DEPARTMENT OF GAME AND INLAND FISHERIES



A REPORT ON DEER HUNTING WITH DOGS

January 2016

Introduction

On October 15, 2015, the Board of Game and Inland Fisheries requested a report for the January 2016 Board meeting on issues surrounding deer hunting with dogs, potential options to address any issues, and a recommended approach going forward. This request followed input provided by several members of the Virginia Landowners Association who attended the October 15 meeting. **This report does not recommend any regulatory or legislative actions.**

The Virginia Deer Management Plan directs VDGIF to preserve the heritage and tradition of hunting deer (including with dogs), for both management and recreational benefits, while ensuring that hunting methods are consistent with and respect the rights of private property owners and other citizens (VDGIF 2015). Deer hunting with dogs is an important tradition and deer population management tool in eastern Virginia, but it can generate concerns from other hunters and landowners regarding "trespassing" dogs, trespassing hunters, and hunting from or near roads (VDGIF 2015).

This report borrows heavily from work done by VDGIF and Virginia Tech during the 2007-2009 *Hunting with Hounds in Virginia: A Way Forward* process. Products from the process included a 121-page peer-reviewed technical report written by Department staff (VDGIF 2008a), survey and written comment summaries by Virginia Tech (Kozlowski et al. 2008, McMullin et al. 2008), and recommendations by a Stakeholder Advisory Committee. As of 2015, no regulatory or statutory changes have been made as a result of this process.

Description of the Issues

Deer may be hunted with dogs east of the "dog line" (Figure 1). The most recent data available indicated that 29% (approximately 55,000) of deer hunters in Virginia used dogs at least once during the season (VDGIF 2008b); 44% of deer hunters used dogs in regions of Virginia where dogs may be used to hunt deer (VDGIF 2005). In the Tidewater region, 73% of deer hunters used dogs (VDGIF 2005) and accounted for 86% of all deer harvested regionally during the general season (VDGIF 2006; unpublished harvest data). In the Southern Piedmont, approximately half of the deer harvested during the general season were taken by hunters who used hounds (VDGIF 2006; unpublished harvest data). It is not known how many of these hunters used dogs exclusively.

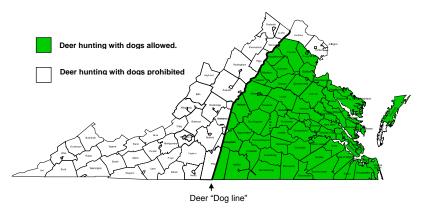


Figure 1. Areas open and closed to deer dog-hunting in Virginia, demarcated by the "dog line."

The economic impact attributable directly to deer hunting with hounds is unknown. However, the pursuit of this sport involves purchasing special equipment, in addition to purchasing and maintaining hunting hounds. An informal survey by Virginia Hunting Dog Alliance estimated that each member of deer-dog hunt clubs in the southern Piedmont spent an average of \$3,000 a year for fuel, dog care, equipment, and other hunting-related expenses (VDGIF 2008a).

Due to the distances covered during deer chases, high visibility, and frequent interactions with landowners and other outdoor users, deer hunting with dogs can be controversial at times. The Department receives complaints from residents and other hunters about trespass, violation of privacy, and interference from deer hunters who use dogs. Changing land uses, demographics, and societal attitudes are exerting pressures on the sport not seen a generation ago.

Under the pretext of other legal pursuits, some deer hunters who use dogs may engage in activities that lead to conflicts with other citizens or that are viewed as objectionable by the public (VDGIF 2008a). For example, some hunters may chase game or disturb other citizens on prohibited lands under the guise of retrieving hunting dogs (Code of Virginia §18.2-136), chase deer out-of-season during year-round fox chase seasons (Code of Virginia §29.1-516), or road-hunt under laws or ordinances which vary considerably by locality. A number of states permit retrieval of hunting dogs without landowner permission under certain conditions (e.g., on unposted properties), but Virginia appears to be one of only two states where hunters can lawfully retrieve dogs even when access has been expressly denied by the landowner. In Minnesota, the other state with a similar dog-retrieval law, dogs cannot be used to hunt deer.

Deer chase characteristics, land use and demographic trends, hunter opinions, public comments, documented dog-related complaints made to VDGIF, and similar experiences in other states provide context for these issues.

<u>Characteristics of deer chases.</u> Deer hunting with dogs typically requires large tracts of land due to the extent of the chase. In studies of unconstrained, traditional hunts conducted in 5 southeastern states, the average deer chase lasted 11-33 minutes and extended 0.8-2.4 miles (VDGIF 2008a). Historically, hound-hunts for deer took place on farms with contiguous areas in excess of 20,000 acres. Today, most deer clubs have access, through ownership, leases, or informal agreements, to areas 1,000-5,000 acres in size, much of which is fragmented. In 2008, Virginia Deer Management Assistance Program (DMAP) properties east of the Blue Ridge Mountains where hounds were used averaged 3,400 acres, while still-hunt only properties averaged 1,300 acres (VDGIF 2008a).

Land use and demographic changes. Growing at a rate of 1.4% each year since 1960, the estimated population in Virginia now exceeds 8 million people. The growth in human populations has not been uniform across the state, and some high-growth urban and suburban areas are open to deer hunting with dogs (e.g., Richmond, Hampton Roads). Byproducts of human population growth that impact deer hunting have been changes in land use, parcel size, and cultural norms. Land development fragments and reduces the land base available for hunting, intensifying competition among land uses and activities on remaining undeveloped lands (VDGIF 2008a).

Between 1959 and 2012 in Virginia, the total farmland acreage and the total number of farms have decreased by 36% and 54%, respectively. In 1959, 52% of Virginia's land area was in farmland compared to only 33% in 2012.

Land ownership patterns of forested habitats have also changed over recent decades. In 1992 timber companies owned 11% of the forested land area in Virginia, but by 2012 they only owned approximately 1% (VDOF 2014). Most of Virginia's forestland (76%) is privately owned as nonindustrial private forest land (NIPF), but the NIPF component is even greater (>80%) in dog hunting areas of the southern Piedmont and Coastal Plain (Rose 2007). These NIPF holdings average less than 75 acres in size, with 90-95% of the forest landowners owning less than 100 acres. Between 1978 and 2004, Virginia's private forest owners with landholdings that were greater than 1,000 acres declined from nearly 30% to less than 10%.

These trends of increased land development, reductions in forested parcel size, and decreased agricultural uses will undoubtedly continue to strain the compatibility of traditional hound-hunting with changing cultural expectations (VDGIF 2008a). These changing ownerships and land uses can also undermine the traditional relationships that hunters have nurtured with landowners in their community (VDGIF 2008a).

<u>Public comments</u>. Dog hunting issues were prominent during the 2015 public review of the draft 2015-2024 Virginia Deer Management Plan. Concerns about hunting deer with dogs were among the top three specific issues mentioned, along with antlered deer quality and urban deer management (VDGIF 2015).

During the biennial processes to amend hunting regulations, VDGIF receives public comments from hunters and other citizens regarding potential regulatory issues during a "scoping" period before regulation proposals are made. During the most recent regulation period (2014-15), 36 (32%) of 113 comments received about deer hunting pertained to deer hunting with dogs - more than any other topic. During 2007, the web forum for VDGIF regulations recorded 928 "hunting with dogs" comments from 254 individuals, representing 44% of all individuals providing comments, and 38% of the total comments received.

During the 2007-2009 process to develop *Hunting with Hounds in Virginia: A Way Forward*, VDGIF and Virginia Tech received public input via letters and emails (Kozlowski et al. 2008) as well as responses to an informal (non-random) survey (McMullin et al. 2008). With more than 3,500 comments received, the sharp divide between pro-dog and anti-dog advocates was confirmed by the relatively even split in opinions. Hound "trespassing" (i.e., hounds on lands of another without permission) and hound interference with other non-hound hunters were the two chief concerns noted.

<u>Dispatch Complaints to VDGIF.</u> Although the DGIF Communications Center tries to accurately capture data on all calls it receives, the exact number and nature of dog hunting-related complaints can be difficult to establish due to the design of the system. For example, many codes for hunting violations calls (e.g., human trespassing) are identical whether a dog is involved or not; a dispatcher can only conclude that such is the case if the caller specifically

mentions a dog in their description. In addition, hunting complaints made directly to Conservation Police Officers or other VDGIF staff by local law enforcement agencies, other state or federal agencies, or citizens are often not captured in the complaints database. For these reasons, dispatch data should be viewed as a conservative reflection of all dog-related complaints received by VDGIF.

Notwithstanding the limitations of these data, it appears that most dog-related hunting complaints occur in areas of Virginia where deer hunting with dogs is allowed (Figure 2, Appendix 1). On a statewide basis, dog-based complaints averaged 4.9% of all hunting complaints, with a couple of counties exceeding 20%. Out of 28 different complaint types, dog-related complaints were the 6th most common hunting complaint following, in order of frequency, calls about trespassing, hunting during closed season, baiting or feeding wildlife, spotlighting, and road hunting.

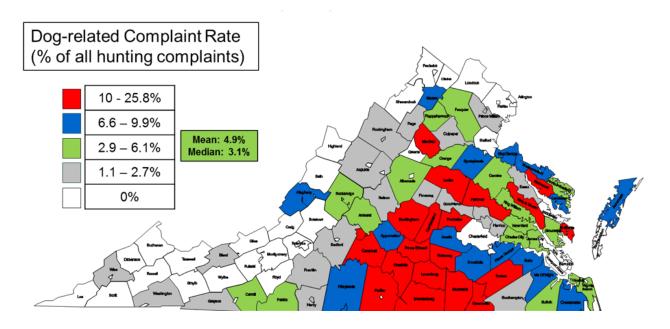


Figure 2. Dog-related hunting complaint rates in Virginia, July 2014-June 2015. See Appendix 1 for number of complaints and complaint rates by county.

<u>Hunter opinions</u>. The most recent data regarding hunter disturbance by deer dogs during the deer firearms season come from the Department's 2008-09 hunter survey (VDGIF 2009). Statewide, hunters reported being disturbed most frequently by other hunters (41%), followed by hunting dogs (28%), and then by other outdoor users (25%). Disturbances from other hunters were most frequent in all regions of the state (28-53%), while disturbances from other outdoor users were reported more frequently than disturbances from hunting dogs in the mountains (28% vs. 23%). However, hunter disturbances from hunting dogs were more frequent (29%) than disturbances from other outdoor users (20%) in the dog-deer hunting areas of the state (i.e., in the Piedmont and Tidewater regions).

In a 2006 survey, 62% of hunters supported Sunday hunting, but 59% of hunters opposed hunting deer with dogs on Sunday - more than opposed hunting any other game species with dogs on Sunday. The average opposition to Sunday hunting for all game species combined was 34% (VDGIF 2007). Although Sunday hunting was legalized in 2014, the use of dogs in deer hunting with weapons on Sundays in forbidden (§ 29.1-521).

Experiences in other states. Besides Virginia, eight other states in the Southeast (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, and South Carolina) allow deer hunting with dogs. In a 2008 nationwide survey conducted by VDGIF, 70% of the states with deer dog hunting reported that problems between landowners and hound-hunters (of any game) were a serious concern; only 6% of the states that do not allow deer hunting with dog (but allow other forms of hound-hunting) indicated serious concerns with this issue (VDGIF 2008a). In this survey, road-hunting was a serious concern for 60% of the states with deer dog hunting, but only 19% of the states that do not allow deer hunting with hounds reported serious road-hunting problems. Conflicts of trespass and interference with other users have been the primary factors leading to restrictions on deer hunting with dogs in the Southeast (VDGIF 2008a).

Approaches Used to Address Issues in Virginia and Other States

Options for addressing issues pertaining to deer hunting with dogs can best be understood by looking at approaches that have been used in Virginia and other states. This was the topic of Chapter 6 of the *Hunting with Hounds in Virginia: A Way Forward* technical report (VDGIF 2008a). The sections below summarize and update approaches described in the technical report, which should be consulted for more complete descriptions. Approaches used to address the issues have ranged from non-regulatory (e.g., education, hunter self-governance, stakeholder collaboration, property access management) to regulatory/statutory (e.g., dog/hunter/club registration or permits, dog management laws, more effective road-hunting laws, closures by season or area, complete prohibitions; VDGIF 2008a).

Non-regulatory

Non-regulatory approaches have been the most common means to address conflicts, and have often preceded more stringent measures. Before the 2007-2009 *Hunting with Hounds in Virginia: A Way Forward* process, deer hound-hunting issues were addressed in Virginia on a case-by-case basis. With assistance from VDGIF, governing bodies in the counties of Accomack (1997), King George (1986), Richmond (2004), and Westmoreland (1996) chartered hunter/landowner advisory committees to develop non-regulatory solutions to hunter-landowner conflicts, mostly related to hunting deer with dogs (VDGIF 2008a). Since 2013, a committee of landowners and hunters created by the Accomack County Board of Supervisors has met to collaborate on potential solutions to conflicts. In 2011, the Virginia Hunting Dog Alliance developed a Hunting Dog Owner's Code of Ethics to encourage all hunters who use dogs to respect landowners, care for their dogs, and practice safe and ethical hunting (Appendix 2). Then newly-revised 2015-2024 Virginia Deer Management Plan includes several strategies for educating landowners, hunters, and other citizens to reduce conflicts (VDGIF 2015).

<u>Closures by Specific Area – Private Lands</u>

As a result of landownership patterns, geography, and attitudes about the use of hounds for hunting, several states do not allow hound-hunting in specific areas. Some of these local or regional closures are simply the result of different traditions, while others are more recent and reflect conflicts and changing public attitudes about the use of hounds (VDGIF 2008).

In Virginia, hunting deer with hounds has been prohibited by state law west of the Blue Ridge Mountains since 1948 (§ 29.1-516) and in 11 counties east of the Blue Ridge Mountains (or portions thereof, e.g., west of Rt. 29) by regulation (4VAC15-90-260). Other states provide similar examples (Southeast Deer Study Group members, personal communication; hereafter SEDSG). The hunting of deer with dogs has been prohibited on private lands in 16 of Alabama's 67 counties, and partially closed in 13 counties. Arkansas is regulated by zone, with some zones having dog hunting and some zones without. In Georgia, the number of counties open to deer hunting with dogs was reduced from 63 to 46 counties between 1950 and 1980, primarily due to biological impacts and the lack of interest or tradition in the areas being closed. From 1980 to 2003, five additional Georgia counties were closed primarily due to conflicts between dog deer hunters and landowners or still hunters, as well as changes in land use and ownership. Deer hunting with dogs has been traditionally prohibited in western North Carolina under authority of the North Carolina Wildlife Resources Commission. In eastern North Carolina, hunting with dogs can be prohibited through local laws passed by the NC General Assembly; some counties are closed to deer hunting with dogs and some are closed during certain time periods (SEDSG). Timber companies in the Southeast, including in Virginia, who lease thousands of acres to hunt clubs, have increasingly restricted the use of deer hounds (VDGIF 2008a).

Closures by Specific Area - Public Lands

Hound-hunting closures on state and federal lands in Virginia and other states, mostly related to deer hunting, have been based on land purchase restrictions, incompatibility with managed hunts, conflicts between hunters in high use areas, or concerns about hunter and/or hound encroachment onto adjacent properties (VDGIF 2008a). In Virginia, deer hunting with dogs is prohibited by regulation on Amelia, Chester F. Phelps, G. Richard Thompson and Pettigrew Wildlife Management Areas (WMAs; 4VAC15-90-260) and by WMA rules on Cavalier, Featherfin, Mattaponi, and Merrimac WMAs (4VAC15-40-280). The Florida Game and Fresh Water Fish Commission has operated under guidelines developed in 1990 for where and when to allow deer hunting with dogs on public lands: (1) separation of hound-hunting spatially and temporally from other types of hunting and outdoor recreation, (2) consideration of regional demand for deer hunting with dogs and opportunity on other lands nearby, (3) requirement of a 33,000-acre minimum for all types of deer dogs and a 15,000-acres minimum for small dogs only (which cover less area), and (4) a good road system to facilitate interception and retrieval of dogs. In 2012, the U.S. Forest Service closed the Kisatchie National Forest in Louisiana to hunting deer with dogs due to chronic conflicts between hunters who use dogs, still hunters, and adjacent landowners (Louisiana Sportsmen Alliance vs. Vilsack et al. No. 13-31260 5th Circuit U. S. Court of Appeals 2014).

Closures by Time Period

For a variety of reasons, temporal closures or reductions for deer hunting with dogs have been implemented in some states (VDGIF 2008a). In Virginia, dogs are prohibited when hunting deer on Sundays (with a weapon, § 29.1-521), during the early archery and early muzzleloader seasons (4VAC15-90-70, 4VAC15-90-80), and during the first 14 hunting days of the open deer season in Greene and Madison counties (4VAC15-90-260). For several decades in Mississippi, dogs have been prohibited during portions of the deer season to allow still hunters an opportunity to hunt without disruptions by dogs. Prior to the establishment of the deer dog hunting permit program in Georgia in 2003, dog-hunting conflicts were addressed by closing counties or portions of counties where problems were most intense, reducing the length of deer season when dogs could be used, or a combination of both. In 2002, a proposal to reduce the length of the deer dog hunting season in Georgia counties with the most intense conflicts was not adopted, but precipitated the law resulting in a permit system (VDGIF 2008a).

Of the nine states (including Virginia) that allow deer hunting with dogs in the Southeast, three states provide deer chase/training opportunities outside the deer hunting season (Alabama, Arkansas, and Florida), three states provide general periods where various game (including deer) may be chased during the closed season (Louisiana, Mississippi, and North Carolina), and three states have no provisions for legal deer dog training outside of the open deer hunting season (Georgia, South Carolina, and Virginia (SEDSG).

Hunting From or Near Roads

The release of dogs on adjacent prohibited lands, interference with traffic, and a poor image of hunting are aspects of hunting from or near roads that have led to complaints about deer hunting with dogs (VDGIF 2008a). States address road-hunting in different ways. For example, Alabama law prohibits the release of deer hunting dogs from public roads or rights-of-way without permission of adjacent landowners (220-2-.112). Louisiana law (56:116.3A(1)(b)) prohibits hunting or shooting deer while on a public highway or right-of-way, further specifying it is unlawful to "stand, loiter, hunt, or shoot" game from a public road or right-of-way. In South Carolina, it is unlawful to hunt from a public road or railroad right-of-way if the person does not have permission to hunt immediately-adjacent land; it is also unlawful to hunt from any road, right of way, property line, boundary, or property when a hunting dog has entered prohibited property nearby (SC Code 50-11-760 and 50-11-770). Other southeastern states (e.g., Arkansas, Florida, and Mississippi) have statewide prohibitions on hunting from or near public roadways; Virginia and North Carolina have varying state and local laws regarding road-hunting (SEDSG).

Permit/Registration Programs for Dog Hunters

To encourage deer hunters to keep dogs on properties where they have permission, Alabama, Georgia, and Florida have developed permit or registration systems to increase accountability of deer hunters using dogs. These states have implemented programs that require special permits or licensing for deer hound-hunters or hound-hunting clubs using private lands in those counties where allowed. A permit has also been established on one National Forest in Mississippi (Table

1; SEDSG). In 2006, a movement was supported by an association of deer dog hunters in Arkansas to implement a permit system like that in Georgia, but it never materialized (SEDSG).

Permit systems for deer hunting with dogs have been developed only after other approaches failed, and complaints have generally declined following establishment of these programs (SEDSG). Because proposals threatened to eliminate deer hunting with dogs in Georgia, the Georgia Dog Hunters Association promoted a law to protect both landowner and deer dog hunting interests in 2003, resulting in the Georgia permit system (VDGIF 2008a).

Table 1.	Basic attributes	of permit	programs for	hunting deer	with dogs.
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State	Affected Properties	Minimum Acres	Permittee/Registrant	Cost
Alabama	All or part of 15 (of	200 (in 14 cos.);	Landowner, lessee	None
	67) counties*	400 (in 1 co.)**		
Florida	Private lands where	None	Landowner, lessee	None
	lawful			
Georgia	Private lands where	250 (owned)	Hunter license;	\$5 dog
	lawful	1000 (leased)	Landowner permit	hunter
				license
Mississippi	Homochitto	None	Club	None
	National Forest			

^{*} Individual property owners in 2 of these 15 counties may hunt with dogs on their own property without a permit.

Regulatory Authority of the VDGIF Board

Chapter 5 in the 2007-2009 *Hunting with Hounds in Virginia: A Way Forward* technical report contains a detailed summary of the various state and local laws and regulations pertaining to hunting with dogs in Virginia, as well as some discussion of laws of other states (VDGIF 2008a).

The Board has broad authority to pass regulations in the area of hunting. This includes hunting with dogs. No regulation, however, can contradict the terms of a statute in the Code of Virginia. There are several sections where the Code establishes rules for hunting with dogs that cannot be changed by Board regulations and could only be changed through General Assembly action:

• \$18.2-136 of the Code of Virginia, often called the "right to retrieve" law, provides:

"Fox hunters and coon hunters, when the chase begins on other lands, may follow their dogs on prohibited lands, and hunters of all other game, when the chase begins on other lands, may go upon prohibited lands to retrieve their dogs, falcons, hawks, or owls but may not carry firearms or bows and arrows on their persons or hunt any game while thereon. The use of vehicles to retrieve dogs, falcons, hawks, or owls on prohibited lands shall be allowed only with the permission of the landowner or his agent. Any person who goes on prohibited lands to retrieve his dogs, falcons, hawks, or owls pursuant to this section and who willfully refuses to identify himself when requested by the landowner or his agent to do so is guilty of a Class 4 misdemeanor."

^{**} Minimum acreage restriction is not in effect for landowners in the two counties with the landowner exemption.

- \$29.1-516 (Deer) makes it illegal to hunt deer with dogs in the counties west of the Blue Ridge Mountains. The Board may regulate or even prohibit deer hunting with dogs in eastern counties, but it cannot legalize deer hunting with dogs in western counties.
- \$29.1-516 (Fox) establishes "a continuous open season for hunting with dogs only" for fox. Thus, the Board cannot prohibit the use of dogs in fox hunting or close the season, but it may still have some authority to regulate how dogs are used in fox hunting.
- \$29.1-516.1 authorizes the use of tracking dogs to retrieve wounded or dead bears or deer.
- §29.1-521(A)(1) forbids the use of dogs in deer hunting with weapons on Sundays.
- Since the Department can only issue licenses that are set in the Code, a separate license/permit for dogs or dog hunting would require General Assembly authorization.

Aside from these limitations, the Board generally has authority to regulate the use of dogs in hunting. As with all regulations, any amendment would have to be advanced through the proper regulatory process and reviewed by the Office of the Attorney General to ensure that it is consistent with the authority granted to the Board by the Code of Virginia.

Recommended Approach

Based on the Recreation Goal in the newly-revised 2015-2024 Virginia Deer Management Plan (VDGIF 2015), the goal of the Department of Game and Inland Fisheries going forward is to preserve the heritage and tradition of hunting deer with dogs, for both management and recreational benefits, while ensuring that hunting methods are consistent with and respect the rights of private property owners and other citizens.

The sixth objective of the Recreation Goal in the Deer Plan (p. 81) provides several potential strategies to address conflicts between deer hunting with dogs and private property owners:

- a. Using surveys and other methods, identify and describe deer hunting activities (e.g., when, where, frequency), including hunting with dogs, that may result in conflicts with landowners and other Virginia citizens.
- b. Develop and implement educational programs, regulations, guidelines, and recognition programs to reduce conflicts between deer hunters and other Virginia citizens.
- c. Discourage illegal activities that fail to respect the interests and rights of landowners and other citizens through law enforcement, incentives, and other deterrence strategies.
- d. Establish a dialogue between deer hunters and landowners who experience problems or conflicts with deer hunters.

Guided by the Deer Plan, a recommended approach is outlined below. This approach focuses on deer hunting with dogs, although some discussions and solutions could involve hunters of other game species.

- (1) Survey landowners and hunters in the area of Virginia where deer hunting with dogs occurs to characterize interactions and impacts (positive and negative) associated with deer hunting dogs or hunters who use dogs. Although a variety of information currently exists (e.g., complaints, public comments), there are limitations with these data. In addition to providing better information on the distribution, timing, frequency, and types of interactions/impacts, surveys should be designed to illustrate the motivations, values, and expectations of the different parties involved. Such information could explain why interactions become conflicts and provide a clearer articulation of the issues. Representative samples of private landowners and hunters (who hunt deer with dogs or who may be impacted by deer hunting with dogs) should be of sufficient size to allow analysis at relevant geographic scales. Hunters and landowners should be involved in the development of questionnaire topics and pre-testing of the survey.
- (2) Convene a deer dog hunter/landowner stakeholder group to:
 - a. Establish an ongoing dialogue among stakeholders;
 - b. Vet questions for the survey described above;
 - c. Identify and define issues;
 - d. Review and research strategies that have been used to address similar issues in Virginia and elsewhere;
 - e. Make recommendations for non-regulatory or regulatory solutions; and
 - f. Perform other duties, as needed.

The stakeholder group will be composed of deer hunters who use dogs, deer hunters who do not use dogs, and private landowners who are impacted by deer hunters. Members of the group will be selected and invited by VDGIF based on their demonstrated ability to represent their concerns constructively, tolerate disparate perspectives, and resolve problems through teamwork. VDGIF should establish a vision for the group, but members of the group should help develop specific objectives, meeting schedules, and ground rules. Minutes of group meetings will be maintained and made available upon request. This group will remain active for as long as it is deemed productive by a majority of the group and/or VDGIF.

(3) If progress is not achieved through surveying and collaborating with stakeholders, as outlined above, other plans of action could be considered. This could include non-regulatory actions (e.g., education, changes in policy), regulatory amendments, and working toward legislative solutions. Options could include strategies identified by the deer dog hunter/landowner stakeholder group, preferences based on survey results, and options that already have been used in Virginia or other states.

Literature Cited

- Kozlowski, S. G. Lupis, S. McMullin, and B. Wright. 2008. Hunting with hounds in Virginia: a way forward, content analysis of written correspondence. Department of Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, VA.
- McMullin, S., S. G. Lupis Kozlowski, and B. Wright. 2008. Summary of responses to web-based and paper informal surveys regarding hunting with hounds in Virginia. Department of Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, VA.
- Rose, A. K. 2007. Virginia's forests, 2001. US Department of Agriculture Forest Service, Resource Bulletin SRS-120, Asheville, NC 140pp.
- USDA. National Agricultural Statistics Service Virginia Field Office statistics. http://www.nass.usda.gov/Statistics_by_State/Virginia/. Assessed December 2015.
- VDOF. 2014. 2014 State of the Forest: Annual Report on Virginia's Forests. Virginia Department of Forestry. Charlottesville, VA.
- VDGIF. 2005. Virginia survey of hunter harvest, efforts, and attitudes 2004-05. Richmond, VA.
- VDGIF. 2006. Virginia survey of hunter harvest, efforts, and attitudes 2005-06. Richmond, VA.
- VDGIF. 2007. A summary of Virginia hunters' opinions on Sunday hunting. Virginia Department of Game and Inland Fisheries. Richmond, VA.
- VDGIF. 2008a. Hunting with hounds in Virginia: a way forward. Technical Report, Richmond, VA.
- VDGIF. 2008b. Virginia survey of hunter harvest, efforts, and attitudes 2007-08. Richmond, VA.
- VDGIF. 2009. Virginia survey of hunter harvest, efforts, and attitudes 2008-09. Richmond, VA.
- VDGIF. 2015. Virginia deer management plan, 2015-2024. Richmond, VA.

Appendix 1. Dog-related hunting complaint rates by county in Virginia, July 2014-June 2015.

County	Dog Complaints	Total Complaints	Complaint Rate
Brunswick	8	31	25.8%
Greensville	3	14	21.4%
Richmond	6	34	17.6%
Cumberland	7	40	17.5%
Mecklenburg	11	65	16.9%
Madison	5	32	15.6%
Prince Edward	4	27	14.8%
Powhatan	5	38	13.2%
Louisa	10	77	13.0%
Hanover	9	77	11.7%
Halifax	11	97	11.3%
King and Queen	6	55	10.9%
Lunenburg	5	46	10.9%
Nottoway	3	28	10.7%
Buckingham	7	66	10.6%
Sussex	3	29	10.3%
Campbell	6	60	10.0%
Charlotte	3	30	10.0%
Mathews	6	60	10.0%
Chesapeake	7	71	9.9%
Westmoreland	8	86	9.3%
Alleghany	4	44	9.1%
Amelia	4	45	8.9%
Surry	3	35	8.6%
Isle of Wight	4	49	8.2%
Prince George	4	50	8.0%
Appomattox	3	38	7.9%
Lancaster	3	39	7.7%
Pittsylvania	11	146	7.5%
Spotsylvania	6	81	7.4%
Accomack	4	57	7.0%
Warren	2	29	6.9%
Dinwiddie	5	73	6.8%
King George	5	76	6.6%
Fauquier	4	66	6.1%
King William	3	55	5.5%
Suffolk	4	74	5.4%
Orange	2	39	5.1%
James City	3	63	4.8%

County	Dog Complaints	Total Complaints	Complaint Rate
Northumberland	2	45	4.4%
Rockbridge	2	46	4.3%
Virginia	2	46	4.3%
New Kent	2	47	4.3%
Albemarle	4	112	3.6%
Rappahannock	1	28	3.6%
Amherst	2	57	3.5%
Charles City	1	30	3.3%
Caroline	2	62	3.2%
Carroll	2	65	3.1%
Gloucester	3	98	3.1%
Patrick	1	34	2.9%
Culpeper	2	75	2.7%
Southampton	1	38	2.6%
Bland	1	39	2.6%
Fluvanna	1	39	2.6%
Rockingham	3	117	2.6%
Essex	1	41	2.4%
Goochland	1	46	2.2%
Henry	1	46	2.2%
Nelson	1	47	2.1%
Franklin	2	95	2.1%
Henrico	1	49	2.0%
Bedford	2	100	2.0%
Wise	1	53	1.9%
Page	1	54	1.9%
Augusta	2	112	1.8%
Prince William	1	65	1.5%
Washington	1	88	1.1%
Grayson	1	92	1.1%
Bath	0	26	0.0%
Botetourt	0	66	0.0%
Buchanan	0	48	0.0%
Chesterfield	0	63	0.0%
Clarke	0	12	0.0%
Craig	0	12	0.0%
Dickenson	0	37	0.0%
Fairfax	0	49	0.0%
Floyd	0	44	0.0%
Frederic	0	58	0.0%
Giles	0	27	0.0%

County	Dog Complaints	Total Complaints	Complaint Rate
Greene	0	21	0.0%
Highland	0	27	0.0%
Lee	0	43	0.0%
Loudoun	0	88	0.0%
Middlesex	0	29	0.0%
Montgomery	0	40	0.0%
Northampton	0	30	0.0%
Pulaski	0	78	0.0%
Roanoke	0	94	0.0%
Russell	0	48	0.0%
Scott	0	97	0.0%
Shenandoah	0	61	0.0%
Smyth	0	46	0.0%
Stafford	0	71	0.0%
Tazewell	0	61	0.0%
Wythe	0	92	0.0%
York	0	35	0.0%
Hampton	0	8	0.0%
Newport News	0	13	0.0%
	255	5,412	

Appendix 2. "The Hunting Dog Owner's Code of Ethics" by Virginia Hunting Dog Alliance

- "1. I will provide proper care for my dogs including food, water, medical care and shelter and will firmly insist other hunting dog owners do the same.
- 2. I will provide proper identification and contact information on all of my dogs.
- 3. I will diligently work to retrieve my dogs by the end of the hunt recognizing it is my moral and ethical responsibility to retrieve every dog as quickly as possible. If I cannot locate a dog by the end of the hunt, I will do my best to retrieve it as quickly thereafter as reasonably achievable.
- 4. I will only release my dogs on property on which I have permission to hunt and will not tolerate others releasing dogs on property where they do not have permission to hunt.
- 5. I will find a proper home or shelter for any dog that I determine I cannot or will not keep. I will not abandon any dog and will not tolerate any one who does.
- 6. I will consider myself a guest of the landowner, whether private, state or federal, always seeking permission upfront, and will conduct myself so I will be welcome in the future.
- 7. I will do my best to tread lightly while afield, to carefully use only established roads and trails, to leave any gates as I find them (open or closed), and foremost to leave no litter.
- 8. I will promote fair chase of game animals and ethical treatment of hunting dogs.
- 9. I will strictly follow the rules of safe gun handling, obey all game laws and regulations and will report those who violate game laws and regulations.
- 10. I will actively encourage young and new hunters to participate in and enjoy the thrill and camaraderie of hunting with dogs.
- 11. While Virginia's "Right to Retrieve" law gives me legal standing to retrieve my dogs from any property, I will practice the "Right of Respect" toward landowners with whom I come into contact and their property. I will admonish my fellow hunters to do the same.
- 12. I will always be mindful that I am the public face of all dog hunters when afield or in the community. I will strive to hold myself and others to the highest standards of behavior when hunting with my dogs so we all reflect well on the ancient and honorable tradition of hunting with dogs."