

Situation Analysis

For the Virginia Department of Game and Inland Fisheries

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Situation Analysis for VDGIF

The purpose of the situation analysis is to identify and understand Virginia's lapsed hunters, those sportsman or woman who purchased a hunting license in either 2006 or 2007 but not in 2008. From a marketing perspective, it's effective to work at re-recruiting lapsed hunters because they already possess the interest, skills and equipment necessary to enjoy hunting.

In addition, the situation analysis will examine a variety of factors associated with lapsed hunters, hunter satisfaction, recruitment and retention, license buying trends and the agency's efforts to service its license buying customers.

The situation analysis is a snapshot of the current situation and an evaluation of what strengths, weaknesses, opportunities and threats exist that may impact efforts to market hunting to those who did not purchase a hunting license in 2008.

Virginia Department of Game and Inland Fisheries Overview

Mission Statement:

- The Department of Game and Inland Fisheries is to manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

Agency Vision:

- Vision for the Department of Game and Inland Fisheries is to be recognized as the national innovative leader in fish and wildlife management, recreational boating and the provision of wildlife related recreation. The agency will be recognized for its strong contribution to the economic health of the Commonwealth because of the recreational services provided. The overall quality of life benefits derived from healthy, diverse wildlife populations and the habitats that sustain them will be recognized and appreciated by the citizens. Funding for the agency will have broad support among the citizens and be adequate to support superior program delivery. The agency management will be recognized for its use of appropriate management techniques that highlight quality performance of employees and service delivery, maintain exemplary accountability and demonstrate consistent efficiency gains through business process improvements. Employees will be consistently and fairly recognized and compensated. Career growth and continuous training will be used to continuously improve agency operations.

Hunter Numbers/License Buying Trends

- Approximately a quarter million people purchased a Virginia license in 2008 allowing them to hunt big game, small game, predators, varmints, upland birds and migratory birds. Their reasons for going afield to hunt range from enjoying time spent with family, connecting with nature, taking game and experiencing the excitement and relaxation of hunting. However, that number has been trending downward since the 1980s.
- While Virginia's population has increased 45% from 5.3 million to 7.7 million since 1980, the number of Virginia hunters decreased 38%. Hunters represent a smaller segment of the population. 6.7% of Virginians purchased a license in 1980, 2.9% did in 2006.
- In Virginia in 1980 about 374,000 individuals bought hunting licenses. In 1991, 309,000 individuals bought hunting licenses. In 2008, 242,434 people bought hunting licenses. (Virginia Department of Game and Inland Fisheries 1992).
- Declines in hunting are blamed on urbanization, decline in rural culture and contact with nature, reduced access to land and other types of recreation that compete with hunting.

Total License Sales from FY 2005 to FY 2010 (Provided by VDGIF)

| License Type | 2005* | 2006* | 2007* | 2008** | 2009** | 2010*** |
|-----------------------------------|---------|---------|---------|---------|---------|---------|
| Combination License Totals | 15,802 | 14,905 | 17,456 | 16,131 | 15,262 | 14,566 |
| Basic Hunting License Totals | 258,754 | 251,033 | 243,295 | 229,963 | 226,955 | 212,766 |
| Bear, Deer, Turkey License Totals | 246,314 | 238,494 | 232,127 | 223,300 | 227,337 | 219,480 |
| Grand Totals | 520,870 | 504,432 | 492,878 | 469,394 | 469,554 | 446,812 |

*License sales include manual paper and automated electronic license sales

** Automated electronic license sales only

***Fiscal Year 2010 is incomplete. Totals as of Jan. 12, 2010

License Sales Review from 2006-2008 (Southwick Associates)

In July 2009, Southwick Associates evaluated three years worth (2006-2008) of VDGIF's electronic license sales system data to provide information about types of licenses hunters purchased and age, gender and other characteristics of those purchasing annual licenses.

Total License Sales

- 2006 – 246,249
- 2007 – 238,634
- 2008 – 242,434

*Note: Most license buyers purchase the Bear, Deer and Turkey License.

*See table "Hunters, by type of license"

2008 License Sales by Gender

- Female – 10,985 (4.5%)
- Male – 231,449 (95.5%)

*Note: Nearly a third of Virginia hunters don't buy licenses because they hunt on their own land. This may include women who would hunt on family land.

*See table "2008 License Sales by Gender"

2008 License Buyers by Age

- Under 18 – 22,808 (9.4%)
- 18-24 – 25,474 (10.5%)
- 25-34 – 35,639 (14.7%)
- 35-44 – 49,287 (20.3%)
- 45-54 – 52,002 (21.4%)
- 55-64 – 36,040 (14.9%)
- 65+ - 21,184 (8.8%)

*See table 2008 License Buyers by Age

*See map "All Combination License Purchasers"

*See map "All Muzzleloader License Purchasers"

*See map "All Archery License Purchasers"

*See map "All Waterfowl License Purchasers"

All License Buyers 2006-2008, by 10 Largest Tapestry Segments

- Salt of the Earth - 45,787 (12.6%)
- Rooted Rural - 32,576 (9%)
- Green Acres - 28,337 (7.8%)
- Southern Satellites - 25,993 (7.2%)
- Rural Bypasses - 21,565 (5.9%)
- Exurbanites - 18,897 (5.2%)
- Midland Crowd - 16,407 (4.5%)
- Rural Resort Dwellers - 14,163 (3.9%)
- Sophisticated Squires - 14,048 (3.9%)
- Midlife Junction - 12,914 (3.6%)

*See table "All License Buyers 2006-2008, by 10 Largest Tapestry Segments"

*See "Tapestry Long Descriptions"

*See maps featuring distribution of Tapestry Segments in Virginia

All License Buyers 2006-2008, by Urbanization

- Urban Centers - 2,209 (0.6%)
- Metro Cities - 33,931 (9.3%)
- Urban Outskirts - 27,068 (7.4%)
- Suburban - 100,382 (27.6%)
- Small Towns - 14,118 (3.9%)
- Rural - 185,729 (51.1%)

*See table "All License Buyers 2006-2008, by Urbanization"

*See License Fees table

*See table "License Fees for deer gun hunting in Virginia compared to surrounding states"

Hunter Numbers (2006 National Survey of Hunting, Fishing and Wildlife Associated Recreation)

- 413,000 resident and nonresident hunter in Virginia
 - 353,000 resident hunters (86%)
 - 60,000 nonresident hunters (14%)
- 360,000 Virginians hunted in the US (98 percent hunted in home state)
 - 45,000 Virginians hunted in other states (13%)
 - In addition to the 360,000 Virginians that hunted, its estimated 31,000 were 6 to 15 years old.
- Number of people who hunted in Virginia
 - 1996 (392,000)
 - 2001 (355,000)
 - 2006 (413,000)
- Type of hunting
 - Total (all hunting) 413,000
 - Big Game (362,000)
 - Deer (345,000)
 - Bear (40,000)
 - Wild Turkey (120,000)
 - Small Game (142,000)
 - Rabbit (70,000)
 - Quail (sample size too small)
 - Squirrel (78,000)
 - Migratory Birds (64,000)
 - Waterfowl (29,000)
 - Dove (38,000)
 - Other Animals (78,000)
 - Includes groundhog, raccoon, fox, coyote, crow, prairie dog, etc

Lapsed Hunter Information

Virginia's Lapsed Hunter Demographics 2006-2008 (Southwick Associates)

In July 2009, Southwick Associates also evaluated three years worth (2006-2008) of VDGIF's electronic license sales system data to provide information about numbers of lapsed hunters and age, gender and other characteristics of those who lapsed. Tapestry demographic data allowed those license buyers to be divided into market or demographic segments.

A lapsed hunter is a sportsman or woman who purchased a hunting license in either 2006 or 2007 but NOT in 2008. A report produced by Southwick Associates looked at three tiers of lapsed hunters in Virginia.

- Tier one lapsed hunters purchased licenses in 2006 and 2007

- Tier two lapsed hunters purchased a license in 2007
- Tier three lapsed hunters purchased a license in 2006

Number of lapsed hunters

- 119,174 lapsed hunters were identified in Virginia from Year 2006 – 2008 representing 1/3 of total licensed buyers.

Lapsed hunters (by tiers)

- Number of tier one lapsed hunters - 31,244 (10%)
- Number of tier two lapsed hunters - 32,434 (10.4%)
- Number of tier three lapsed hunters - 55,496 (17.7%)

*See table “Lapsed hunters (who purchased a license in 2006 or 2007)”

Lapsed hunter by gender (2006-2007)

- Female -7,834 (55%)
- Male - 111,340 (37.3%)

*See table “Lapsed hunter by gender”

Lapsed hunter by age group

- Under 18 – 7,840 (36.5%)
- 18-24 – 16,394 (46.9%)
- 25-34 – 19,109 (41%)
- 35-44 – 22,362 (35.5%)
- 45-54 – 22,449 (33.9%)
- 55-64 – 15,401 (33.3%)
- 65+ - 15,619 (45.7%)

*Note: Almost 88 percent of the 18 to 34 year-old age group lapsed.

*See table “Lapsed hunter by age group”

Lapsed hunter by tapestry segment

- Tapestry is built from Census Bureau data and other sources. Using these data, Tapestry creates descriptions of America’s neighborhoods based on the common attributes of their inhabitants. These attributes range from the general age and income to the purchasing preferences of the neighborhoods.

*Note: Traditional hunters in rural areas are less likely to lapse. Those lapsing are nontraditional hunters who are moving in and out of hunting.

*See table “Lapsed hunter by tapestry segment”

*See maps related to “Hunters who lapse”

*See table “Lapsed hunter by tier”

Lapsed Hunters 2008 by License Type

- Basic & Limited – 91,995 (36.2%)
- Sportsman – 1,143 (23.1%)
- Bear, Deer, Turkey – 88,470 (34.3%)
- Waterfowl – 7,298 (28.7%)
- Muzzleloading – 32,115 (24%)
- Archery – 6,072 (21.2%)

- Crossbow – 15,258 (24.1%)

*See table “Lapsed Hunters 2008 by License Type”

2009 Virginia Lapsed Hunter Focus Groups Results (Responsive Management)

- In September and October of 2009, three focus groups were conducted with Virginia lapsed hunters - one in Rocky Mount, one in Chesapeake, and one in Dumfries. There were 10 to 12 participants in each group that were interviewed about their opinions and perceptions regarding hunting in Virginia.
- Most focus group participants were lapsed hunters but not ex-hunters; many had taken breaks from hunting in 2008 because of health or time-related reasons but said they planned to purchase or had already purchased licenses for the 2009-2010 season.
- Another major reason for not purchasing a license in 2008 was that the participant had hunted in private land during that year and was not required to have a license.
- Several major reasons for not purchasing a hunting license or for hesitating before purchasing a license were discussed in each focus group. First, perceived opportunity is a huge factor: many focus group participants said that if more hunting opportunities were available in Virginia there would likely be more licenses sold.
- A number of group participants advocated allowing Sunday hunting for this reason: with a substantial percentage of hunters holding full time jobs that preclude the chance to hunt on weekdays, Sunday is seen as a missed opportunity to hunt, discouraging many potential license purchasers.
- Many hunters in the focus groups also spoke of a steady decline in available private land to hunt. They said private landowners are reluctant to grant hunters permission to use their properties, and many hunters are equally reluctant to approach landowners to inquire about permission.
- Participants also indicated they perceive much of the available public hunting land to be overcrowded with other hunters and, as a result, somewhat dangerous to use.
- Another issue mentioned in connection with available land is hunting access, which some said was being restricted as a result of agencies acting to cut down on four-wheeler/ATV trail use. Access for disabled and elderly hunters was also said to be lacking in many parts of Virginia.
- Hunting clubs are a source of frustration for many hunters; this is primarily due to the perception they monopolize hunting lands and may even influence owners of adjacent private lands to not let hunters use their properties.
- According to many hunters in the groups, though the current state of the economy is a factor in determining how much they are willing to spend on accessories and equipment, the economy is not a deciding factor in whether they will hunt (i.e., whether they will purchase a license). Being lifelong hunters, most people in the focus groups said that if they want to hunt, they will find the money to purchase a license. This is not to say, however, that focus group participants voiced uniform satisfaction over the costs of licenses and the privileges attached to them; on the contrary, many said that licenses could be simplified or made cheaper, or that certain combination licenses could be offered at better rates.

2009 Virginia Lapsed Hunter Telephone Survey Results (Responsive Management)

In November 2009, Responsive Management conducted a telephone survey of Virginia's lapsed hunters. The survey was conducted for the National Shooting Sports Foundation in cooperation with the Virginia Department of Game and Inland Fisheries (VDGIF) as part of a larger study regarding messages to encourage lapsed hunters to purchase a hunting license.

Hunting Behaviors and Purchase of Hunting Licenses

- Nearly half of the "lapsed" hunters in the sample (46%) had hunted on private land in Virginia during the 2008-2009 season and thus did not require a license. 53% had not hunted on private land and can be assumed to have not hunted in Virginia during the 2008-2009 season.
- 17% of Virginia hunters reported hunting out of state, most commonly in North Carolina, West Virginia, Maryland or Pennsylvania.
- The most commonly hunted species among the lapsed hunters are deer (89%) small game/upland game birds (41%) and wild turkey (36%).
- The most common hunting companions are friends (38%), the respondent's son (20%), the respondent's father (13%), and/or the respondent's brother (11%).
- During the past 4 years at least 57% but no more than 64% had purchased a hunting license. The most commonly purchased licenses are the basic hunting license (78%) and the bear, deer and turkey license (70%).
- Regarding plans to purchase a hunting license for the 2009-2010 season, 34% indicate being very likely to do so (along with the 9% who indicated that they had already bought one. 24% indicated they were not at all likely to purchase a license.
- Respondents were evenly divided about the most important reasons they hunted: 32% did so to primarily be with family and friends, 32% did so primarily to be close to nature, and 28% did so primarily for the meat.

Satisfaction and Dissatisfaction with Hunting in Virginia, and Constraints to Hunting Participation

- Most hunters (87%) report being satisfied with their hunting experience in Virginia.
- The top factors that took away from respondents' enjoyment of hunting were related to time, access and cost.
- The most important reasons Virginia hunters did not buy a license were they hunted on private land and did not need a license (25%), lack of time (25%), work obligations (17%), family obligations (11%) and personal health (11%).
- 30% of those not at all likely to purchase a 2009-2010 Virginia hunting license indicated the top reason is they will hunt on private land. Three other reasons were named by more than 10% of this "not at all likely" group include: personal health (15%), not being interested (13%), and lack of time (12%).

Motivations for Purchasing a Hunting License

- The top themes that respondents said would make them very likely to purchase a Virginia hunting license are as follows:
 - Being reminded that it is important to continue the hunting heritage of this country (48%).
 - Being reminded that hunting helps people relax (43%).

- Being reminded that hunting helps people learn the value of wildlife and natural resources (42%).
- Being reminded that hunting provides an environmentally friendly source of food (41%).
- Being reminded that hunting helps people connect with nature (38%).
- Being reminded that purchasing a hunting license helps fund conservation of wildlife (37%).
- Being reminded that hunting is peaceful (also 37%).
- The top action items are:
 - Having a family license made available (34%).
 - Being able to attend an outdoors show free with the purchase of a Virginia hunting license (30%).
- A majority of Virginia hunters (78%) support VDGIF providing reminders to hunters to encourage them to purchase a license.
- Those who indicated that they would be very likely to purchase a 2009-2010 Virginia hunting said the primary purpose (other than to hunt or to hunt Virginia) was to:
 - Hunt on public land in Virginia
 - Connect with nature/to escape/to relax
 - Take children hunting
 - Take an adult family member hunting
 - Obtain meat
 - Take a friend hunting.

Reactions to Words, Phrases and Messages as They Relate to Hunting

- At least 90% of survey respondents indicated the following words and phrases had a positive association with hunting:
 - Connect to nature (96%)
 - Quality time (94%)
 - Fun (94%)
 - Get away from it all (93%)
 - Relaxing (92%)
 - Memories (91%)
 - Excitement (91%), and
 - Heritage (90%)
- Survey respondents indicated three of the messages stand out, each with at least half of respondents saying it would be very effective:
 - Make memories. Take someone special hunting. (54%)
 - Hunting - protect the heritage, protect the environment. (54%)
 - Hunting bonds family. Share the experience. (50%)
- Six more messages rank above the rest, all with 44% or more saying it would be very effective at getting them to buy a Virginia hunting license:
 - Connect to nature, hunt Virginia. (47%)

- Hunters, the original stewards of the land. (46%)
- Hunting connects family and friends. (46%)
- Buy a license, take a friend, make memories. (45%)
- Purchase a Virginia hunting license and help conserve wildlife. (44%)
- Connect with nature, connect with family. Hunt Virginia. (44%)

An Examination of Target Markets

- Z-score testing revealed an association between the group that purchased licenses only 1-2 years and the group answering “Not at all likely” to purchasing a 2009-2010 Virginia hunting license. They also were positively associated with having children and indicating that a lack of time took away from hunting enjoyment.
- Hunters who had purchased licenses 3-4 years were associated with answering “Very likely” to purchasing a 2009-2010 license.
- Respondents who hunted 3 or 4 of the 4 years before 2008-2009 had a positive association with having no children. In addition, this group had positive associations with four messages:
 - Purchase a Virginia hunting license and help conserve wildlife.
 - Hunting bonds family. Share the experience.
 - Hunting season only comes once a year - don't miss it.
 - Hunt Virginia and reduce your carbon footprint with a local, organic source of meat.
- Respondents who reported being “Very likely” to buy a hunting license for the 2009-2010 season had positive associations with the following messages:
 - Buy your license, help conserve the environment.
 - Hunters, the original stewards of the land.
 - Hunting is a source of quality, naturally replenished food.
 - Hunting is an investment with many returns.
 - Buy your license, help conserve habitat.
 - Hunting - protect the heritage, protect the environment.
 - Hunting - it's our nature.
 - Purchase a Virginia hunting license and help conserve wildlife.
 - Need a break? Peace awaits you in Virginia's outdoors. Go hunting.
 - Hunting bonds family. Share the experience.
 - Hunting season only comes once a year - don't miss it.
 - Hunt Virginia and reduce your carbon footprint with a local, organic source of meat.
 - Hunting - make memories, fund conservation. Buy a license.
 - Hunting - pass on the tradition. It starts with a license.
 - Big/small game, big fun. Hunt Virginia.
 - Connect with nature, connect with family. Hunt Virginia.
- Respondents who answered that they were “Not at all likely” to purchase a 2009-2010 hunting license were strongly associated with having at most a high school diploma, a household income of less than \$40,000 per year, and having purchased a Virginia hunting license only 1 or 2 years in the 4 years preceding the 2008-2009 season.

Why Hunters Lapse (The Future of Hunting and Shooting Sports Literature Review, 2006)

- Data from the 2001 National Survey of Fishing, Hunting, and Wildlife Associated Recreation showed family or work obligations (36%) and not enough time (30%) were the top reasons why hunters did not hunt as much as they would have liked to in the U.S. in 2001 (see graph that follows) (U.S. Department of the Interior, Fish and Wildlife Service 2002).
- In a Responsive Management (2005c) study for the National Shooting Sports Foundation, a substantial percentage of respondents (41%) said that they have a problem finding time to go hunting, and these results are consistent with previous studies conducted by Responsive Management. The overwhelming majority of those who indicated that they have a problem finding time to hunt cited work (81%) as a reason for their not finding time to hunt (see graph that follows). Family (29%) was another important reason. Family has grown as a constraint to hunting participation relative to previous studies (Responsive Management 2005c).
- The survey for the NSSF asked about 14 factors that may or may not have been constraints to respondents' hunting participation. The survey first asked how much of a problem the factor was 5 years ago; the survey then asked whether the factor had become a greater or lesser problem in hunting participation now. Hunting access and access-related issues were problems 5 years ago and remain problems now, with indications that the problems related to access may be worsening. The factors that had the highest percentages saying that they were problems 5 years ago were access to hunting land (10% said this was a major problem 5 years ago; 41% said this was a major or minor problem 5 years ago), crowded hunting areas (10% major; 41% major or minor), less landowner cooperation (8% major; 36% major or minor), and concern over anti-hunting activists (7% major; 34% major or minor). The top factors deemed to have become greater problems recently were access to hunting land (56% said this has become a much or somewhat greater problem), less landowner cooperation (46%), crowded hunting areas (41%), concern over anti-hunting activists (36%), and less game in general (36%) (See graph that follows). Note that this last factor, "less game in general," also had the highest percentage saying that this had become a lesser problem. The trends analysis based on comparisons to previous studies showed lower percentages in the 2005 study, relative to the 2000 study, saying that access to hunting, crowded hunting areas, anti-hunting attitudes or activities, cost of firearms, and distance needed to travel had become much or somewhat greater problems. Higher percentages said license costs and hunting regulations were greater problems in hunting (Responsive Management 2005c).

Initiation/Recruitment/Retention

According to the Future of Hunting and Shooting Sports Phase 1 Literature Review (2006):

- It takes a hunter to make a hunter. Almost all hunters are initiated into hunting before the age of 20, usually by a father or other father-figure, in a rural environment. Hunters who are initiated in this manner hunt more frequently and are more likely to hunt avidly throughout their lifetime.

- The presence of other family members who hunt, amount of exposure to hunting, and the presence of the “hunting culture” are of utmost importance in hunting initiation. Rarely does the hunting initiation occur outside these parameters. There are few other paths of initiation and no other paths of even relatively the same significance. Hunters come from hunting families and hunting families produce hunters (Responsive Management 1995b).
- Those who are introduced to hunting by friends usually try out or “experiment” with hunting as young adults, lack strong familial support, and are more likely to quit hunting after a few years, particularly if their peer group changes and individuals who introduced them to hunting are no longer regular social contacts. These persons tend to be more transient in their hunting participation because they lack the learned, strongly held personal identity with the activity and tend to have fewer, less consistent and weaker sources of social reinforcement for participation.

Retention Versus Recruitment

Based on their extensive research, Applegate et al. (1984:67) recommended that:

- Efforts to reduce juvenile mortality, that is, the number of newly recruited hunters who drop out, would be more profitable than efforts to recruit new hunters to sustain a state’s hunter population. As hunter retention increases, the number of new recruits should show a corresponding increase, since recruitment is a relatively constant percentage of the active hunter population.
- Langenau and Mellon (1980:76) offered insight into programs to increase hunter numbers based on a tailored approach to (1) young hunters who have continued to hunt, (2) returning hunters, and (3) hunters recruited at later ages:
- Hunters who begin at early ages might be encouraged to strengthen the traditional aspects of their hunting. The family nature of hunting should be emphasized for this group. Wildlife education programs might emphasize topics like game recipes, management of private lands for game, and other utilitarian aspects of wildlife. Regulations should be carefully reviewed to determine any conflicts with traditions. In turn, traditions should be studied to identify the need for new regulations such as party permits and giving preference to landowners.
- To increase the number of hunters it would also be necessary to increase the size of the second group: those individuals who stop hunting for a number of years and then return to the sport later in life. These individuals are influenced strongly by the process of urbanization, and because urban hunters probably are most likely to appreciate the nonconsumptive aspects of hunting, programs that emphasize these qualities of the hunt would be most effective. Wildlife education might be directed at the intellectual rather than utilitarian level. Facts about wildlife biology, rules of hunting, and principles of sportsmanship should be well received by this group. Regulations designed to increase the quality of hunting, such as limiting hunter numbers to divide resources among hunters, would be useful.

Hunting Continuation

Tentative Findings and Interpretations:

- Three types of principal motivations influence the decision to continue hunting after being initiated into the activity: achievement, affiliative, and appreciative.
- The importance of family, recreation, and fraternal components of hunting change over time.
- Among family-supported hunters, the family component is very important in preteens, is less important through the teens and early 20s, when the fraternal component gains in importance, and then increases in importance slightly from the late 30s on. The recreation component steadily rises in importance from preteens through the early 40s, then drops quickly to a moderate level, but nevertheless appears to be of primary importance in the middle-adulthood of family-supported hunters.
- Among family-nonsupported hunters, the fraternal component takes a sharp rise in importance in the early 20s and a sharp fall in the late 20s. The importance of the recreation component experiences a reciprocal decline and rise; generally, the recreation component is more important than the fraternal component for family-nonsupported hunters.
- Among family-supported hunters, from age 8-14, interest in small game hunting is greater than that in big game hunting, but from age 16 on the reverse is true, until the 50s, when interest is about equal. Participation in small game hunting is greater than that in big game hunting from age 8 to 14, similar from age 16 to 30, and thereafter participation in big game hunting is greater.
- Among family-nonsupported hunters, interest in both small game and big game hunting peaks in the early 30s, and thereafter declines gradually; at no age does interest in small game hunting exceed that in big game hunting. Family-nonsupported hunters have greater participation levels in big game than small game hunting, especially between the ages of 34 to 40.

Multiple Motivations for Hunting Satisfaction

- Traditionally, hunting satisfaction was viewed and measured as a function of actual game bagged or number of days spent in the field (Crissey 1971 and Decker et al. 1980). However, research during the past 30 years has indicated that hunters are motivated by and derive many satisfactions from hunting, in addition to bagging game.
- Decker et al. (1984) note that the more varied a hunter's motivations are, the more likely they are to continue hunting.
- According to the report, *House Bill 38 and Future Directions for the Department of Game and Inland Fisheries*, lack of time is the biggest constraint to hunters' satisfaction; very few hunters felt that poor behavior of other hunters or safety concerns detracted from their satisfaction. In addition, hunters were highly satisfied with the department, its efforts to provide hunting opportunities, and how well the department incorporates hunters' wants and needs into management of wildlife.

Hunting License Promotion/Marketing Efforts

The VDGIF has worked on many fronts to create and inform hunters about opportunities in Virginia and make licenses readily available.

- License availability is promoted through annual regulation booklets, VVDGIF website and the customer service phone bank.

- Licenses can be purchased via toll free customer service number (1-866-721-6911), Web site www.HuntFishVA.com, Bi-weekly newsletter (25,000 subscribers), monthly four-color wildlife magazine, more than 650 VDGIF license agents (Bass Pro, Wal-Marts, Mom and Pop retailers) located statewide, VDGIF headquarters, and various trade shows (2009 Virginia Sportsmen Show over \$34,000 in hunting license sales) fairs, county and state tourism centers, educational and outdoor events.
- VDGIF introduced a new license purchasing methods in 2006 when they went to a fully automated licensing method that allows for a great control of data gathering and record keeping. VDGIF also has created specialized licenses, such as youth, lifetime, combo and bonus licenses.
- VDGIF reaches out to various trade shows when attendance numbers support the effort. For example, in 2009 Virginia Sportsmen Show there were 25,000 in attendance with more than \$34,000 in hunting license sales.
- Virginia supports youth hunting through special Youth Hunting Licenses (under age 12 and ages 12-15). The new Apprentice Hunting License that was introduced July 1, 2008, allows a person to go hunting for two years without having to take a Hunter Education Course under the direct supervision of a person who is 18 years and who successfully completed a Hunter Education Course. Beginning in July 1, 2009 VDGIF, through legislative approval, created a special bulk license to assist special groups like NWTF with large hunting related programs and for people serving in the military. VDGIF also offers a two special youth hunting days for deer and turkey.
- The new Apprentice Hunting License was and is still actively marketed through a high profile media campaign, through VDGIF publications, license agents, press releases, magazine and newspaper articles, television and radio and direct mailings.
- The sale of resident and nonresident licenses are promoted in the more than 500,000 annual hunting booklets that are printed and distributed beginning July of each year as well as the outlets where they are sold.
- VDGIF promotes hunting opportunities and license sales through a good working relationship with traditional media outlets (newspapers, television, radio and outdoor writers) and targets them with information concerning hunting opportunities. The Department's Web site also receives over 1.5 million direct hits each year and utilizes streaming video and special features weekly to attract interest to hunting. A bi-weekly newsletter goes out to 25,000 subscribers and the Department's flagship publication Virginia Wildlife magazine reaches more than 40,000 paid subscribers each month.

Hunting License Price

- VDGIF increased license fees in 1988, when the cost went from \$7 to \$12 with an additional .50 cents going to agents (\$12.50). VDGIF raised license fee again in 2006 when the cost went from \$12 to \$17. VDGIF added a \$1 fee that went to license sales agents (\$18.00). License sales dropped slightly with both increases.
- License fees could increase in the future
- License fee are set in code, which prevents using special pricing or discounts.
- The agency promotes the value of buying a hunting license in a press release titled: *Fall Hunting is Underway Hunting: an affordable, healthy activity that benefits all Virginians*

| 2009 Virginia Hunting License Fees | Cost |
|------------------------------------|------|
| Special Stamps/Permits | |

| | |
|---|--------|
| Forest Service Stamp | \$4 |
| State Duck Stamp | \$10 |
| Lifetime Disabled | |
| Service-connected Totally & Permanently Disabled Veteran | \$15 |
| Totally & Permanently Disabled Resident Special Lifetime | \$10 |
| Special lifetime trout license to fish in designated stocked trout waters | \$10 |
| Lifetime Service-Connected Totally and Permanently Disabled Resident | \$10 |
| Resident Hunting | |
| Sportsman's License (16 years and older) | \$120 |
| Hunting License (16 years and older) | \$18 |
| Senior (Age 65 and over) | \$7 |
| County/City Hunting License/16 and older residence only | \$11 |
| Apprentice Hunting License | \$11 |
| Junior Hunting (12 to 15; optional for under 12) | \$8.50 |
| Junior Combination Hunting License (under 16 years old) | \$16 |
| Bear, Deer, Turkey License (age 16 years or older) | \$18 |
| Junior Bear, Deer, Turkey License (under 16 years old) | \$8.50 |
| Antlerless Deer Stamp | \$18 |
| Archery License | \$18 |
| Crossbow License | \$18 |
| Muzzleloading License | \$18 |
| Nonresident Hunting Fees | |
| Hunting License (16 years or older) | \$86 |
| 3-Day Trip License (16 years or older) | \$46 |
| Apprentice Hunting License | \$21 |
| Youth Hunting License (under age 12) | \$13 |
| Youth Hunting License (ages 12-15) | \$16 |
| Youth Combination Hunting License (under 16 years old) | \$31 |
| Nonresident Lifetime Hunting License | \$505 |
| Hunting (Shooting) Preserve | \$18 |
| Bear, Deer, Turkey License (age 16 years or older) | \$66 |
| Bear, Deer, Turkey License (age 12-15 years old) | \$16 |
| Bear, Deer, Turkey License (Under 12 years of age) | \$13 |
| Antlerless Deer Stamp | \$31 |
| Archery License | \$31 |
| Crossbow License | \$31 |
| Muzzleloading License | \$31 |
| Resident Bonus Deer Permit (2 antlerless tags) | \$18 |

| | |
|---|-------|
| Nonresident Bonus Deer Permit (2 antlerless tags) | \$31 |
| Lifetime Hunting Licenses | |
| Junior Lifetime Hunting License (under age 12) | \$250 |
| Age 12-44 | \$255 |
| Age 45-50 | \$205 |
| Age 51-55 | \$155 |
| Age 56-60 | \$105 |
| Age 61-64 | \$55 |
| Age 65 and over | \$15 |

Safety and Skills Training

Each year, VDGIF reaches thousands of constituents, providing training to encourage hunter safety and skill building. These courses are customized to reach a variety of constituents.

Hunter Education Program

- Since Hunter Education became mandatory for 12-15 year old and first-time hunters in 1988, there has been a 25% reduction in the rate of hunting-related shooting incidents. While hunting is safe in comparison to other common sports, each injury can cause extreme physical and emotional pain for the victim, the shooter, and their families. Hunter Education courses are designed to teach hunting safety, principles of conservation, and sportsmanship. A dedicated cadre of 750 trained volunteer instructors works with 160 Conservation Police Officers to teach 14,000 students each year. A program milestone was reached in 2007 when Hunter Education in Virginia exceeded half-a-million graduates of the course.

Hunter Education Summary

- About 300 classes are offered statewide every year, primarily within a month prior to major hunting seasons.
- Courses are offered in each county, with rare exceptions. The agency tries to offer more classes wherever there is more demand, based on class size and number of calls.
- Average class size is probably 40-50, but it ranges from less than 10 to about 200.
- Attendance has been stable at about 14,000 each year for the last five years. It has decreased since 10 years ago.
- Courses are promoted with the help of partners such as conservation organization events, retailers, state parks, shooting ranges, etc.
- At this time, no course evaluation is conducted nor do they track license buying habits of attendees. They are working on an on-line registration system for classes. When that is in place, it would be possible to track license purchases.
- Licenses (including apprentice licenses) are not offered for sale at courses as a convenience.

Other Educational Efforts

- Becoming an Outdoors Woman® - This program is designed primarily for women whose outdoor exposure has been limited. The three-day events (Friday through Sunday) offer a variety of 4-hour classes geared towards beginners. Participants can choose from shooting sports, angling, boating and non-consumptive educational courses. The courses offered may include, but are not limited to, intro to shotgun, rifle, archery, hunting techniques for game species, fly-fishing, bass fishing, boating, camping, wilderness survival, and outdoor cooking.

Weekends are held in rustic yet comfortable settings. Participants in the Becoming an Outdoors Woman® programs must be at least 18 years of age.

- The first BOW in Virginia was held in 1995 by VDGIF and was called “Virginia Women in the Outdoors.” It was scheduled as an educational weekend event targeting turkey hunting sessions. Since then, VA BOW has grown to offer more than 30 skills based educational sessions to women ages 18 and above.
 - Events held 1 to 2 times per year with 60 to 120 attendees at each event.
- Virginia Outdoors Weekend - Designed to give the entire family a chance to add to their outdoor experience, the Virginia Outdoors Weekend is a three-day event (Friday through Sunday) taught at various locations across the state. The focus is on learning outdoor skills through hands-on courses such as, but not limited to, intro to skeet shooting, rifle, archery; hunting techniques for game species, fly-fishing, basic fishing, boating, camping, wilderness survival, outdoor cooking, and many others.
 - Events held 1 time every other year with 50 to 75 attendees at each event.
 - Mother & Daughter Outdoors - The Mother & Daughter Outdoors program is designed primarily for women. It provides an excellent opportunity for anyone 9 years of age and above to learn outdoor skills usually associated with hunting and fishing, but useful in a variety of outdoor pursuits. The courses offered at this 2-3 day event are similar in content to the BOW and the Virginia Outdoors Weekend events. Children under 16 must be accompanied by an adult.
 - Mother Daughter Outdoors was established in 2001 to include females 9 years of age and above. Educational sessions consistent with BOW and include a youth emphasis with increased hands-on skills and curriculum.
 - Events held 1 time every other year with 100 to 150 attendees at each event.

Women in the Outdoors - Co-sponsored with the National Wild Turkey Federation, this day program is designed primarily for women 14 and over. Participants can enjoy learning new skills, meeting people with similar interests, and getting involved in outdoor activities. These events offer classes that range from fly fishing, shooting sports, and turkey hunting to mountain biking, canoeing, and bird watching. Events are held throughout the state.

- Events held 1 to 6 times every other year with 6 to 25 attendees at each event.

Educational Hunting Workshops - An educational experience focused on knowledge and skill development for specific species. Educational workshops may cover squirrel, dove, upland bird, waterfowl, turkey or deer. Workshops are designed in partnership with hunting organizations and community groups. They are designed for youth, novice and disabled hunters. See brochures and flyers for specific details or visit the website for current listings and locations.

- Educational Hunting Workshops for species specific educational programs involving classes on safety, habitat, biological info on game animal, live fire range skills training and an opportunity to hunt were organized in 1994.
- Events held 4 to 12 times every other year with 10 to 20 attendees at each event.

- Educational Angling Workshops and Other events - An educational experience focused on knowledge and skill development for specific fish species. Workshops are designed in partnership with angling organizations and community groups. They are designed for youth and novice anglers. See brochures and flyers for specific details or visit the website for current listings and locations.
- National Archery in the Schools – NASP - A standardized archery program designed to train educators the NASP curriculum so it can be taught to youth from elementary to high school. Training is conducted in 8 hours.
 - 12 to 15 certification trainings a year, one state tournament per year. 10 to 20 attend certification trainings while 300 youth participate in the tournament.
- Family Outdoors Day
 - Family Outdoors Weekend began in 1999. Emphasis on family involvement in the outdoors for the weekend or for the day events.
 - Events held 1 to 2 times every other year with 50 to 300 attendees at each event.
- Virginia Women Outdoors
 - Events held 2 to 4 times every other year in various regions (eastern shore, Northern VA, central VA) with 40 to 60 attendees at each event.
- Best Practices Workshop for Recruitment and Retention - Coren Jagnow, VVDGIF, attended the Best Practices for Recruitment and Retention Training Workshop scheduled for September 21-23, 2009 in Nashville, Tennessee. The one-and-a-half day workshop provided instruction in the effective use of the best practices and the accompanying *Best Practices Workbook*. This "train-the-trainer" format allows attendees to deliver best practices throughout the agency and to the agency's partners, providing maximum reach to end users in Virginia.

Education Event Summary:

Attendance:

- Most events fill up, though the economy has had a significant impact on BOW. It is the most expensive event.
- Initially, slow attendance first year. Once event was established, a waiting list was created to handle extra registrations for the events. Trend held consistent for 10 years. Currently this year's trend is that events will meet minimum number required to hold event. The exception was a few WITO's and single day events have been canceled due to insufficient registrations this year. Feedback was economy and individuals losing their jobs seemed to impact attendance to larger fee events. Attendance to free events and low cost events remain high.

Promotion:

- VDGIF Agency website, partner websites, flyers, "mailing list" email announcement, Virginia Wildlife magazine, word of mouth, newspapers. Events are posted 60-90 days prior to event.

Partners:

- NASP, Conservation groups such as Waterfowl USA, Virginia Waterfowlers, Izaak Walton League, Sporting Goods Stores, Wal-Mart, 4-H, Local Parks and Recreation, YMCA, Boy Scouts / Girl Scouts, Youth Camps, Shooting Clubs, hunting preserves, Fire and Police jurisdictions.

Course Evaluation:

- VDGIF has individual course evaluations for large events and comprehensive event evaluations for the one day workshops.

License Buying Habits of Attendees:

- VDGIF is working on the capability of doing so with a creation of an event database to track involvement of participant with educational sessions and license sales.
- Prior to the agency transitioning to “point of sale,” they sold licenses at events. However, they are no longer able to offer this service. Event participants are aware they need their license for specific events.

Factors Affecting License Sales

Access

According to the Future of Hunting and Shooting Sports Phase 1 Literature Review (2006):

- One important reason that hunters increasingly report as a cause of dissatisfaction is poor hunting access. Access problems negatively affect hunters by taking away from their enjoyment of hunting and/or causing them to hunt less often. Previous studies have shown that access is a leading reason for hunter dissatisfaction, and that not enough available hunting access is a significant factor that influences hunters’ decision to stop hunting.
- In a study conducted by Responsive Management (1995a) under a grant from the United States Fish and Wildlife Service, access was the top rated cause of hunter dissatisfaction among active hunters out of a possible 25 causes of dissatisfaction posed to hunters: 46% of hunters said that not enough access took away from their hunting satisfaction. Twenty-nine percent of ex-hunters interviewed said that not enough access influenced their decision not to hunt.
- Overall, access is a bigger problem on private lands than it is on public lands. In general, access to private lands has a lower rating than access to public lands, and the rating of private land access is not improving relative to the rating of public land access.
- According to the 2006 National Survey of Fishing, Hunting and Wildlife Associated Recreation, the majority of Virginia hunters pursue game on private lands at least some of the time.
 - Total of public land hunters in Virginia (140,000, of which 128,000 were state residents)
 - Public lands only (31,000)
 - Public and private lands (109,000, of which 105,000 were state residents)
 - Total of private land hunters in Virginia (376,000, of which 324,000 were state residents)
 - Private lands only (267,000, of which 219,000 were state residents)
 - Private and public lands (109,000, of which 105,000 were state residents)

A significant number of Virginia hunters report access to private lands is poor and getting worse, according to House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000):

- 35% of hunters felt access to private lands is poor and 53% felt access to private lands has gotten worse over the past 5 years. This is especially significant because 64% of hunters hunted exclusively on private land and 86% of hunters hunted at least some of the time on private land.
- 16% of hunters felt access to public lands is poor (and 25% said fair).
- 23% felt access to public lands has gotten worse over the past 5 years while more than twice that many (53%) felt that access to private hunting lands had gotten worse in the past 5 years. The research suggests that hunters feel that private land access is inadequate due to limited access rather than the existence of too few private hunting lands.
- 70% or more of hunters felt the department should provide much more or somewhat more effort on (1) encouraging private landowners to open access to their land for more hunting use, (2) acquiring more state-owned land to increase opportunities to hunt, and (3) improving habitats on public land to increase the number of animals to hunt.
- 83% of Virginia landowners allowed hunting on their lands. 19% of Tidewater region landowners (who allowed hunting on their lands) charged a fee. Less than 5% of landowners in the rest of the state who allowed hunting charged a fee.
- Legal liability was a major concern for 51% Virginia landowners in considering whether to allow outdoor recreation on their property.
- Prior to taking this survey, 83% of Virginia landowners were totally unaware of Virginia's recreational use statute.
- Regarding the level of protection offered by Virginia's Recreational Use Statute, duty of care and not charging a fee help support Virginia's Recreational Use Statute and address landowners fears in relationship to trespassing, allowing license hunters on their property, and other invitees.
- Not only is knowledge by landowners about VRS poor, having to appear in court and paying possible fees associated with a court trial are still a concern.

Development in Virginia is decreasing the availability of hunting land.

- Development stats indicate from 1960 to 2000, total farm acreage decreased 36%
- Development has decreased average parcel sizes. Land ownership turnover is another factor related to subdivision of land. In addition, new landowners may have negative views of hunting.
- Access to private land is decreasing. Timber companies are beginning to prohibit hunting deer with dogs due to complaints. Demands for public lands are increasing by a variety of users.
- VDGIF is the largest landowner in Virginia and offers of 200,000 acres of public access, but VDGIF surveys (Virginia Survey of Hunter Harvest, Effort, and Attitudes 2005-2006 and 2007-2008) show a greater majority of hunters still hunt on private land.

VDGIF has worked to increase public land acres open to hunting.

- Legislative approval over the last five years has added an additional three Wildlife Management Areas increasing hunter accessibility. These opportunities were promoted

in press releases, VDGIF website, Virginia Wildlife magazine, Outdoor Report, newspaper articles and the development of quota hunts on all three WMAs.

- The *Cavalier Wildlife Management Area* is located in the far southeastern corner of Virginia, in the City of Chesapeake. The management area is comprised of two parcels, the 750-acre Dismal Swamp tract adjoining the Dismal Swamp and the 3,800-acre Cavalier tract that abuts the North Carolina state line near Route 17.
- *Featherfin Wildlife Management Area* covers nearly 2,800 acres in Prince Edward, Appomattox, and Buckingham Counties.
- All of *Merrimac Farm WMA's* 301 acres lie within Prince William County.
- Additional acres in public hunting land through WMAs have increased over the last five years offering additional hunting opportunities.
- Individual landowners such as state parks, national refuges and private companies promote their own lands. These areas are considered to strengthen hunting access and increase (case by case) hunting opportunities.
- In addition, VDGIF leases additional land in southwest Virginia from coal mining companies. Example 19,000 acres in Dickenson County, Page 48 Hunting Regulation Booklet.
- VDGIF indicated there is no evidence such as surveys or actual data collected by VDGIF or other sources that indicates a perception that access on private land is getting worse.

2009 Lapsed Hunter Focus Groups Results (Responsive Management)

- In September and October of 2009, three focus groups were conducted with Virginia lapsed hunters - one in Rocky Mount, one in Chesapeake, and one in Dumfries. There were 10 to 12 participants in each group that were interviewed about their opinions and perceptions regarding hunting in Virginia.
- Family permits, licenses with workshops or scheduled hunts attached, and Apprentice Hunting Licenses were all fairly well-received concepts by focus group participants, but they do not appear to be hugely influential factors likely, on their own, to prompt hunters to purchase a license.
- The Department's elk reintroduction efforts in the southwestern part of the state were met with solid yet restrained approval—such efforts were thought likely to improve license sales slightly but not dramatically.

Virginia License Exemptions

License exemptions for Virginians hunting on private land are extremely liberal. The 2009 Responsive Management Telephone Survey of Virginia's Lapsed Hunters indicated nearly half of the lapsed hunters in the sample had hunted on private land and presumably were exempt from purchasing a license. And a third of those who said they were not at all likely to buy a hunting license in 2009/2010 said it was because they planned to hunt private land.

Agency revenue is affected by this in two ways, first directly by lost license sales and secondly, fewer licensed hunters means less Federal Aid in Wildlife Restoration dollars for conservation work. License exemptions are as follows:

Virginia License Exemptions

All persons, except those listed below, must purchase the proper licenses before hunting or trapping. Where exempt, the exemption means the individual is exempt from the basic hunting license, bear, deer, turkey license, archery license, crossbow license, muzzleloading license, and Virginia Migratory Waterfowl Conservation Stamp.

- Resident or non-resident landowners, their spouses, their children and grandchildren and the spouses of such children and grandchildren, or the landowner's parents, resident or non-resident, do not need a license to hunt, trap or fish within the boundaries of their own lands and inland waters.
- Tenants, on the land they rent and occupy, are not required to have a license, but must have the written permission of the landowner. Persons that lease property and do not reside there are not exempt from license requirements.
- Residents, 65 years of age and over, do not need a license to hunt or trap on private property in their county or city of residence.
- Resident hunters under the age of 12 are not required to have a hunting license or hunter education. Nonresident hunters under the age of 12 need a hunting license but do not need hunter education to purchase one. All hunters under the age of 12 may not hunt unless immediately supervised by a licensed adult.
- Residents under the age of 16 are not required to have a license to trap when accompanied by any person 18 years of age or older who possesses a valid Virginia trapping license.
- Any person who is not hunting, but is aiding a disabled person to hunt when such disabled person possesses a valid Virginia Disabled Resident Lifetime hunting license or a Virginia Resident Disabled Veteran Lifetime license is not required to have a license.
- Any American Indian who resides on a Virginia Indian reservation or a member of the Virginia recognized tribes who resides in the Commonwealth is not required to have a license; however, such Indian must have on his person an identification card or paper signed by the chief of his tribe, a valid tribal identification card, written confirmation through a central tribal registry, or certification from a tribal office.
- Stockholders owning 50 percent or more of the stock of any domestic corporation owning land in Virginia, his or her spouse and children and minor grandchildren, resident or nonresident, to hunt, trap and fish within the boundaries of lands and inland waters owned by the domestic corporation.

Shooting Ranges

- Regarding locating a shooting range (public or private) to sight in firearms, VDGIF does not promote private shooting ranges. They do promote private shooting preserves, and public shooting ranges through press releases, web site, Virginia Wildlife magazine, Outdoor Report and Department run outdoor education workshops.
- Public shooting ranges are not conveniently located. Most active public ranges are located about 200 miles from each other.
 - Virginia's Public Shooting Ranges
 - Amelia – central Virginia (30 to 45 minutes outside of Richmond)
 - Chatham – south central Virginia (2 hours from Roanoke & Lynchburg)
 - Remington – northern Virginia (about an hour outside of Washington DC)
 - Saltville – southwest Virginia (middle Appalachians)

- Hot Springs – northwest Virginia
- Charles City – southeast Virginia (between Williamsburg and Richmond)

Regulations

Research literature such as the Future of Hunting and Shooting Sports Phase 1 Literature Review (2006) suggests regulations may affect hunter satisfaction.

- One aspect of satisfaction or dissatisfaction with hunting that has been discussed by fish and wildlife managers is hunter attitudes toward regulations. In one sense, that regulations can be viewed as a hindrance to hunting satisfaction is ironic, since regulations are designed to ensure long-term viability of a species, and therefore enhance long-term satisfaction because of the increased chance of success.
- Nonetheless, “satisfaction” is not always derived at in an analytical and rationale way, and it is the perception that is important. Beattie (1981:229) noted that “some hunters have quit hunting because of what they perceive as excessive regulation of sport hunting.” However, when Beattie (1981) studied Virginia hunters to identify and quantify the effects that game laws and regulations have on satisfactions obtained from hunting, he found, on the average, hunters believed that most satisfactions received from hunting are facilitated by game laws and regulations. Hunters generally supported the idea that game laws facilitate hunting as a sport with an average rating of 7.32 (1 = laws extremely hinder to 9 = laws extremely help). The possibility that some game laws and regulations may be perceived by hunters as being overly restrictive by dictating when, where, how, and by whom game may be hunted was not supported by the data: an average rating of 5.75 on the question “being free to do what is desired while hunting” indicated that “... Virginia hunters tended to think that game laws did not suppress a person’s freedom to act as desired while hunting” (Beattie 1981:231). The literature suggests that hunters and anglers support restrictions that assist in the conservation of fish and wildlife resources.
- More recently, in Responsive Management’s (2005c) study for the National Shooting Sports Foundation, respondents who had hunted for 2 of the past 5 years were asked about their opinions on and attitudes toward hunting and shooting sports, including their participation in these sports. Most respondents (78%) did not think hunting regulations were a problem for them to hunt 5 years ago. Only 2% said hunting regulations were a major problem, and 19% said they were a minor problem 5 years ago. However, the percentage of those who hunted for 2 of the past 5 years who found hunting regulations to be a much or somewhat greater problem in hunting steadily increased from 17% in 1991 to 25% in 2005 (see graph that follows) (Responsive Management 2005c).

Overall, Virginia hunters are not dissatisfied with hunting regulations, according to VDGIF Customer Surveys

- Regarding Virginia Hunting Regulations, VDGIF Customer Surveys reported a 70% satisfaction rate in 2007 and an 84% satisfaction rate in 2008.

- Virginia regulations are explained in the Regulation booklets' table of contents', which are color coded for easier access. In addition, the species and seasons also are color coded throughout the booklet.
- Regulation changes that could affect license sales in future years include increased bear hunting opportunities, hunting with hounds, and the possible inclusion of elk hunting.
- There is even discussion of going back to a traditional/primitive muzzle loading season and creating a separate license. In addition, the Department has been increasing various hunting seasons such as bear and deer in some counties along with increased dog chase seasons for species like raccoons.
- In the last five years, deer seasons have increased in certain counties with attentions to continue to liberalize deer seasons in the future. Shifting the opening day for certain deer and bear hunting from week days to weekends has also offered greater impact. This has also increase hunting not only on public lands, but also private.

Sunday Hunting

Sunday hunting has been a polarizing issue in Virginia for many years, according to House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000):

- A majority of Virginians opposed Sunday hunting during the legal hunting season, with 44% strongly opposing Sunday hunting.
- Hunters were strongly polarized on the issue of Sunday hunting—34% strongly supported it, while 45% strongly opposed it.
- 67% of Virginia landowners strongly opposed Sunday hunting only 13% strongly favored it.

While a majority of Virginians oppose Sunday hunting, according to the report, 2006 Virginia Sunday Hunting Survey, hunters have expressed some support for it.

- A survey of Virginia hunters was conducted in fall 2006 to determine their opinions about Sunday hunting in the Commonwealth of Virginia. Sixty-two percent of hunters expressed some degree of support for Sunday hunting, 34% were opposed, and an additional 4% said they neither supported nor opposed Sunday hunting.
- The majority of hunters supported the hunting of all species on Sundays, with two exceptions: 59% of hunters expressed opposition to deer hunting with dogs on Sunday and 56% of hunters said they opposed bear hunting with dogs. Over three-quarters (78%) believed that Sunday hunting would increase the amount of time to hunt, 62% believed it would increase interest in hunting in Virginia, and 62% thought that youth participation in hunting would increase if Sunday hunting were allowed. Sixty-three percent of hunters thought Sunday hunting would create more opportunities for hunters to try new places to hunt and 76% also believed the number of animals harvested would increase if Sunday hunting were allowed. If Sunday hunting was legalized in Virginia, 52% said they were *Very likely* whereas only 29% said they were *Not at all likely* to take a friend or family member hunting on Sunday. Forty-five percent of hunters said they would be *Very likely* to take a youth hunting on Sunday compared to 32% who said they would be *Not at all likely* to take a youth hunting on Sunday.
- Hunters who lived in metropolitan areas (urban and suburban) supported Sunday hunting more than hunters who lived in rural areas, small towns, and on farms. Finally,

the age of hunters was also related to their support of Sunday hunting. Younger hunters were more supportive of allowing Sunday hunting than their older counterparts.

Deer Hunting With Dogs

Another hot button issue in Virginia is deer hunting with dogs, according to the report, House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000):

- 21% of Virginia landowners experienced problems with hunters who did not hunt with dogs and 15% experienced problems with hunters who hunted with dogs. The major problem cited by landowners was trespassing (69% and 59% respectively).

According to the report, *Hunting with Hounds in Virginia: A Way Forward* (November 2008), hunting with hounds is a popular tradition with some clubs in existence for 50 years or more.

- Approximately 30 percent of Virginia hunters use hounds. Number of participants is estimated at 56,700.
- Focus groups suggest deer hunting with hounds satisfies social values such as family customs & camaraderie. Hound hunters contribute to wildlife research, wildlife damage abatement and conservation.
- 65% of deer hunters in the Tidewater region (roughly east of I-95) use dogs. On average, hound hunters participate in the general firearms season more days (14.2) than all deer hunters combined (10.8 days). Deer hunters with hounds account for 45% of all deer taken in Virginia. In the Tidewater region, deer hunters with hounds account for 86% of the harvest. Studies suggest hunting deer with dogs is more effective than stand hunting and may be the best method for managing deer herds in thick or swampy habitats.
- Expenditures associated with deer hunting with hounds are estimated at \$3,000 per club member for fuel, dog care, equipment, etc. License revenue directly attributed to deer hunting with dogs is unknown.
- Hound hunting traditions in Virginia are complicated by today's changing land uses (development, limits to access, landowner turnover, shrinking parcel size), attitudes and demographics (population growth, urbanization, fewer hunters), which exert pressure on the practice and cause conflicts with other hunters and landowners.
- Hound hunting is controversial due to large acreage requirements, high visibility, frequent interactions with landowners and other outdoor users, and hunting methods that some people find unacceptable. Conflicts are documented between hunters who do use and who not use hounds to hunt deer. Issues of trespass and perception that hound-hunters are involved in illegal hunting activities can attract negative public attention or divide hunters.
- While most Americans approve of hunting, there is little support for hunting deer with dogs. Concerns over animal welfare, animal rights, fair chase and hunter ethics may play a role in the acceptance of deer hunting with hounds.
- VVDGIF 2006 survey indicated greater opposition to bear and deer hunting with hounds than any other types of hunting.
- In 2007 Hunting with Hounds process was adopted to serve as a comprehensive approach to address hound-hunting issues. Solutions are explored via case-by-case approaches and multi-stakeholder decision-making. The goal of this project was derived from the 2006-2015 Virginia Deer Management Plan, which contains a goal to "Provide

opportunities for all citizens to safely and ethically enjoy diverse deer-related recreational experiences and traditions (including observation and hunting) consistent with deer population and damage goals.” The plans were developed with involvement from hound and non-hound hunters, landowners, nonconsumptive-recreationists, corporate landowners, land management agencies and other stakeholders.

- Approaches to address hound-hunting issues include nonrestrictive, voluntary measures (education, codes of ethics, multi-stakeholder guidelines), partial closures and complete prohibitions.

Game Populations

- In 2008 deer and bear harvest were at record levels and promoted as so. Hunters are reminded that there is currently an abundance of many game species and that hunting is not only fun, but an excellent way toward attaining good tasting and health food, along with being an excellent way to exercise.
- Most game species populations such as deer and bear are high and, therefore, increase the likelihood that hunters will expect to see more game. An increase in public hunting areas also has been beneficial.

Stakeholders/Potential Partners

National Wild Turkey Federation

Ducks Unlimited

Delta Waterfowl

Pheasant Forever

Rocky Mountain Elk Foundation

NRA

- List of hunting and gun clubs:

<http://www.gunshowdirectory.com/local.asp?searchType=3&popState=VA>

Results from Other Lapsed Hunter Campaigns

Tennessee Wildlife Resources Agency

- The Tennessee Wildlife Resources Agency (TWRA) received an HHP grant from NSSF and worked with D.J. Case & Associates and Southwick Associates to conduct a multi-year, integrated marketing campaign, which began in 2006. The campaign three objectives were:
 - Discover from focus groups what messages hunters in Tennessee preferred – and which ones would entice them to go afield.
 - Show license purchase increases in East Tennessee within the following tapestry segments identified as top performing - Salt of the Earth, Green Acres, and Southern Satellites
 - Ensure the percentage of lapsed hunters in West Tennessee treatment groups who bought a targeted license type would be greater than the percentage of similar hunters who buy those license types in control areas (all Tapestry segments included).
- Overall, campaign strategies included four focus groups in 2007 to test messages used in their 2006 campaign, identifying top-performing tapestry segments and evaluating campaign strategies via inviting inactive hunters to complete a web-based survey.
- Focus Group Results:

- Focus group participants were asked why they liked to hunt. Top reasons given were: 1. getting out of doors, 2. Feeling close to nature, and 3. getting away from stress.
- TV spots focus on sharing hunting with family and friends and getting outdoors and away from work and stress.
- Do not use “fast food” or “put some wild in your life” messaging. These both had negative connotations for many participants.
- Do not use “healthy food” spots. Participants didn’t dislike them, necessarily, but this message just was not compelling to most participants.
- Do not use “designer jeans” spots with lapsed hunter audience. Most participants thought it would play well with young audiences, but it was not compelling to lapsed hunters.
- Be careful with messages that pit hunting versus going to the mall, cruising the Sonic, playing video games and surfing the net. Some lapsed hunters liked them; some didn’t. There is concern about “turning off” potential hunters (especially young ones) who might like to do these activities and hunting.
- Participants liked having information on where they could go to find hunting locations.
- Participants liked the “It’s just our nature” messaging.
- Participants liked hearing the reference to hunter education.
- The “Break Free Tennessee” slogan used in the 2006 campaign played well with focus group participants.
- The potential slogan “Hunting season only comes once a year—don’t miss it!” was rated high by all participants.
- Campaign methods included:
 - During 2006, 10 Tennessee counties were targeted for residential hunting license promotion, with control groups for each treatment county. In 2007, three counties in East Tennessee and six counties in West and Central Tennessee were identified as target areas, with three control counties in East Tennessee and five in West and Central Tennessee. The East Tennessee region was used to re-test the efforts of the 2006 campaign.
 - Specific Strategies used in the promotion campaign included:
 - Purchased selected media to encourage license purchases.
 - Used direct mail to remind lapsed license holders to purchase a license.
 - Worked with media in selected areas to get earned media opportunities to promote hunting.
 - Coordinated and conducted special events to promote hunting license sales.
 - Developed and placed promotional materials at license points of sale.
 - Coordinated and communicated with regional staff about the campaign.
- Campaign results included :
 - According to the final report submitted to NSSF, the campaign in East Tennessee did not result in any significant increases, though; the three tapestry groups targeted by this campaign seemed to perform better than all other hunters. License sale decreases among these hunters in the treatment area compared to the control area was not as severe as the overall decrease in revenues in this region. It appears the campaign caused a number of hunters to shift their license purchase to earlier in the year, which may have helped secure license dollars from hunters that later did not actually get to hunt.

- West Tennessee showed a better response. While the overall number of treatment area lapsed hunters did not respond better than their counterparts in the control area, the treatment area did experience an overall 3% increase in revenues. This is attributed to a greater rate of hunters in the treatment area upgrading to higher priced licenses. Fewer hunters in the treatment area downgraded to lower priced licenses than seen in the control area. Many hunters who previously bought a regular hunting license upgraded to a sportsmen's license.
- Campaign Evaluation: A web-based survey was conducted after the campaign to learn more about the specific strategies that were effective. During January-February of 2008, lapsed Tennessee hunters (4,850) were invited to complete a web survey as part of TWRA's 2007 campaign to promote hunting. Respondents numbered 422 (9 percent). Major findings of the survey included:
 - 38% of respondents described themselves as "active hunters, while the plurality (47%) characterized themselves as "inactive hunters," and perhaps a surprisingly large 11% said they were "no longer hunters."
 - 88% of respondents recalled seeing/hearing at least one hunting promotion;
 - 45% were moved to take some action as a result of the campaign;
 - Of those hearing/seeing at least one hunting promotion, 24% were motivated to obtain a hunting license;
 - Of all those who indicated they obtained a hunting license in 2007, 37% said it was a consequence of the promotion.
 - Of those who obtained a license as a consequence of the promotion, 62% described themselves as "active hunters," and 30% as "inactive hunters."
 - In general, the hunting promotion campaign clearly appeared to have most motivational effect on active hunters, and some indication that younger hunters were motivated. Implications: Marketing campaigns designed to encourage lapsed hunters to purchase their permits can accomplish this to great or lesser extent.
 - However: Not all lapsed hunters constitute the same quality of marketing "target"—only 38% of lapsed hunters responding to the survey characterized themselves as "active hunters." This group—much smaller than the general pool of lapsed hunters—is predisposed to respond to the appeal of the marketing campaign, certainly much more so than the sizeable constituency describing itself as "inactive" or "no longer a hunter."
 - Lapsed hunters who think of themselves as "inactive" not only are less likely to purchase licenses, but are less likely to go afield even if they do purchase licenses.
 - Results suggest that it is very challenging to bring hunting promotions to the attention of lapsed hunters, with large numbers of respondents unable to recall promotions. Many respondents who indicated they recalled promotions characterized those promotions as "moderately motivating." But the challenge for fish and wildlife agencies is to make their messages consistently heard in the strikingly competitive advertising environment.

Indiana Department of Natural Resources

- In 2008, The Indiana Department of Natural Resources, Fish and Wildlife Division received an HHP grant from NSSF and hired D.J. Case & Associates and Southwick Associates to assist with an integrated marketing campaign, to begin an effort to lower their 50 percent churn rate in a pilot area treatment group.

- The overall goal of the project was to regain lapsed deer and small game hunters in Indiana. Specific objectives of this first-year marketing project included:
 - Identify segments of lapsed hunters most likely to purchase licenses again.
 - Develop direct marketing tools to encourage lapsed hunters to purchase a hunting license.
 - Apply the marketing tools to a selected pool of lapsed hunters.
 - Assess the effectiveness of the package of marketing tools.
- Overall, campaign strategies included selecting the target audience for this campaign based on demographic characteristics as defined by Tapestry analysis.
- Campaign methods included:
 - Specific Strategies used in the integrated marketing campaign included:
 - Radio advertising in all five markets
 - Radio interviews in four of the five markets
 - Oversized postcards mailed to each of the 9,719 lapsed hunters two times
 - A dedicated Web site about hunting in Indiana
 - Newspaper articles about hunting and hunters
 - Web-based, online post-campaign survey to determine which aspects of the direct mail marketing and advertising campaign were most effective.
 - There were two treatment groups and a control group and all were located in southern Indiana. Treatment 1 received media only. Treatment 2 received media and two direct mailings. The control group (no mailings and no media campaign) consisted of lapsed hunters who received no treatment during the previous license year, 2007.
 - Campaign Results:
 - Neither treatment group performed better than the control group from the previous year.
 - However, the Tier 1 lapsed hunters from both treatment groups performed better than the control group, pointing out the need to continually segment target audiences to find the groups that respond best, and then target them specifically.
 - Overall, hunting license buying behavior did not differ significantly between treatment groups. That is, hunters who received direct mail postcards and were exposed to a media campaign were not more likely to purchase licenses than hunters who only received direct mail.
 - Campaign Evaluation: The campaign was evaluated during January-February 2009, when about 8,800 lapsed hunters from treatment groups were invited to a Web site to complete an online survey. There were 946 usable responses (10.8% response).
 - Key findings included:
 - 75% of respondents described themselves as “active hunters,” 21% described themselves as “inactive hunters” and 2% stated “I am no longer a hunter.” This further points out the need to segment target audiences to find high-probability audiences.
 - 76% recalled seeing/hearing at least one of the hunting campaign promotions.
 - 66% were moved to take some action as a result of the campaign.

- Of those motivated to take some action as a result of the campaign, 44% said they bought at least one type of Indiana hunting license.
- Of all those who indicated that they obtained some sort of a hunting license in 2008, 55% indicated it was due, at least in part, to the campaign.

Florida Fish and Wildlife Conservation Commission

- In 2008, the Florida Fish and Wildlife Conservation Commission received an HHP grant from NSSF and hired D.J. Case & Associates and Southwick Associates to help conduct a pilot project to determine if an integrated marketing campaign could be developed to encourage Florida residents who hunt out-of-state to begin hunting in Florida again.
- The overall goal of the project was to determine the fundamental reasons why individuals choose not to hunt in Florida, and to test the appeal of some slogans and key messages to guide development of a marketing campaign aimed at this segment of Florida residents.
- Overall the goals of this project included conducting four focus groups to examine the beliefs and attitudes of a sample of Florida residents who purchased a hunting license in South Carolina but not in Florida in 2007 and to test possible messages to encourage resident hunters to buy a Florida license in addition to an out-of-state license.
- Focus Group Results:
 - In the absence of other strategies, it is unlikely that delivery of key messages will cause significant increases in license sales to Florida residents who hunt in other states. The factors listed by this target audience for not hunting in Florida (disappointment in quality and quantity of game) cannot be addressed with simple messages. These hunters want to understand what FWC is planning to do to address their larger concerns, and they want to see progress over time.
 - Some participants felt that good deer hunting opportunities existed in Florida, but that these lands were not accessible to hunters. Many participants expressed interest in buying into a Florida lease if good opportunities became available. Most participants were not interested in hunting public lands.
 - Focus group participants were avid deer hunters did not express much interest in other types of hunting (besides deer), with the exception of dove, turkey, and alligator hunting.
 - Some participants felt that Florida hunting regulations were too restrictive and cumbersome, and many felt that game wardens were disrespectful and had generally bad attitudes toward hunters.
 - Slogans which highlighted potential “believable” advantages for individuals to hunt in Florida rather than some other state were the slogans that were the most popular with focus group participants. This included:
 - “Where can you take a few hours off from work and hunt? In your own state, that’s where.
 - “Hunt Florida, hunt often.”
 - “Hunt deer until January 20 in Florida’s cool late season, after everyone else has given up. Keep hunting into February in the Northwest Zone.”
 - “Burn ammo, not gas. Hunt Florida.”

SWOT

Strengths

House Bill 38 and Future Directions for the Department of Game and Inland Fisheries Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000) suggests the following strengths.

- Employees demonstrated strong commitment to agency functions that support traditional uses of fish and wildlife, acquisition of land and providing information and education to Virginia citizens.
- Employees felt that the agency is performing best in the areas of hunter safety programs, enforcement of boating regulations and management of game resources.
- Nearly all Virginians who expressed an opinion, were very satisfied or somewhat satisfied with the department as a governmental agency, however, more than half of Virginians were neutral or did not know.
- 89% of hunters were very satisfied or somewhat satisfied with their hunting experiences over the past two years.
- Deer, spring turkey, fall turkey, squirrel and dove hunters expressed high levels of satisfaction with their hunting experiences during the 1997-98 and 1998-99 seasons.

Weaknesses

The report, House Bill 38 and Future Directions for the Department of Game and Inland Fisheries Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000), identifies potential weaknesses.

- Employees felt that the agency is performing worst in the areas of acquiring additional land and water for wildlife conservation, providing recreational shooting range opportunities and providing recreation-oriented capital investments on wildlife management areas (e.g., camping areas, hiking trails, interpretive facilities, observation platforms).
- Employees' ratings of the agency's performance for acquisition of land and water for wildlife conservation and for educating and informing citizens in general about fish, wildlife and boating related issues were poor in relation to the priorities attached to those items.
- Relatively high levels (>20%) of dissatisfaction with hunting experiences were expressed by bear, rabbit, grouse, quail and duck hunters.

Private Land Hunting License Exemptions

License exemptions for Virginians hunting on private land are extremely liberal. The 2009 Responsive Management Telephone Survey of Virginia's Lapsed Hunters indicated nearly half of the lapsed hunters in the sample had hunted on private land and presumably were exempt from purchasing a license. And a third of those who said they were not at all likely to buy a hunting license in 2009/2010 said it was because they planned to hunt private land.

- Agency revenue is affected by this in two ways, first directly by lost license sales and secondly, fewer licensed hunters means less Federal Aid in Wildlife Restoration dollars for conservation work. License exemptions are as follows:

Opportunities

- There is a high likelihood that elk will be introduced back into Virginia and that an elk management plan will be developed that includes hunting.
- Both seasons and bag limits for most major species of waterfowl have been increased by the Feds and adopted by DGIF over the last couple years creating additional waterfowl hunting opportunities and increased hunting days. Canada and snow geese seasons

(now DGIF has an early September and late February season) and bag limits have continued to increase to record levels.

- Virginia has a large population of people in the military and as a result of regular relocation or assignments increases the lapsed hunter rate. Most major military installations in Virginia have active hunting programs to managed game populations and promote hunting, though. VDGIF also promotes hunting opportunities on its web site, regulations, press releases and other publications.
- The economy could be a factor that encourages increased license sales. Hunting license sales were up slightly last year, though, VDGIF has not firm data relating the increase to the poor economy.

Board support for an emphasis on recruiting and retaining hunters was identified in the report, House Bill 38 and Future Directions for the Department of Game and Inland Fisheries Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000)

- Although Board members had many ideas about which program areas should be given most emphasis in the future, two common themes were education and recruitment of hunters and anglers in the future.

Threats

- Potential License fee increase in 2010.
- Non toxic shot would most likely have a negative impact (cost being the greatest factor). VDGIF has no plans to require non toxic shot at this time. This could be something that is mandated by the Feds.
- It is likely the Sunday hunting issue will resurface.
- If discovered in Virginia, Impact of CWD across the state would most likely be negative. Look at Wisconsin and how they dealt with CWD as a good example.
- Regarding hunting with hounds, the Virginia Hunting Dog Alliance's bark has been worse than their bite up to now. They were vocal and active during the Hound Study and presented themselves as a threat, but now seem to be working more closely with VDGIF toward a common goal. Lapsed hunters are not likely to be involved in active organizations so any news seems to be good news.
- The agency doesn't anticipate regulations that would stir more controversy among those hunting with hounds. Any changes will be in-house and self policing. DGIF ability to make legislative changes is limited by code and, therefore, changes are unlikely.
- The Virginia Department of Game and Inland Fisheries received laboratory confirmation on Jan. 19, 2010, that a white-tailed deer tested positive for chronic wasting disease (CWD). This is the first confirmed case of CWD in Virginia. The deer was killed by a hunter in Frederick County less than one mile from the West Virginia line. VDGIF does have information about CWD and an action plan on its Web site.

Recommendations

House Bill 38 and Future Directions for the Department of Game and Inland Fisheries Results of Constituent and Staff Studies and Recommendations for Future Action (February 2000)

- Make access to hunting lands, especially private lands, a priority. Virginia hunters want more access to hunting lands. Access to private land is very important to Virginia hunters while access to public land is important but to less of a degree (64% of hunters hunted mostly on private land, while only 13% of hunters hunted mostly on public land). Hunters from Region 5 and Region 3 appear to have the most urgent need for access to both public and private lands.
- Focus on local hunting opportunities. A majority of Virginia hunters hunt less than an hour from their home. Also, the only major dissatisfaction among Virginia hunters besides access issues is related to not having enough time to go hunting. The “no time” issue is directly related to work obligations. In light of these time and work constraints, local opportunities become even more important.
- Look into management strategies that could increase satisfaction levels for bear, rabbit, grouse and quail hunters, for whom dissatisfaction levels were highest.
- Increase information dissemination efforts to hunters. Virginia hunters want information on a variety of issues, including game management, hunting regulations, public hunting areas, hunting access, private hunting areas and where to hunt. A substantial number of Virginia hunters also want to get involved in wildlife conservation and it is highly recommended that the VVDGIF pursue harnessing this interest for the good of both wildlife conservation and enhancing hunting opportunities.
- Work toward increasing awareness of the activities of the VVDGIF among Virginia hunters. More than a third of Virginia hunters (38%) said they knew only a little to nothing about the activities of the Department.

2009 Lapsed Hunter Focus Groups (Responsive Management)

- In September and October of 2009, three focus groups were conducted with Virginia lapsed hunters - one in Rocky Mount, one in Chesapeake, and one in Dumfries. There were 10 to 12 participants in each group that were interviewed about their opinions and perceptions regarding hunting in Virginia.
- Focus group participants were receptive to receiving information from the Department, particularly information related to the opening of hunting seasons, places to hunt, and hunting licenses offered.
- The concept of reminders from the Department to purchase licenses was alternately encouraged and rejected, with some saying the action would be helpful and others describing it as unnecessary and a waste of the Department’s money.
- In general, focus group participants valued short, unambiguous messages related to hunting licenses and hunting opportunities. The messages that resonated most with focus group participants tended to emphasize connecting with nature, tradition, heritage, bonding with family and friends, creating memories, stress relief, and fun.
- Many group participants did not appear to make the connection between wildlife resource conservation and purchasing a hunting license. While it may benefit the Department to inform hunters of this connection, it does not appear to be a message likely to motivate lapsed hunters to purchase or renew licenses.

2009 Virginia Lapsed Hunter Telephone Survey Results (Responsive Management)

In November 2009, Responsive Management conducted a telephone survey of Virginia's lapsed hunters. The survey was conducted for the National Shooting Sports Foundation in cooperation with the Virginia Department of Game and Inland Fisheries (VDGIF) as part of a larger study regarding messages to encourage lapsed hunters to purchase a hunting license.

- Discussion of the Implications of the Telephone Survey Results on Communication Strategies.
 - DO consider using the following top three messages (or variations of the messages using similar themes, phrases, and words) rated by respondents as very or somewhat effective at getting them to buy a hunting license during a year that they otherwise might not:
 - Make memories. Take someone special hunting.
 - Hunting – protect the heritage, protect the environment.
 - Hunting bonds family. Share the experience.
 - DO use messages and outreach materials that incorporate the “passing on the hunting heritage” theme. Two of the top three messages focus on the hunting heritage, and the third message blends the hunting heritage theme with a conservation theme. Furthermore, when asked about message themes, respondents’ top message theme was “being reminded that it is important to continue the hunting heritage of this country.”
 - DO use the words, phrases, and concepts of “connect,” “share,” “make memories,” and “heritage.” These terms were used frequently in the top nine messages rated as being very or somewhat effective. All messages that used the word “connect” were in the top nine messages, regardless of whether the concept referred to making connections with nature or with family and friends. The phrase “connect to nature” was the top-ranked term among words and phrases that respondents indicated as having a positive association with hunting; the word “memories” ranked sixth. Also note that the message that ranked fourth overall as very effective, “Connect to nature, hunt Virginia,” was the top-ranked message as being very effective among those who indicated they are not at all likely to purchase a 2009-2010 hunting license.
 - Furthermore, those who indicated that they are not at all likely to purchase a 2009-2010 hunting license had three messages ranked among the top six in the rating by very effective that used the word “connect.” Another message among the top few messages used the phrase “make memories.” Note, however, that the word, “tradition,” did not appear to be as effective as the other words and phrases that were related to the hunting heritage.
 - DON'T use the term “environment” or other words, phrases, and concepts related to the theme of “environmentally friendly,” “eco-friendly,” or “going green” unless it is blended or used with another theme (other than the direct “buy a license” theme), such as the hunting heritage theme.
 - DON'T use the term “conserve” without being specific about what is being conserved. Conserving the “environment” is too general or broad; specify conservation of wildlife, habitat, etc. Two of the three messages pertaining to the

“conservation/appreciation of the natural world” theme were among the top dozen messages rated as very effective. The conservation-themed message that resonated the best was “Buy your license, help conserve habitat.” For the two nearly identical messages pertaining to the “monetary contribution of hunters to conservation and wildlife management” theme, the one using the word “conserve” ranked higher than the one using the word “manage.” Messages with direct “buy a license” statements also ranked high when blended with a conservation theme.

- DO use messages and outreach materials that appeal to passing on the hunting heritage, connecting, making memories, and bonding with someone special, but be non-specific (e.g., someone special) or all inclusive (e.g., friends and family) regarding who “someone special” is (see next “DON’T”).
- DON’T make family the primary or central person/people in messages and campaign materials that appeal to passing on the hunting heritage, connecting, making memories, and bonding. Lapsed hunters most commonly hunt with friends, followed by alone. Male family members were common hunting companions, but still less typical than friends and alone. Also note that over half (58%) of lapsed hunters in Virginia do not have children in the household. Messages that specifically mention “someone special,” “a friend,” and “family and friends” all ranked higher in the top seven messages rated as very effective by those who indicated they are not at all likely to purchase a 2009-2010 hunting license than the message that mentions only family.
- DON’T focus predominantly on time constraints and obligations that interfere with hunting. These factors are, for the most part, beyond the control of the VDGIF. Additionally, all four messages with a “time factor” theme ranked fairly low among messages rated as very or somewhat effective among respondents overall.
- DO address availability and quality of hunting opportunities on public land in messages and outreach materials. Also consider focusing some Department resources, if necessary, on improving hunting opportunities on public lands (e.g., acquiring more land, adjusting regulations, attempting to reduce crowding). Having hunted on private land was the top reason given for not purchasing a 2008-2009 hunting license. About a third (30%) of those who indicated they are not at all likely to buy a 2009-2010 license said it was because they will hunt on private land. Finally, not having enough places to hunt and not having enough access to places to hunt were among the top four factors that strongly took away from lapsed hunters’ enjoyment of hunting in Virginia. It may even be an effective message approach to associate hunting on public land with the hunting heritage, the latter being the most popular message theme.
- DON’T use “buy a license” as the primary or dominant theme in messages and campaign materials. Many direct “buy a license” messages were not popular but can be more effective when used in conjunction with the words “conserve” or “conservation.” Note, however, that receiving a reminder to purchase a license was the top item rated not at all likely to make respondents purchase a license during a year in which they otherwise might not.

