219	85	23.3	83	272	0	0	50	2	52	63
22N		2005	ALS	10/21/-10/27	85	269	85	22.7	83	273	0	0	47	6	53	64
22N		2006	ALS	10/20/-10/26	130	272	130	29.4	126	390	0	0	70	8	78	62
22N		2007	ALS	10/19/-10/25	225	319	225	47.3	220	820	0	0	71	9	80	36
22S		2003	ALS	10/17/-10/23	15	18	15	33.3	15	67	0	0	5	0	5	33
22S		2004	ALS	10/22/-10/28	15	17	15	52.9	15	55	0	0	0	0	0	0
22S		2005	ALS	10/21/-10/27	15	12	15	41.7	15	54	0	0	4	0	4	27
22S		2006	ALS	10/20/-10/26	15	18	15	27.8	14	30	0	0	7	1	8	57
22S		2007	ALS	10/19/-10/25	15	9	15	77.8	15	53	0	0	2	2	4	27
23	CC	2004	ALS	8/06/-8/09	8	13	8	46.2	8	16	0	0	4	0	4	50
23	CC	2004	ALS	8/13/-8/16	8	6	8	83.3	8	24	0	0	2	0	2	25
23	CC	2004	ALS	9/03/-9/06	8	7	8	100	8	18	0	0	3	0	3	38
23	CC	2004	ALS	9/10/-9/13	8	4	8	100	8	13	0	0	5	0	5	63
23	CC	2005	ALS	8/05/-8/08	8	23	8	30.4	8	12	0	0	4	2	6	75
23	CC	2005	ALS	8/12/-8/15	8	1	8	100	8	19	0	0	0	0	0	0
23	CC	2005	ALS	9/02/-9/05	8	8	8	75	5	5	0	0	5	0	5	100
23	CC	2005	ALS	9/09/-9/12	8	33	8	21.2	8	19	0	0	5	1	6	75
23	CC	2006	ALS	8/11/-8/14	8	22	8	36.4	8	11	0	0	8	0	8	100
23	CC	2006	ALS	8/18/-8/21	8	4	8	50	8	17	0	0	5	0	5	63
23	CC	2006	ALS	9/08/-9/11	8	12	8	25	8	14	0	0	7	1	8	100
23	CC	2006	ALS	9/15/-9/18	8	7	8	42.9	8	8	0	0	8	0	8	100
23	CC	2007	ALS	8/10/-8/13	8	22	8	36.4	8	17	0	0	4	0	4	50
23	CC	2007	ALS	8/17/-8/20	8	2	8	50	7	19	0	0	3	1	4	57

23	CC	2007	ALS	9/07/-9/10	8	8	8	62.5	8	23	0	0	3	0	3	38
23	CC	2007	ALS	9/14/-9/17	8	15	8	40	8	24	0	0	6	0	6	75
23N		2003	ALS	10/17/-10/23	30	92	30	19.6	26	108	0	0	11	4	15	58
23N		2003	ALS	12/05/-12/11	90	120	90	36.7	86	349	0	0	36	4	40	47
23N		2004	ALS	10/22/-10/28	30	92	30	19.6	30	88	0	0	19	0	19	63
23N		2004	ALS	12/10/-12/16	90	141	90	36.2	87	332	0	0	38	3	41	47
23N		2005	ALS	10/21/-10/27	30	114	30	21.1	30	127	0	0	7	0	7	23
23N		2005	ALS	12/09/-12/15	90	89	90	38.2	83	341	0	0	25	2	27	33
23N		2006	ALS	10/27/-11/02	30	119	30	18.5	25	80	0	0	10	0	10	40
23N		2006	ALS	12/15/-12/21	90	100	90	44	88	305	0	0	39	0	39	44
23N		2007	ALS	12/07/-12/13	100	126	100	38.1	89	283	0	0	35	5	40	45
23S		2003	ALS	10/17/-10/23	20	23	20	52.2	20	71	0	0	2	4	6	30
23S		2003	ALS	12/05/-12/11	20	66	20	18.2	13	44	0	0	5	0	5	38
23S		2004	ALS	10/22/-10/28	20	33	20	27.3	17	63	0	0	3	0	3	18
23S		2004	ALS	12/10/-12/16	20	6	20	100	16	80	0	0	4	0	4	25
23S		2005	ALS	10/21/-10/27	20	25	20	12	20	77	0	0	7	0	7	35
23S		2005	ALS	12/09/-12/15	20	38	20	28.9	16	60	0	0	4	0	4	25
23S		2006	ALS	10/27/-11/02	20	7	20	14.3	20	120	0	0	4	0	4	20
23S		2006	ALS	12/15/-12/21	20	14	20	42.9	19	76	0	0	4	0	4	21
23S		2007	ALS	10/26/-11/01	20	21	20	33.3	17	77	0	0	3	0	3	18
23S		2007	ALS	12/07/-12/13	20	6	20	100	16	64	0	0	0	0	0	0
24A		2005	ALS	12/01/-12/12	7	2	7	50	7	41	0	0	1	0	1	14
24A		2006	ALS	12/01/-12/12	10	4	10	100	10	63	0	0	3	0	3	30
24A		2007	ALS	11/30/-12/11	10	1	10	100	7	33	0	0	0	0	0	0
24A		2003	AE	12/01/-12/31	5	103	5	2.9	5	29	4	0	0	0	4	80
24A		2004	AE	12/01/-12/12	5	62	5	8.1	5	43	0	0	0	0	0	0
24A		2005	AE	12/01/-12/12	3	21	3	14.3	3	23	0	0	0	0	0	0
24A		2006	AE	12/01/-12/12	5	26	5	11.5	5	28	0	0	3	0	3	60
24A		2007	AE	12/01/-12/12	5	17	5	17.6	5	48	0	0	0	0	0	0
27		2003	ALS	10/17/-10/20	300	960	300	20	286	983	0	0	54	6	60	21
27		2004	ALS	10/22/-10/25	175	656	175	20.7	167	528	0	0	51	3	54	32
27		2005	ALS	10/21/-10/24	140	433	140	19.2	134	435	0	0	25	0	25	19
27		2006	ALS	10/27/-11/02	70	298	70	17.8	68	273	0	0	34	3	37	54
27		2007	ALS	10/26/-11/01	150	349	150	25.8	143	580	0	0	59	7	66	46
27	M	2007	ALS	8/17/-8/23	30	1	28	100	25	101	0	0	3	0	3	12
27	M	2007	AE	8/17/-8/23	20	28	16	32.1	16	59	8	0	0	0	8	50

27S		2005	ALS	8/19/-8/25	50	16	50	100	45	160	0	0	12	0	12	27
27S		2006	ALS	8/18/-8/24	75	39	75	100	69	257	0	0	2	0	2	3
27S		2007	ALS	8/17/-8/23	50	12	50	100	48	191	0	0	4	6	10	21
28/31		2003	ALS	11/21/-12/07	10	11	10	54.5	9	41	0	0	0	0	0	0
28/31		2004	ALS	10/01/-11/14	10	13	10	46.2	10	83	0	0	2	0	2	20
28/31		2004	ALS	11/19/-12/31	10	7	10	57.1	10	140	0	0	0	0	0	0
28/31		2005	ALS	9/30/-11/13	10	10	10	70	10	160	0	0	0	0	0	0
28/31		2005	ALS	11/18/-12/31	10	10	10	50	5	70	0	0	0	0	0	0
28/31/32		2006	ALS	10/06/-11/02	15	7	15	71.4	12	30	0	0	12	0	12	100
28/31/32		2006	ALS	11/03/-11/30	15	1	15	100	13	145	0	0	3	0	3	23
28/31/32		2006	ALS	12/01/-12/31	15	19	15	63.2	15	173	0	0	0	0	0	0
28/31/32		2007	ALS	10/05/-11/01	15	1	12	100	12	129	0	0	3	0	3	25
28/31/32		2007	ALS	11/02/-11/29	25	2	25	100	23	127	0	0	2	2	4	17
28/31/32		2007	ALS	11/30/-12/31	25	2	25	100	21	152	0	0	2	0	2	10
28/31/32		2007	AE	10/05/-11/01	10	43	10	9.3	10	64	6	0	0	0	6	60
CN		2003	ALS	11/07/-11/21	30	29	30	93.1	27	137	0	0	2	0	2	7
CN		2003	ALS	11/07/-11/21	5	23	5	17.4	4	19	0	0	0	0	0	0
CN		2004	ALS	11/08/-11/28	35	19	35	100	33	142	0	0	10	0	10	30
CN		2004	ALS	11/08/-11/28	5	21	5	19	5	10	0	0	2	0	2	40
CN		2004	ALS	10/08/-10/14	5	0	5	-	5	7	0	0	3	0	3	60
CN		2004	ALS	10/08/-10/14	2	3	2	66.7	2	6	0	0	2	0	2	100
CN		2005	ALS	11/07/-11/27	35	18	35	100	35	216	0	0	8	0	8	23
CN		2005	ALS	11/07/-11/27	5	17	5	23.5	5	18	0	0	3	0	3	60
CN		2005	ALS	10/07/-10/13	5	0	5	-	4	13	0	0	2	0	2	50
CN		2005	ALS	10/07/-10/13	2	5	2	0	2	4	0	0	0	1	1	50
CN		2006	ALS	11/24/-12/07	35	15	35	100	32	105	0	0	15	2	17	53
CN		2006	ALS	11/24/-12/07	5	7	5	42.9	5	23	0	0	3	0	3	60
CN		2006	ALS	9/29/-10/05	5	1	5	100	5	18	0	0	5	0	5	100
CN		2006	ALS	9/29/-10/05	2	1	2	100	2	8	0	0	0	2	2	100
CN		2007	ALS	11/23/-12/06	35	14	35	100	35	120	0	0	20	2	22	63
CN		2007	ALS	11/23/-12/06	5	12	5	41.7	4	8	0	0	3	0	3	75
CN		2007	ALS	9/28/-10/04	5	3	5	66.7	5	15	0	0	3	0	3	60
CN		2007	ALS	9/28/-10/04	2	1	2	0	1	5	0	0	1	0	1	100
CN	DV	2003	ALS	10/10/-10/19	14	7	14	42.9	14	74	0	0	4	0	4	29
CN	DV	2004	ALS	10/15/-10/21	14	5	14	60	14	82	0	0	3	2	5	36
CN	DV	2005	ALS	10/14/-10/20	14	3	14	100	14	56	0	0	3	2	5	36

CN	DV	2006	ALS	10/20/-10/26	14	5	14	40	12	40	0	0	6	2	8	67
CN	DV	2007	ALS	10/19/-10/25	14	7	14	57.1	13	46	0	0	7	0	7	54
CN		2004	AE	10/08/-10/14	5	36	5	13.9	5	20	2	0	3	0	5	100
CN		2004	AE	10/08/-10/14	2	32	2	6.3	2	5	1	0	1	0	2	100
CN		2004	AE	10/22/-10/28	25	22	25	63.6	24	61	7	0	7	6	20	83
CN		2004	AE	10/22/-10/28	4	17	4	11.8	2	12	2	0	0	0	2	100
CN		2005	AE	10/07/-10/13	5	45	5	8.9	5	18	1	1	1	0	3	60
CN		2005	AE	10/07/-10/13	2	48	2	4.2	2	6	0	0	0	0	0	0
CN		2005	AE	10/21/-10/27	25	45	25	31.1	25	106	6	0	8	2	16	64
CN		2005	AE	10/21/-10/27	4	27	4	0	4	22	2	0	0	0	2	50
CN		2006	AE	9/29/-10/05	5	51	5	9.8	5	15	5	0	0	0	5	100
CN		2006	AE	9/29/-10/05	2	16	2	6.3	2	4	2	0	0	0	2	100
CN		2006	AE	10/27/-11/02	25	29	25	44.8	25	105	2	5	2	0	9	36
CN		2006	AE	10/27/-11/02	4	10	4	10	4	12	3	1	0	0	4	100
CN		2007	AE	9/28/-10/04	5	57	5	8.8	4	12	2	1	0	0	3	75
CN		2007	AE	9/28/-10/04	2	33	2	6.1	2	4	2	0	0	0	2	100
CN		2007	AE	10/26/-11/01	25	36	25	30.6	23	100	0	0	5	0	5	22
CN		2007	AE	10/26/-11/01	4	8	4	12.5	4	15	0	0	1	0	1	25
CN	DV	2004	AE	10/15/-10/21	7	37	7	18.9	4	11	4	0	0	0	4	100
CN	DV	2005	AE	10/14/-10/20	7	34	7	20.6	7	34	0	0	6	0	6	86
CN	DV	2006	AE	10/20/-10/26	7	33	7	18.2	6	25	2	1	1	0	4	67
CN	DV	2007	AE	10/19/-10/25	7	30	7	20	7	25	6	0	0	0	6	86
Juniors Only																
1/2C		2003	ALS	10/03/-10/06	150	590	150	19	146	366	0	0	87	5	92	63
1/2C		2004	ALS	10/15/-10/18	150	479	150	26.1	146	342	0	0	94	9	103	71
1/2C		2005	ALS	10/14/-10/17	150	444	150	25.9	144	366	0	0	71	15	86	60
1/2C		2006	ALS	10/20/-10/26	65	414	65	10.6	56	154	0	0	48	0	48	86
1/2C		2007	ALS	10/19/-10/25	160	592	160	21.3	158	419	0	0	116	14	130	82
4A		2003	ALS	10/17/-10/22	125	442	125	23.3	125	409	0	0	67	11	78	62
4A		2004	ALS	10/22/-10/27	200	437	200	33.6	194	546	0	0	112	10	122	63
4A		2005	ALS	10/21/-10/26	275	419	275	41.3	256	762	0	0	83	31	114	45
4A		2006	ALS	10/20/-10/26	220	425	220	37.2	214	679	0	0	80	7	87	41
4A		2007	ALS	10/19/-10/25	220	429	220	36.4	207	635	0	0	93	0	93	45
6AN/6AS		2004	ALS	10/15/-10/18	575	1559	575	33.5	567	1424	0	0	291	48	339	60
6AN/6AS		2005	ALS	10/14/-10/17	635	1466	636	37.8	625	1713	0	0	276	20	296	47

6AN/6AS	2006	ALS	10/20/-10/26	765	1581	762	40.5	739	2170	0	0	355	40	395	61
6AN/6AS	2007	ALS	10/19/-10/25	765	1868	761	35	720	2046	0	0	391	45	436	61
6AN/6AW	2003	ALS	10/03/-10/06	700	1542	700	36.3	684	1846	0	0	274	37	311	45
22N	2007	ALS	10/12/-10/18	20	67	20	16.4	18	76	0	0	7	0	7	39
23N	2007	ALS	10/19/-10/25	20	61	20	27.9	18	63	0	0	11	0	11	61
27	2003	ALS	10/03/-10/06	100	170	101	33.5	99	270	0	0	42	9	51	52
27	2004	ALS	10/15/-10/18	100	193	100	32.1	89	243	0	0	35	9	44	49
27	2005	ALS	10/14/-10/17	100	133	100	51.9	98	298	0	0	29	2	31	32
27	2006	ALS	10/20/-10/26	95	160	95	29.4	91	283	0	0	49	6	55	60
Muzzleloader															
4B	2003	ALS	10/17/-10/22	250	189	250	75.7	234	1049	0	0	43	2	45	19
4B	2004	ALS	10/22/-10/27	250	207	250	61.8	240	983	0	0	51	4	55	23
4B	2005	ALS	10/21/-10/26	225	248	225	59.7	213	876	0	0	24	2	26	12
4B	2006	ALS	10/20/-10/26	175	149	175	62.4	171	711	0	0	40	0	40	23
4B	2007	ALS	10/19/-10/25	175	177	175	63.8	170	690	0	0	44	4	48	28
6A	2003	ALS	11/07/-11/12	220	248	220	30.2	211	856	0	0	41	7	48	23
6A	2004	ALS	11/12/-11/17	360	346	360	38.7	340	1362	0	0	112	9	121	36
6A	2005	ALS	11/11/-11/16	300	288	300	41.7	281	1121	0	0	86	17	103	37
6A	2006	ALS	11/17/-11/23	250	328	250	37.8	231	997	0	0	68	2	70	30
6A	2007	ALS	11/16/-11/22	325	294	325	37.8	320	1302	0	0	89	15	104	33
8	2003	ALS	9/26/-10/01	200	232	200	56.9	200	778	0	0	63	15	78	39
8	2004	ALS	10/15/-10/21	200	250	200	52.4	192	729	0	0	69	15	84	44
8	2005	ALS	10/14/-10/20	200	290	200	42.4	190	852	0	0	41	9	50	26
8	2006	ALS	10/06/-10/12	150	181	150	43.1	139	617	0	0	51	3	54	39
8	2007	ALS	9/28/-10/04	150	263	150	34.2	144	619	0	0	55	16	71	49
CN	2007	ALS	10/05/-10/11	25	0	25	-	23	85	0	0	10	0	10	43
CN	2003	ALS	10/18/-10/23	25	5	10	100	10	40	0	0	0	0	0	0
CN	2003	ALS	10/18/-10/23	2	10	2	20	0	0	0	0	0	0	0	-
CN	2004	ALS	9/24/-10/01	25	5	25	100	25	120	0	0	10	0	10	40
CN	2004	ALS	9/24/-10/01	5	4	5	75	5	12	0	0	3	0	3	60
CN	2005	ALS	9/23/-9/30	25	1	25	100	22	108	0	0	6	0	6	27
CN	2005	ALS	9/23/-9/30	5	4	5	0	5	20	0	0	1	0	1	20
CN	2006	ALS	10/06/-10/12	25	0	25	-	20	95	0	0	2	0	2	10
CN	2006	ALS	10/06/-10/12	5	4	5	100	3	13	0	0	0	0	0	0
CN	2007	ALS	10/05/-10/11	5	3	5	66.7	5	30	0	0	1	0	1	20

CN		2005	AE	9/23/-9/30	10	49	10	16.3	10	53	0	0	3	0	3	30
CN		2005	AE	9/23/-9/30	3	60	3	5	2	13	0	0	0	0	0	0
CN		2006	AE	10/06/-10/12	10	31	10	32.3	10	47	3	3	3	0	9	90
CN		2006	AE	10/06/-10/12	3	12	3	25	3	18	0	0	0	0	0	0
CN		2007	AE	10/05/-10/11	10	24	10	25	10	39	3	0	1	1	5	50
CN		2007	AE	10/05/-10/11	3	12	3	25	3	21	0	0	0	0	0	0
Archery																
1		2003	ALS	9/12/-9/25	350	205	350	49.3	344	2253	0	0	49	22	71	21
1		2004	ALS	9/17/-9/30	250	213	250	42.3	236	1519	0	0	63	2	65	28
1		2005	ALS	9/16/-9/29	325	202	325	48	317	2022	0	0	77	4	81	26
1/2B/2C		2006	ALS	9/22/-10/05	170	137	170	27	168	1026	0	0	41	6	47	28
1/2B/2C		2007	ALS	9/14/-9/27	50	51	50	9.8	50	308	0	0	10	2	12	24
3A/3C		2003	ALS	9/12/-9/25	150	57	150	93	148	988	0	0	40	0	40	27
3A/3C		2004	ALS	9/17/-9/30	50	64	50	37.5	47	260	0	0	10	3	13	28
3A/3C		2005	ALS	9/16/-9/29	50	34	50	61.8	50	326	0	0	6	3	9	18
3A/3C		2006	ALS	9/22/-10/05	70	40	70	55	65	406	0	0	19	2	21	32
3A/3C		2007	ALS	9/14/-9/27	70	42	70	42.9	65	427	0	0	14	2	16	25
3B		2003	ALS	9/12/-9/25	30	13	30	69.2	27	192	0	0	8	0	8	30
3B		2004	ALS	9/17/-9/30	15	17	15	47.1	15	128	0	0	0	0	0	0
3B		2005	ALS	9/16/-9/29	15	3	15	33.3	15	98	0	0	2	2	4	27
3B		2006	ALS	9/22/-10/05	15	4	15	100	15	101	0	0	3	0	3	20
3B		2007	ALS	9/14/-9/27	15	22	15	31.8	15	94	0	0	2	0	2	13
4A		2003	ALS	9/12/-9/25	300	224	300	50	290	1961	0	0	62	6	68	23
4A		2004	ALS	9/17/-9/30	200	210	200	32.9	198	1142	0	0	78	8	86	43
4A		2005	ALS	9/16/-9/29	300	202	300	57.9	294	1969	0	0	76	6	82	28
4A		2006	ALS	9/22/-10/05	295	152	295	55.9	289	1972	0	0	64	2	66	23
4A		2007	ALS	9/14/-9/27	80	39	80	17.9	74	392	0	0	36	2	38	51
4B		2003	ALS	9/12/-9/25	150	41	150	92.7	141	936	0	0	20	0	20	14
4B		2004	ALS	9/17/-9/30	100	34	100	58.8	96	724	0	0	2	0	2	2
4B		2005	ALS	9/16/-9/29	75	17	75	100	65	438	0	0	9	0	9	14
4B		2006	ALS	9/22/-10/05	50	24	50	70.8	50	324	0	0	7	0	7	14
4B		2007	ALS	9/14/-9/27	50	24	50	37.5	50	336	0	0	6	2	8	16
4B/5A	WI	2004	ALS	9/01/-9/30	5	1	5	0	0	0	0	0	0	0	0	-
4B/5A	WI	2004	ALS	9/17/-10/14	10	2	10	100	10	20	0	0	0	0	0	0
4B/5A	WI	2004	ALS	10/01/-10/31	5	0	7	-	7	47	0	0	2	0	2	29

4B/5A	WI	2004	ALS	10/14/-11/14	10	0	10	-	10	60	0	0	0	0	0	0
4B/5A	WI	2005	ALS	9/01/-9/29	5	3	5	100	5	43	0	0	0	0	0	0
4B/5A	WI	2005	ALS	9/16/-10/13	10	0	10	-	10	58	0	0	0	0	0	0
4B/5A	WI	2005	ALS	9/30/-10/31	5	0	5	-	5	15	0	0	0	0	0	0
4B/5A	WI	2005	ALS	10/14/-11/13	10	0	10	-	6	26	0	0	0	0	0	0
4B/5A	WI	2004	AE	9/01/-9/30	5	7	5	42.9	3	16	0	0	0	0	0	0
4B/5A	WI	2004	AE	10/01/-10/31	5	7	5	42.9	0	0	0	0	0	0	0	-
4B/5A	WI	2005	AE	9/01/-9/30	5	4	5	75	5	58	0	0	3	0	3	60
4B/5A	WI	2005	AE	9/30/-10/31	5	0	5	-	5	8	0	0	0	0	0	0
5A		2003	ALS	9/12/-9/25	350	207	350	51.7	337	2145	0	0	100	6	106	31
5A		2004	ALS	9/17/-9/30	250	176	250	36.9	241	1591	0	0	82	7	89	37
5A		2005	ALS	9/16/-9/29	300	160	300	65.6	283	1842	0	0	94	11	105	37
5A		2006	ALS	9/22/-10/05	220	166	220	48.2	216	1354	0	0	72	2	74	34
5A		2007	ALS	9/14/-9/27	200	158	200	35.4	195	1332	0	0	60	2	62	32
5BN		2003	ALS	9/12/-9/25	300	54	300	100	292	2085	0	0	33	4	37	13
5BN		2004	ALS	9/17/-9/30	175	56	175	69.6	163	1126	0	0	25	2	27	17
5BN		2005	ALS	9/16/-9/29	250	99	250	69.7	240	1697	0	0	47	4	51	21
5BN		2006	ALS	9/22/-10/05	200	71	200	74.6	196	1301	0	0	46	2	48	24
5BN		2007	ALS	9/14/-9/27	100	55	100	38.2	98	774	0	0	21	0	21	21
5BS		2003	ALS	9/12/-9/25	375	304	375	43.8	367	2572	0	0	111	8	119	32
5BS		2004	ALS	9/17/-9/30	250	246	250	29.3	250	1622	0	0	92	2	94	38
5BS		2005	ALS	9/16/-9/29	350	217	350	44.7	343	2161	0	0	137	7	144	42
5BS		2006	ALS	9/22/-10/05	360	291	359	33.7	348	2290	0	0	102	9	111	32
5BS		2007	ALS	9/14/-9/27	200	192	200	27.6	198	1337	0	0	48	4	52	26
6A/19A/21	VV	2007	ALSS	9/14/-9/27	30	0	30	-	28	173	0	0	2	2	4	14
6A/19A/21	VV	2004	ALS	9/17/-9/30	10	0	10	-	7	17	0	0	0	0	0	0
6A/19A/21	VV	2005	ALS	9/16/-9/29	20	0	20	-	16	78	0	0	0	0	0	0
6A/19A/21	VV	2006	ALS	9/22/-10/05	20	0	20	-	17	94	0	0	0	3	3	18
6A/19A/21	VV	2004	AE	9/17/-9/30	5	11	5	18.2	5	40	1	0	0	0	1	20
6A/19A/21	VV	2005	AE	9/16/-9/29	10	3	10	100	10	82	3	0	0	0	3	30
6A/19A/21	VV	2006	AE	9/22/-10/05	15	27	15	29.6	15	95	1	0	0	0	1	7
6A/19A/21	VV	2007	AE	9/14/-9/27	15	16	15	43.8	15	113	4	0	4	0	8	53
6AN		2003	ALS	9/12/-9/25	400	246	400	67.5	398	2708	0	0	63	7	70	18
6AN		2004	ALS	9/17/-9/30	240	187	240	49.7	236	1484	0	0	38	4	42	18
6AN		2005	ALS	9/16/-9/29	390	183	390	62.8	371	2359	0	0	107	4	111	30
6AN		2006	ALS	9/22/-10/05	450	227	450	61.2	438	2880	0	0	99	2	101	23

6AN	2007	ALS	9/14/-9/27	200	186	199	31.2	193	1291	0	0	58	0	58	30
6AS	2003	ALS	9/12/-9/25	360	187	360	67.4	349	2417	0	0	64	0	64	18
6AS	2004	ALS	9/17/-9/30	250	156	250	49.4	245	1540	0	0	54	5	59	24
6AS	2005	ALS	9/16/-9/29	390	186	390	83.9	384	2719	0	0	66	6	72	19
6AS	2006	ALS	9/22/-10/05	450	192	450	77.1	438	2924	0	0	65	0	65	15
6AS	2007	ALS	9/14/-9/27	200	134	197	50	186	1322	0	0	42	2	44	24
6AW	2003	ALS	9/12/-9/25	75	36	75	69.4	70	557	0	0	5	2	7	10
6AW	2004	ALS	9/17/-9/30	50	29	50	72.4	50	335	0	0	25	5	30	60
6AW	2005	ALS	9/16/-9/29	125	51	125	60.8	122	934	0	0	30	0	30	25
6AW	2006	ALS	9/22/-10/05	150	26	150	100	147	1091	0	0	20	3	23	16
6AW	2007	ALS	9/14/-9/27	50	24	50	54.2	50	403	0	0	9	0	9	18
6B	2003	ALS	9/12/-9/25	100	38	100	65.8	98	696	0	0	17	0	17	17
6B	2004	ALS	9/17/-9/30	50	42	50	50	48	405	0	0	10	0	10	21
6B	2005	ALS	9/16/-9/29	100	46	100	71.7	98	781	0	0	28	2	30	31
6B	2006	ALS	9/22/-10/05	100	42	100	54.8	95	639	0	0	24	0	24	25
6B	2007	ALS	9/14/-9/27	100	32	95	75	91	656	0	0	13	2	15	16
7E	2003	ALS	9/12/-9/25	240	75	240	100	232	1831	0	0	20	0	20	9
7E	2004	ALS	9/17/-9/30	175	53	175	100	171	1138	0	0	19	0	19	11
7E	2005	ALS	9/16/-9/29	235	50	235	100	228	1598	0	0	36	2	38	17
7E	2006	ALS	9/22/-10/05	150	58	150	100	146	848	0	0	35	2	37	25
7E	2007	ALS	9/14/-9/27	75	35	75	42.9	70	498	0	0	13	2	15	21
7W	2003	ALS	9/12/-9/25	160	60	160	71.7	155	1084	0	0	45	2	47	30
7W	2004	ALS	9/17/-9/30	100	53	100	50.9	98	628	0	0	18	5	23	23
7W	2005	ALS	9/16/-9/29	250	74	250	97.3	241	1635	0	0	41	11	52	22
7W	2006	ALS	9/22/-10/05	225	85	225	52.9	221	1417	0	0	61	0	61	28
7W	2007	ALS	9/14/-9/27	100	60	100	41.7	96	683	0	0	9	4	13	14
8	2006	ALS	9/22/-10/05	50	14	50	85.7	50	410	0	0	12	2	14	28
8	2007	ALS	9/14/-9/27	50	32	50	18.8	50	396	0	0	13	0	13	26
10	2003	ALS	9/12/-9/25	125	16	125	100	112	732	0	0	13	0	13	12
10	2004	ALS	9/17/-9/30	100	33	100	75.8	94	704	0	0	4	0	4	4
10	2005	ALS	9/16/-9/29	100	17	100	100	90	523	0	0	21	2	23	26
10	2006	ALS	9/22/-10/05	100	42	94	54.8	90	651	0	0	4	0	4	4
10	2007	ALS	9/14/-9/27	75	18	72	88.9	62	497	0	0	10	0	10	16
11M	2003	ALS	9/12/-9/25	80	58	80	56.9	78	503	0	0	16	0	16	21
11M	2004	ALS	9/17/-9/30	80	30	80	100	78	525	0	0	14	2	16	21
11M	2004	ALS	10/01/-10/14	80	12	80	100	80	628	0	0	12	2	14	18

11M	2005	ALS	9/16/-9/29	80	38	80	65.8	80	595	0	0	28	0	28	35
11M	2005	ALS	9/30/-10/13	80	21	80	100	70	480	0	0	14	0	14	20
11M	2006	ALS	9/22/-10/05	80	41	80	70.7	80	535	0	0	25	0	25	31
11M	2006	ALS	10/06/-10/19	80	9	80	100	77	562	0	0	10	0	10	13
11M	2007	ALS	9/14/-9/27	80	43	79	72.1	77	511	0	0	15	5	20	26
11M	2007	ALS	9/28/-10/11	80	13	79	100	77	656	0	0	16	0	16	21
15A/15B/17A/18/19B	2003	ALS	9/12/-9/25	25	1	25	100	25	197	0	0	1	0	1	4
15A/15B/17A/18/19B	2004	ALS	9/17/-9/30	25	3	25	100	25	211	0	0	2	0	2	8
15A/15B/17A/18/19B	2005	ALS	9/16/-9/30	35	5	35	100	33	208	0	0	2	0	2	6
15A/15B/17A/18/19B	2003	AE	9/12/-9/25	25	66	25	15.2	23	164	4	0	0	0	4	17
15A/15B/17A/18/19B	2004	AE	9/17/-9/30	25	78	25	20.5	23	148	8	0	0	0	8	35
15A/15B/17A/18/19B	2005	AE	9/16/-9/29	35	104	35	18.3	35	228	15	3	0	0	18	51
15A/15B/17/18/19B/20A/20C	2006	ALS	9/22/-10/05	75	8	75	100	70	458	0	0	0	0	0	0
15A/15B/17/18/19B/20A/20C	2007	ALS	9/14/-9/27	75	7	76	100	61	398	0	0	3	0	3	5
15A/15B/17/18/19B/20A/20C	2006	AE	9/22/-10/05	75	163	75	27.6	66	398	23	0	0	0	23	35
15A/15B/17/18/19B/20A/20C	2007	AE	9/14/-9/27	75	141	75	19.1	75	618	26	0	0	0	26	35
22	2003	ALS	11/14/-11/27	85	30	85	86.7	81	591	0	0	16	0	16	20
22	2004	ALS	11/19/-12/02	85	27	85	85.2	85	500	0	0	13	3	16	19
22	2005	ALS	11/18/-12/01	85	26	85	80.8	85	651	0	0	21	4	25	29
22	2006	ALS	11/17/-11/30	100	38	99	73.7	96	608	0	0	11	6	17	18
22	2007	ALS	11/16/-11/29	50	14	50	78.6	50	340	0	0	16	0	16	32
23	2003	ALS	11/14/-11/27	125	32	125	100	123	742	0	0	15	2	17	14
23	2004	ALS	11/19/-12/02	100	15	100	100	95	481	0	0	11	3	14	15
23	2005	ALS	11/18/-12/01	100	25	100	100	95	603	0	0	15	0	15	16
23	2006	ALS	11/17/-11/30	100	24	100	100	97	621	0	0	24	0	24	25
23	2007	ALS	11/16/-11/29	100	18	98	100	95	552	0	0	10	0	10	11

27	2003	ALS	9/12/-9/25	250	80	250	88.8	240	1789	0	0	37	0	37	15
27	2004	ALS	9/17/-9/30	100	55	100	49.1	96	694	0	0	6	0	6	6
27	2005	ALS	9/16/-9/29	175	31	175	100	164	1126	0	0	20	4	24	15
27	2006	ALS	9/22/-10/05	145	54	145	66.7	136	805	0	0	21	2	23	17
27	2007	ALS	9/14/-9/27	150	73	146	58.9	132	907	0	0	20	0	20	15
28	2006	AE	9/22/-10/05	5	12	5	25	5	50	0	0	0	0	0	0
28	2007	AE	9/14/-9/27	5	13	5	30.8	5	38	3	0	0	0	3	60
28/31	2003	AE	9/12/-9/25	5	3	5	66.7	3	20	2	0	0	0	2	67
28/31	2004	AE	9/17/-9/30	5	17	5	23.5	5	15	3	0	0	0	3	60
28/31	2005	AE	9/16/-9/29	5	8	5	37.5	5	23	0	0	0	0	0	0
31/32	2006	AE	9/22/-10/05	5	3	5	66.7	3	25	0	0	0	0	0	0
31/32	2007	AE	9/14/-9/27	5	3	5	100	5	20	0	0	0	0	0	0
CN	2003	ALS	9/12/-9/25	20	2	22	100	16	92	0	0	2	0	2	13
CN	2003	ALS	9/12/-9/25	5	0	5	-	5	41	0	0	0	0	0	0
CN	2004	ALS	8/30/-9/10	17	0	17	-	17	123	0	0	4	0	4	24
CN	2004	ALS	8/30/-9/10	3	2	3	100	3	9	0	0	0	0	0	0
CN	2004	ALS	9/17/-9/23	17	0	17	-	17	79	0	0	0	3	3	18
CN	2004	ALS	9/17/-9/23	3	0	3	-	0	0	0	0	0	0	0	-
CN	2005	ALS	8/29/-9/09	17	0	17	-	17	129	0	0	0	3	3	18
CN	2005	ALS	8/29/-9/09	3	0	3	-	3	34	0	0	0	0	0	0
CN	2005	ALS	9/16/-9/22	17	0	17	-	10	37	0	0	7	3	10	100
CN	2005	ALS	9/16/-9/22	3	0	3	-	3	6	0	0	0	0	0	0
CN	2006	ALS	9/04/-9/14	20	0	20	-	20	70	0	0	3	0	3	15
CN	2006	ALS	9/04/-9/14	3	0	3	-	3	21	0	0	1	0	1	33
CN	2006	ALS	9/15/-9/24	20	0	20	-	20	93	0	0	5	0	5	25
CN	2006	ALS	9/15/-9/24	3	3	3	100	3	28	0	0	2	0	2	67
CN	2007	ALS	8/30/-9/06	20	1	20	100	20	78	0	0	0	2	2	10
CN	2007	ALS	8/30/-9/06	3	0	3	-	3	15	0	0	0	0	0	0
CN	2007	ALS	9/14/-9/23	20	0	20	-	18	91	0	0	2	0	2	11
CN	2007	ALS	9/14/-9/23	3	2	3	100	3	27	0	0	0	0	0	0
CN	2004	AE	8/30/-9/10	10	8	10	87.5	10	65	0	0	0	0	0	0
CN	2004	AE	8/30/-9/10	2	4	2	25	2	6	0	0	0	0	0	0
CN	2004	AE	9/17/-9/23	20	20	20	85	20	83	5	0	0	0	5	25
CN	2004	AE	9/17/-9/23	2	5	2	40	2	12	0	0	0	0	0	0
CN	2005	AE	8/29/-9/09	10	25	12	48	12	67	2	2	0	0	4	33
CN	2005	AE	8/29/-9/09	2	16	2	12.5	2	10	0	0	0	0	0	0

CN	2005	AE	9/16/-9/22	20	26	20	57.7	18	95	5	0	3	0	8	40
CN	2005	AE	9/16/-9/22	2	16	2	12.5	2	8	0	0	0	0	0	0
CN	2006	AE	9/04/-9/14	17	10	17	80	17	95	3	0	0	0	3	18
CN	2006	AE	9/04/-9/14	2	7	2	28.6	0	0	0	0	0	0	0	-
CN	2006	AE	9/15/-9/24	17	26	17	57.7	17	95	3	3	0	0	6	35
CN	2006	AE	9/15/-9/24	2	6	2	33.3	0	0	0	0	0	0	0	-
CN	2007	AE	8/30/-9/06	17	4	16	75	16	92	2	2	2	0	6	38
CN	2007	AE	8/30/-9/06	2	3	2	33.3	2	6	0	0	0	0	0	0
CN	2007	AE	9/14/-9/23	17	32	17	40.6	13	77	4	0	4	0	8	62
CN	2007	AE	9/14/-9/23	2	10	2	20	2	20	2	0	0	0	2	100

BE = Early Bull, B = Bull, ALS = Antlerless, AE = Any Elk, CN = Camp Navajo, CH = CHAMP Hunt, DV = Disabled Veteran

Herd-Units: CC= Canyon Creek, ES (Unit 1) = Escudilla, GV = Grapevine, HM = Hutch Mtn., M=Martinez, ML = Marshall Lake, MM = Melatone Mesa, MZ = Mazatzal, RV = Round Valley, SM = East Sunset/West Sunset/Meteor Crater, TT= Twin Arrows/Two Guns/Grapevine, VV = Verde Valley, WI = Winslow, WS (Unit 5A) = West Sunset, WS (17/20A/20C) = Williamson Valley/Skull Valley/Kirkland Junction.

APPENDIX B

AGE AND GENDER DISTRIBUTION FOR ANTLERLESS ELK HUNTERS
(hunters issued hunt permit-tags), 2008

AGE AND GENDER DISTRIBUTION FOR ANTLERLESS ELK HUNTERS
(hunters issued hunt permit-tags), 2008

SEX

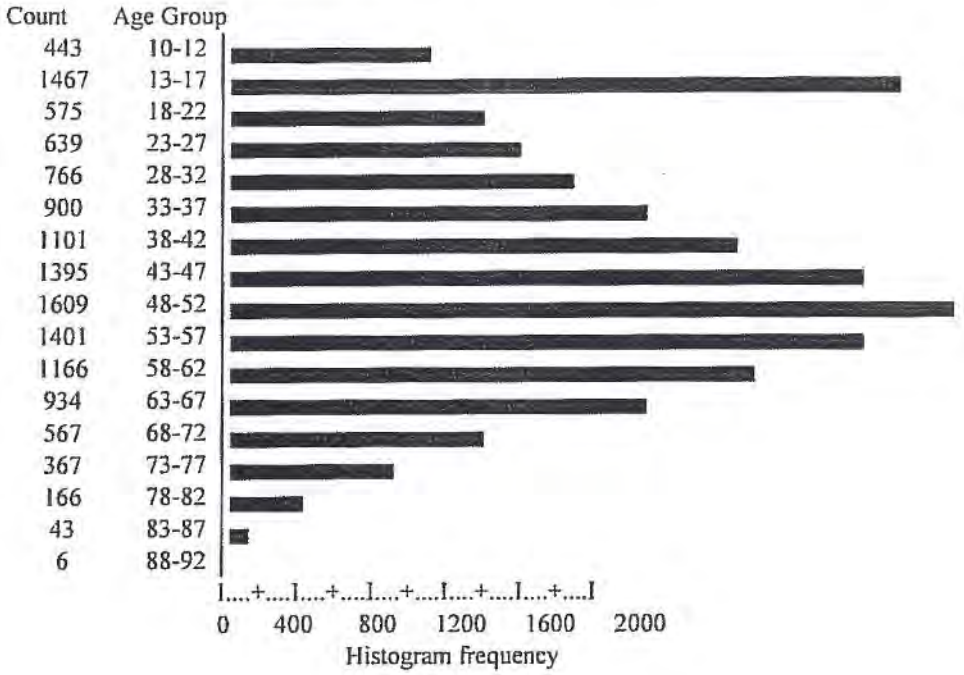
Value Label	Value	Valid Frequency	Cum Percent	Percent	Percent
	UNKNOWN	1287	9.5	9.5	9.5
	FEMALE	1603	11.8	11.8	21.3
	MALE	10655	78.7	78.7	100.0
	Total	13545	100.0	100.0	100.0
		13545	100.0	100.0	100.0

AGE (male, female and unknowns)

Value Label	Value	Valid Frequency	Cum Percent	Percent	Percent
	10	54	0.4	0.4	0.4
	11	163	1.2	1.2	1.6
	12	226	1.7	1.7	3.3
	13	260	1.9	1.9	5.2
	14	325	2.4	2.4	7.6
	15	313	2.3	2.3	9.9
	16	317	2.3	2.3	12.2
	17	252	1.9	1.9	14.1
	18	148	1.1	1.1	15.2
	19	110	0.8	0.8	16.0
	20	107	0.8	0.8	16.8
	21	102	0.8	0.8	17.5
	22	108	0.8	0.8	18.3
	23	124	0.9	0.9	19.3
	24	105	0.8	0.8	20.0
	25	120	0.9	0.9	20.9
	26	139	1.0	1.0	21.9
	27	151	1.1	1.1	23.1
	28	163	1.2	1.2	24.3
	29	135	1.0	1.0	25.3
	30	161	1.2	1.2	26.5
	31	151	1.1	1.1	27.6
	32	156	1.2	1.2	28.7
	33	173	1.3	1.3	30.0
	34	174	1.3	1.3	31.3
	35	180	1.3	1.3	32.6
	36	184	1.4	1.4	34.0
	37	189	1.4	1.4	35.4
	38	207	1.5	1.5	36.9
	39	226	1.7	1.7	38.6
	40	219	1.6	1.6	40.2

41	224	1.7	1.7	41.8
42	225	1.7	1.7	43.5
43	249	1.8	1.8	45.3
44	251	1.9	1.9	47.2
45	292	2.2	2.2	49.3
46	269	2.0	2.0	51.3
47	334	2.5	2.5	53.8
48	345	2.5	2.5	56.3
49	307	2.3	2.3	58.6
50	325	2.4	2.4	61.0
51	319	2.4	2.4	63.4
52	313	2.3	2.3	65.7
53	286	2.1	2.1	67.8
54	283	2.1	2.1	69.9
55	298	2.2	2.2	72.1
56	246	1.8	1.8	73.9
57	288	2.1	2.1	76.0
58	241	1.8	1.8	77.8
59	245	1.8	1.8	79.6
60	235	1.7	1.7	81.3
61	245	1.8	1.8	83.1
62	200	1.5	1.5	84.6
63	176	1.3	1.3	85.9
64	197	1.5	1.5	87.4
65	202	1.5	1.5	88.9
66	197	1.5	1.5	90.3
67	162	1.2	1.2	91.5
68	134	1.0	1.0	92.5
69	142	1.0	1.0	93.6
70	96	0.7	0.7	94.3
71	101	0.7	0.7	95.0
72	94	0.7	0.7	95.7
73	84	0.6	0.6	96.3
74	101	0.7	0.7	97.1
75	71	0.5	0.5	97.6
76	56	0.4	0.4	98.0
77	55	0.4	0.4	98.4
78	53	0.4	0.4	98.8
79	38	0.3	0.3	99.1
80	30	0.2	0.2	99.3
81	30	0.2	0.2	99.5
82	15	0.1	0.1	99.6
83	10	0.1	0.1	99.7
84	10	0.1	0.1	99.8
85	11	0.1	0.1	99.9
86	8	0.1	0.1	99.9
87	4	0.0	0.0	100.0
88	3	0.0	0.0	100.0
91	3	0.0	0.0	100.0
Total	13545	100.0	100.0	100.0

AGE (male, female and unknowns)



AGE (male only)

Value Label	Value	Valid Frequency	Cum Percent	Percent	Percent
	10	35	0.3	0.3	0.3
	11	101	0.9	0.9	1.3
	12	162	1.5	1.5	2.8
	13	188	1.8	1.8	4.6
	14	234	2.2	2.2	6.8
	15	218	2.0	2.0	8.8
	16	228	2.1	2.1	10.9
	17	194	1.8	1.8	12.8
	18	110	1.0	1.0	13.8
	19	79	0.7	0.7	14.5
	20	82	0.8	0.8	15.3
	21	72	0.7	0.7	16.0
	22	68	0.6	0.6	16.6
	23	90	0.8	0.8	17.5
	24	79	0.7	0.7	18.2
	25	93	0.9	0.9	19.1
	26	99	0.9	0.9	20.0
	27	109	1.0	1.0	21.0
	28	116	1.1	1.1	22.1
	29	108	1.0	1.0	23.1
	30	119	1.1	1.1	24.3
	31	111	1.0	1.0	25.3
	32	113	1.1	1.1	26.4
	33	140	1.3	1.3	27.7
	34	142	1.3	1.3	29.0

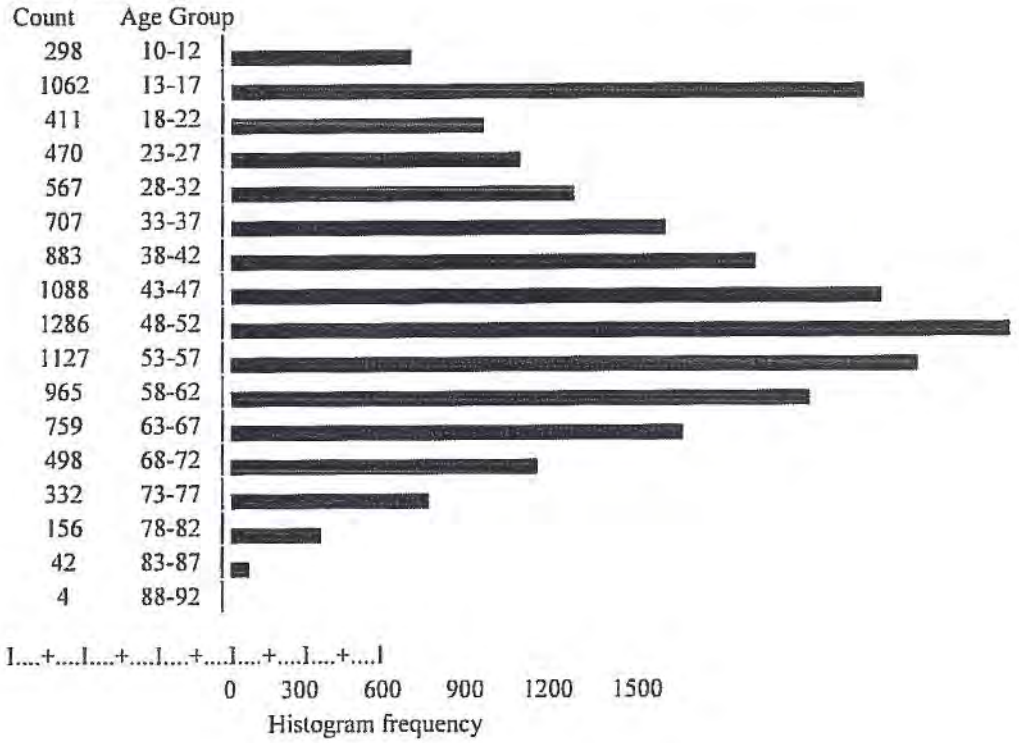
35	142	1.3	1.3	30.3
36	139	1.3	1.3	31.6
37	144	1.4	1.4	33.0
38	160	1.5	1.5	34.5
39	185	1.7	1.7	36.2
40	181	1.7	1.7	37.9
41	178	1.7	1.7	39.6
42	179	1.7	1.7	41.3
43	194	1.8	1.8	43.1
44	199	1.9	1.9	45.0
45	223	2.1	2.1	47.1
46	214	2.0	2.0	49.1
47	258	2.4	2.4	51.5
48	261	2.4	2.4	53.9
49	250	2.3	2.3	56.3
50	259	2.4	2.4	58.7
51	266	2.5	2.5	61.2
52	250	2.3	2.3	63.6
53	230	2.2	2.2	65.7
54	233	2.2	2.2	67.9
55	233	2.2	2.2	70.1
56	194	1.8	1.8	71.9
57	237	2.2	2.2	74.1
58	201	1.9	1.9	76.0

AGE (male only)

Value Label	Value	Valid Frequency	Cum Percent	Percent	Percent
	59	193	1.8	1.8	77.8
	60	200	1.9	1.9	79.7
	61	202	1.9	1.9	81.6
	62	169	1.6	1.6	83.2
	63	140	1.3	1.3	84.5
	64	167	1.6	1.6	86.1
	65	170	1.6	1.6	87.7
	66	155	1.5	1.5	89.1
	67	127	1.2	1.2	90.3
	68	118	1.1	1.1	91.4
	69	116	1.1	1.1	92.5
	70	83	0.8	0.8	93.3
	71	93	0.9	0.9	94.2
	72	88	0.8	0.8	95.0
	73	77	0.7	0.7	95.7
	74	90	0.8	0.8	96.6

75	62	0.6	0.6	97.1
76	53	0.5	0.5	97.6
77	50	0.5	0.5	98.1
78	48	0.5	0.5	98.6
79	37	0.3	0.3	98.9
80	28	0.3	0.3	99.2
81	28	0.3	0.3	99.4
82	15	0.1	0.1	99.6
83	10	0.1	0.1	99.7
84	10	0.1	0.1	99.8
85	11	0.1	0.1	99.9
86	7	0.1	0.1	99.9
87	4	0.0	0.0	100.0
88	3	0.0	0.0	100.0
91	1	0.0	0.0	100.0
Total	10655	100.0	100.0	100.0

AGE (male only)



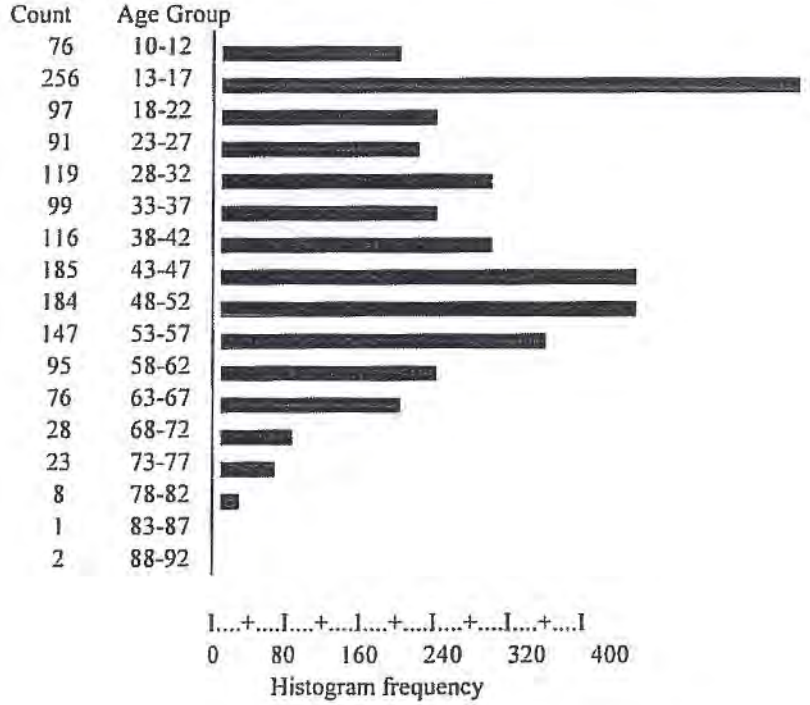
(female only)

Value Label

Value	Valid Frequency	Cum Percent	Percent	Percent
10	10	0.6	0.6	0.6
11	31	1.9	1.9	2.6
12	35	2.2	2.2	4.7
13	47	2.9	2.9	7.7
14	57	3.6	3.6	11.2
15	59	3.7	3.7	14.9
16	52	3.2	3.2	18.2
17	41	2.6	2.6	20.7
18	25	1.6	1.6	22.3
19	19	1.2	1.2	23.5
20	15	0.9	0.9	24.4
21	16	1.0	1.0	25.4
22	22	1.4	1.4	26.8
23	17	1.1	1.1	27.8
24	13	0.8	0.8	28.6
25	17	1.1	1.1	29.7
26	25	1.6	1.6	31.3
27	19	1.2	1.2	32.4
28	27	1.7	1.7	34.1
29	17	1.1	1.1	35.2
30	23	1.4	1.4	36.6
31	26	1.6	1.6	38.2
32	26	1.6	1.6	39.9
33	18	1.1	1.1	41.0
34	14	0.9	0.9	41.9
35	22	1.4	1.4	43.2
36	21	1.3	1.3	44.5
37	24	1.5	1.5	46.0
38	26	1.6	1.6	47.7
39	25	1.6	1.6	49.2
40	18	1.1	1.1	50.3
41	22	1.4	1.4	51.7
42	25	1.6	1.6	53.3
43	35	2.2	2.2	55.5
44	30	1.9	1.9	57.3
45	40	2.5	2.5	59.8
46	28	1.7	1.7	61.6
47	52	3.2	3.2	64.8
48	50	3.1	3.1	67.9
49	33	2.1	2.1	70.0
50	37	2.3	2.3	72.3
51	33	2.1	2.1	74.4
52	31	1.9	1.9	76.3
53	34	2.1	2.1	78.4
54	30	1.9	1.9	80.3
55	34	2.1	2.1	82.4
56	26	1.6	1.6	84.0
57	23	1.4	1.4	85.5

58	23	1.4	1.4	86.9
59	20	1.2	1.2	88.1
60	17	1.1	1.1	89.2
61	20	1.2	1.2	90.5
62	15	0.9	0.9	91.4
63	16	1.0	1.0	92.4
64	15	0.9	0.9	93.3
65	15	0.9	0.9	94.3
66	19	1.2	1.2	95.4
67	11	0.7	0.7	96.1
68	5	0.3	0.3	96.4
69	7	0.4	0.4	96.9
70	6	0.4	0.4	97.3
71	6	0.4	0.4	97.6
72	4	0.2	0.2	97.9
73	5	0.3	0.3	98.2
74	7	0.4	0.4	98.6
75	6	0.4	0.4	99.0
76	2	0.1	0.1	99.1
77	3	0.2	0.2	99.3
78	3	0.2	0.2	99.5
79	1	0.1	0.1	99.6
80	2	0.1	0.1	99.7
81	2	0.1	0.1	99.8
86	1	0.1	0.1	99.9
91	2	0.1	0.1	100.0
Total	1603	100.0	100.0	100.0

AGE (female only)



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
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REGION II, 3500 S. LAKE MARY ROAD, FLAGSTAFF, AZ 86001

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ROBERT D. BROSCHEID

November 2, 2009

Micah Grondin
Kaibab National Forest
Williams Ranger District
742 S Clover Road
Williams, AZ 86046

Dear Mr. Grondin,

Per the Kaibab National Forest's request, the Arizona Game and Fish Department (Department) estimated the number of hunter harvested elk, mule deer and pronghorn retrieved using a motorized method on the Williams District of the Kaibab National Forest. The Department used 2008 harvest data for Game Management Units (GMU) 7W, 8 and 10. This is the most current data available at this time.

It is important to note that these MBGRs are currently occurring by mostly 1 trip with a vehicle, typically an ATV, with very little to no evidence that it occurred.

Tables below: Estimated number of motorized big game (elk, mule deer and Pronghorn) retrievals occurring annually on the Williams District of the Kaibab National Forest by Game Management Unit for 2008.

Game Management Unit	Elk harvested in 2008	Estimated proportion of elk harvested on the Kaibab National Forest	Estimated proportion of elk retrieved by motor vehicle	Estimated number of motorized elk retrievals
7W	452	0.67	0.9	273
8	419	0.85	0.9	321
10	564	0.20	0.9	102
Total	1435	-	-	696

Game Management Unit	Mule deer harvested in 2008	Estimated proportion of mule deer harvested on the Kaibab National Forest	Estimated proportion of mule deer retrieved by motor vehicle	Estimated number of motorized mule deer retrievals
7	208	0.35	0.9	66
8	86	0.75	0.9	58
10	132	0.09	0.9	11
Total	426	-	-	135

Game Management Unit	Pronghorn harvested in 2008	Estimated proportion of pronghorn harvested on the Kaibab National Forest	Estimated proportion of pronghorn retrieved by motor vehicle	Estimated number of motorized pronghorn retrievals
7	44	0.15	0.9	6
8	23	0.5	0.9	10
10	63	0.15	0.9	9
Total	130	-	-	25

It is estimated that currently 696 of the 1435 legally harvested elk in GMU 7W, 8 and 10 are retrieved using a motor vehicle each year on the Kaibab National Forest. A high percentage of those elk are antlerless elk. The Department uses antlerless elk hunts to manage the overall number of elk within a GMU and on the Kaibab National Forest. It is predicted that elimination of MBGR will greatly reduce the number of antlerless elk harvested, making the management of the elk population more difficult. An interesting note is that 60% of the elk are harvested in November and December.

The Department appreciates the opportunity to work with the Williams District of the Kaibab National Forest.

Sincerely,

Larry Phoenix, Field Supervisor
Flagstaff Region
3500 S. Lake Mary Rd.
Flagstaff, AZ 86001
928-774-7901
lphoenix@azgfd.gov

cc:Ron Sieg, Regional Supervisor
Sarah Reif, Habitat Program Manager