Use of Citizen Advisory Committees to Direct Deer Management in Pennsylvania

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ABSTRACT Effective deer management must consider diverse stakeholder values. The Pennsylvania Game Commission (PGC) implemented Citizen Advisory Committees (CACs) to measure deer-human conflicts and tolerance for deer populations in each Wildlife Management Unit (WMU). There was a general lack of public interest in participating in CACs. Citizen Advisory Committees often lacked representation for key stakeholder groups and exhibited a strong hunter bias. While the CAC process seemed to benefit those involved, the scope was limited and likely did not represent the values and attitudes of the entire citizenry within the Wildlife Management Unit. As a result of this CAC experience, the PGC is moving to a citizen survey to ensure the interests of all are represented, as the future success of deer management depends on greater understanding of all stakeholder values and attitudes.

OBJECTIVES

1. To provide an opportunity to inform stakeholders on the mission of the Pennsylvania Game Commission (PGC), complexities of deer management, and the importance of proper management.

2. To provide an opportunity for the PGC to understand stakeholder values regarding deer management.

3. To provide an opportunity for stakeholders to interact with one another and increase understanding of different stakeholder values and concerns.

4. To provide an opportunity for stakeholders to have direct input concerning deer population objectives for a Wildlife Management Unit.

INTRODUCTION

See appendix 1 for final report.

METHODS

See appendix 1 for final report.

RESULTS

See appendix 1 for final report.

DISCUSSION

[a] Final report for Project 06210, Job 21012, 29 June 2012

See appendix 1 for final report.

LITERATURE CITED

See appendix 1 for final report.

Appendix 1. Manuscript of CAC final report submitted to the Wildlife Society Bulletin accepted for publication.

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KEY WORDS: citizen advisory committees, deer-human conflicts, *Odocoileus virginianus*, Pennsylvania, public input, white-tailed deer

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Effective deer management must consider diverse stakeholder values. In addition to biological aspects, social, economic, and political realities influence deer management success. To address the social, economic, and political challenges, many states have used public involvement processes with varying degrees of success (Curtis and Hauber 1997, Green et al. 1997, Guynn and Landry 1997, Kilpatrick and Walter 1997, Lafon et al. 2004).

Public involvement often engages stakeholders at the local level to formulate deer management goals and strategies for a specific area (Decker et al. 2004). Wildlife managers have raised several concerns with this approach to natural resource management. Concerns include reaching a representative group, producing conflict instead of resolving it, reducing the status of trained professionals in management decisions, and questioning whether citizens are informed enough to make resource management decisions (Green et al. 1997). Acknowledging these possible drawbacks, community-based management approaches also have the ability to increase public knowledge of the resource, improve agency image, empower citizens, and increase support for controversial management strategies (Stout et al. 1996, Curtis and Hauber 1997, Irvin and Stansbury 2004, Lafon et al. 2004, Marshall & Jones 2005).

Public involvement can be gained in a variety of ways. Unsolicited comments, surveys, public meetings, and focus groups are most common (Stout et al. 1996, Chase et al. 2002).

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When 3 public involvement methods (unsolicited input, systematic survey, and citizen task force) were compared in New York, deer management recommendations derived from each were similar (Stout et al. 1996). However, solicited-participation methods that gathered information from diverse stakeholders resulted in positive feedback about the wildlife agency and ensured that the agency was responsive to a broad range of public needs (Stout et al. 1996).

Before identifying a public involvement method, the agency must understand the context of the situation and define the objective(s) for stakeholder involvement (Chase et al. 2002). Agency objectives, generally, fall into 4 categories: improving the management climate, providing input for decisions, helping to make decisions, and helping to implement management actions (Chase et al. 2002).

Although all public involvement processes require stakeholder effort, agency objectives determine the level of stakeholder involvement. Citizen task forces or advisory committees are used to improve the management climate, provide input for decisions, and help to make management decisions (Chase et al. 2002). They demand a large commitment from stakeholders but may yield the greatest rewards (Stout et al. 1996, Decker et al. 2004, Lafon et al. 2004).

To address the perpetual deer management controversy (Kosack 1995, Frye 2006), the Pennsylvania Game Commission (PGC) used public involvement to develop its 2003–2007 deer management plan. Individuals representing the interests of sportsmen, agriculture, forestry, environmental conservation, urban-suburban municipalities, and the PGC identified deer management goals. The group unanimously agreed to goals, which included managing deer for: 1) a healthy and sustainable deer herd, 2) safe and acceptable levels of deer-human conflicts, and 3) healthy and sustainable forest habitat. With the goals defined, PGC staff established associated objectives and measures for each goal. Biological data collection provided information to assess achievement of deer and forest health goals. A structured form of public input was identified as the best method of assessing deer-human conflicts.

The PGC implemented Citizen Advisory Committees (CACs) to measure the level of deer-human conflicts and tolerance for deer populations across Pennsylvania. Recommendations from CACs were considered as one of three inputs, along with forest health assessment and deer health assessment, used to formulate proposals from PGC staff to the Board of Commissioners who possessed all decision-making authority.

The PGC recently concluded a complete cycle of CACs in 22 WMUs. In this paper, we describe our use of CACs to provide input into the deer management recommendation process. We provide details on the conduct of CACs and subsequent results. We conclude with a discussion of the successes and failures of CACs in Pennsylvania. Our objective is to share this experience in order to inform other deer management programs of the benefits and pitfalls when using this type of public input process.

METHODS

Forming Citizen Advisory Committees

In 2006, the PGC piloted the CAC process in WMU 4B. That year, we solicited nominations from PGC staff only. In 2007, we expanded the nomination process to include PGC staff and outside organizations (Table 1). The nomination process again expanded to include the general public for the remaining 17 CACs (2008-2011). Annually, the public nomination process was announced through a news release. Interested individuals downloaded a nomination form from the PGC website providing their contact information, the WMU to which they were applying, and the stakeholder group they were interested in representing and then submitted it via United States Postal Service. We contacted more than 65 independent state, county, and local organizations (Table 1) via email explaining the purpose of the CAC and the need for nominations. We sent a follow-up email a month later.

To maintain the objectiveness and credibility of the process, staff from the Office of Strategic Services interviewed nominees and facilitated meetings. The Office of Strategic Services is an internal consulting group for Pennsylvania State government that provides business support for State agencies and is not directly affiliated with the PGC. These independent facilitators interviewed nominees by phone and selected members for the CACs. Nomination criteria included perceived open-mindedness, good interpersonal skills, a willingness to collect input outside of meetings, living in the WMU of the CAC (except for the non-resident sportsmen representative who lived outside the WMU), and not holding an office in an organization that was related to the stakeholder group they represented. For example, the president of a sportsmen club could not serve as the sportsmen representative. This reduced the risk of an individual representing his or her organization's viewpoints instead of the viewpoints of his or her stakeholder group as a whole. When possible, 2 individuals were selected to represent each stakeholder group. Each member of the CAC represented a group of stakeholders and was vested with the decision-making power for that group. Members were to present values and concerns of their stakeholder group and not their own individual viewpoint.

Understanding Roles

Each CAC member obtained feedback regarding their stakeholder group’s perspective by contacting individuals in the community. Members of the CAC then provided a summary report of their findings to the CAC. In cases where 2 members existed for a stakeholder group, both were required to attend the first meeting, but only 1 was required to attend and represent the stakeholder group at the second meeting.

Pennsylvania Game Commission deer biologists attended each CAC meeting. Biologists served as technical advisors by providing information on deer management, including biological data, social data, and necessary background material. Pennsylvania Game Commission staff had no voting or veto power at meetings.

Facilitators organized, lead, and conducted meetings with a focus on positive interaction and consensus among members. Facilitators directed the focus of discussions to the acceptable levels of deer impacts and populations and not deer management procedures. Facilitators also served as the point of contact for CAC members and completed the final report of CAC proceedings.

CAC Meetings

We held 2 CAC meetings in each WMU. Citizen Advisory Committee meetings were not advertised or open to public attendance. The first meeting was an orientation meeting. Members of the CACs were introduced to one another, facilitators, and PGC staff. Facilitators provided an explanation of the CAC purpose and function to each member. Pennsylvania Game Commission staff presented the agency responsibilities and mission, a brief history of deer management in Pennsylvania, and current deer management information for the WMU. At the end of the meeting, facilitators tasked each CAC member to contact constituents in their stakeholder group and gather information on their values regarding deer impacts and population in the WMU. We provided an individual opinion survey form to aid them with this charge.

The second meeting was held approximately 1 month after the first meeting. Members of the CAC summarized results of their constituent contacts. Facilitators lead the discussion as to whether the deer population should increase, decrease, or be stabilized in the WMU. Once a consensus was reached (i.e., agreement of all but one committee member), the meeting ended and the CAC was disbanded. Facilitators completed a report summarizing the events of both CAC meetings. These reports included the CAC recommendation to increase, decrease or stabilize the deer herd in the WMU. Reports were presented to the PGC for consideration in deer management actions and posted on the agency website.

RESULTS

We received more than 700 nominations with nearly half of them wanting to represent sportsmen interests (Table 2). Lack of nominations left some groups unrepresented in 16 of 22 WMUs (Table 3). Forty-four meetings were held in 22 WMUs from 2006–2011. Meetings ran a minimum of 2 hours resulting in a conservative estimate of 88 PGC man-hours. This does not include facilitator time or time spent seeking nominations, coordinating facilities, and preparing presentations.

Of the 260 individuals that participated on CACs, <10 did not hunt. Some participants recognized this hunter bias. Anonymous comments on exit surveys included “Committee members should make more of an effort to reach non-hunters. Results were weighted heavily towards the hunting population” (2008); “Try to refine the volunteer process to include more non-hunters” (2009); “Broader interest groups - most were hunters” (2010); and “It’s hard for everyone not to look at their hunter wants” (2011).

Twenty of 22 CACs provided a consensus deer population recommendation (Table 4). Most CACs provided a simple increase, decrease, or stabilize recommendation (Table 4). However, 6 CACs provided a recommendation to increase the deer population contingent on habitat measures or deer program changes. Two CACs did not come to a consensus recommendation.

When considering deer health measures and forest habitat health measures in conjunction with CAC recommendations, we followed CAC recommendations in 16 WMUs. These recommendations included those CACs that recognized the importance of forest habitat health

and agreed to an increase in deer abundance only if forest health achieved its objective. One CAC further stipulated that regulations for the Deer Management Assistance Program that were altered by the Board of Commissioners for the 2010-11 hunting season be returned to the prior year's format. At the time of evaluation, the forest habitat health measure in these 6 WMUs did not support an increase in the deer herd; therefore, we did not recommend an increase which was in agreement with the CAC recommendation.

We did not follow the recommendation of the CAC in 4 WMUs. Failure of the forest health measure to achieve its objective prevented us from recommending an increase in the deer herd as the CAC suggested.

DISCUSSION

Public Response

Given the ongoing and often heated debate of deer management in Pennsylvania (Kosack 1995, Frye 2006), we expected high interest in CAC participation. This was not the case. It was difficult to gather nominations for each stakeholder group despite multiple avenues of recruitment. The pool of sportsmen candidates was deep in most cases but even this stakeholder group suffered from lack of participation in some WMUs. Core groups with regard to deer management issues (i.e., forestry, agriculture, and conservation) only had one nomination in several WMUs. This lack of interest resulted in no representation of these groups on 6 CACs.

Interpreting this lack of interest is difficult. Was it related to method of recruitment or general public apathy, or did it indicate that deer management was actually not as important an issue as some believe? Of these possibilities, only method of recruitment can be addressed within the CAC process. We completed both focused and wide-ranging efforts to solicit nominations from specific stakeholder groups and the general public. Thus, we believe it would be difficult to improve on our method of solicitation to increase recruits to represent stakeholder groups in each WMU. Results of a citizen survey show that a majority of people are: 1) satisfied with the number of deer, and 2) deer really are not important to them (Duda et al. 2012). Public apathy and the perception of a deer management issue may have negatively impacted success of recruiting for the CAC process. Therefore, it is prudent to accurately gauge the level of public interest on an issue before embarking on a method of public input that requires active involvement of volunteers via nominations as opposed to passive involvement (e.g., survey).

This indifferent response from the general public to CACs was in contrast to communications from some groups and state representatives. After the completion of the pilot CAC in 2006, several conservation and agriculture groups complained that they were excluded from the CAC process and raised the question as to whether the CAC meetings were subject to the Sunshine Act. The Sunshine Act (65 Pa.C.S.A. § 701) is to "insure the right of …citizens to have notice of and the right to attend all meetings of agencies at which any agency business is discussed or acted upon." Under this act, the public would have to be provided notice of these meetings as well as be able to attend.

There is some general confusion about the role of public input into the process of deer management in Pennsylvania. A State Representative even sponsored 2 bills (HB 586 in 2007 and HB 200 in 2009) to define advisory committees in Title 34 (Game and Wildlife Code), subject them to the provisions of the Sunshine Act, and post committee member information on the PGC's website. While these bills would affect all advisory committees conducted by the PGC, CACs for deer management were the target. Both were referred to the Game and Fisheries Committee, but not signed into law. Members of the CACs were volunteers, not PGC employees. Members of the CACs did not discuss agency business, nor did they have the power to act upon PGC business. They provided public input into the deer program similar to the way a hunter reports their deer harvest to the PGC. In both cases, citizens provide input to PGC staff who then analyze the input, quantitatively or qualitatively as is appropriate, and formulate management recommendations. After legal review, it was determined that CACs were not subject to the Sunshine Act.

Public complacency has been noted as a disadvantage of citizen participation (Irvin and Stanbury 2004). Our experience with CACs in Pennsylvania supports this conclusion. While there was indication of public intent to participate, few were willing to make the effort to join the process when given the opportunity. Devising alternative strategies that allow full public participation without substantial commitment of time by citizens may be more effective for agency staff and still deemed acceptable by public stakeholders.

Hunter Bias in CAC

Significant differences may be found between participants in advisory or planning meetings and the general public (Johnson et al. 1993, Marshall and Jones 2005). According to the latest census information, there are 12.7 million people living in Pennsylvania (U.S. Census Bureau 2012). Less than 1 million hunting licenses are sold in Pennsylvania, and of those 80% hunt deer (PGC, unpublished data). However, nearly every member of a CAC was a hunter regardless of the stakeholder group they represented. "Because citizen participants are not paid for their time, committees may be dominated by strongly partisan participants whose livelihood or values are strongly affected by the decisions being made" (Irvin and Stansbury 2004:59). This was clearly the case for CACs. Members of the CAC often represented hunters within specific stakeholder groups instead of the overall stakeholder group. As a result, stakeholder positions presented in the CAC were often biased towards hunters.

Although CACs possessed a hunter bias, most recommendations were compatible with deer management goals. In 16 of the 20 WMUs where a CAC provided a consensus recommendation, we followed the CAC recommendation. In most cases, CAC members put forth the effort and worked together to make an informed and balanced recommendation.

Role of Wildlife Managers

A concern of citizen involvement in management decisions is that it could reduce the status of trained professionals (Green et al. 1997). This concern is entwined with that of questioning whether citizens are informed enough to make these decisions. The trend of public involvement in wildlife management will likely continue to increase as traditional precepts are

replaced by concepts of multidiscipline integration (Riley et al. 2002). If so, successful wildlife management will need to encompass biological and social sciences while integrating stakeholder participation. As part of this shift, one currency of wildlife management is impacts, not species abundance (Riley et al. 2002, Lischka et al. 2007).

With the development of the 2003-2007 deer management plan, the PGC fundamentally changed deer management in Pennsylvania from deer density-based objectives to impact-based objectives (Pennsylvania Game Commission 2003). Wildlife scientists objectively define and describe effects of interactions with respect to wildlife. Stakeholders judge the importance of these effects based on the impacts to themselves (Riley et al. 2002). A key role of managers and biologists is communicating effects and possible impacts of wildlife interactions to stakeholders. Therefore the role of trained professionals is not reduced by citizen involvement, but is in fact intensified. If managers do not effectively communicate the biological effects of wildlife interactions, citizen decisions regarding those effects will not be informed. Given the complexity of biological systems and interactions, communicating this information to those without a science background can be a challenge. To improve their knowledge of deer impacts and management, CAC members received information regarding deer biology, management, and data at the first meeting.

Better communication by biologists leading to more informed CAC members does not guarantee decisions for the greater good of the resource. Decisions that favor the opinions of persuasive members of the group remain possible (Irvin and Stansbury 2004). This was observed in at least one CAC where a member was adamant about his decision and persuaded other members to go along with it. Three other members of the group wanted a slight increase (Highway safety), no change (Public landowners), or a decrease (Agriculture) in the deer population. If these 3 members held to their stakeholder views, a consensus recommendation would not have been reached, as all but one member must agree with the CAC recommendation. The ultimate CAC consensus recommendation was to increase the deer herd 25-50%, which was the largest recommended increase of any CAC.

CAC Recommendations and Authority

If a CAC recommendation was contradictory to biologically-responsible management according to measures of deer health or forest habitat health, they were not followed. Although the PGC actively pursued public input via the CAC, we did not hand the decision-making process over to them. This helped to insulate the process and nullified potential selfish decisions by persuasive members of the group. As stated previously, measures and assessments of deer herd health and forest habitat health were considered along with public desires. Facilitators and PGC staff were clear about roles and limitations of the recommendations made by the CACs, but some CAC members were still vocally dissatisfied when their biologically-unreasonable recommendations were not followed. Satisfaction of CAC members appeared to be related to the difference between the CAC recommendation and the PGC staff recommendation, rather than the CAC process itself.

Despite repeated explanations of the CACs' role in deer management recommendations, many CAC members apparently did not fully understand it or communicate it well to their

stakeholder group. The shortfall of the CAC process seemed to be, in part, expecting all CAC members to have the same ability to process complex information and issues as well as the interpersonal skills to relate these to others. Given the difficulty in recruiting participants, setting these types of qualifying standards was not feasible, nor would they foster an atmosphere of inclusion. However, this should be acknowledged as a limitation for this process.

Perspective of an Independent Group

In 2009, the Pennsylvania Legislative Budget and Finance Committee contracted with the Wildlife Management Institute (WMI) to conduct an evaluation of the PGC's deer management program. The Wildlife Management Institute reviewed the scientific foundation of deer management goals, deer population and habitat measurements, and citizen input procedures. It was concluded by WMI that "the CAC process, while grounded in social science, may not be an efficient or fully objective method to assess citizen desires in each of the 22 WMUs" (WMI 2010:5). While WMI acknowledged that the CAC process was a reasonable and rational approach of including stakeholder input, the issue of over-representation of hunters was evident. It was suggested that a statistically viable public survey to measure citizen preferences for deer may be a more suitable approach to integrate public will into deer management, and WMI noted that "greater attention needs to be given to scientific human dimensions studies, not only for hunters, but of other stakeholders" (WMI 2010:64).

It has been shown that a public survey can assess the views of a representative sample of citizens (Stout et al. 1996, Green et al. 1997). Given the public complacency and lack of representation of CACs, transitioning to a survey that captures the views of non-hunting Pennsylvanians (i.e., 97% of the population) is preferable. However, while properly designed surveys are scientifically valid, convincing people of their validity can be a challenge (Chase et al. 2004). Therefore, more effort will be required to explain the scientific validity of a survey to the public, but this effort would likely be comparable to the time and energy devoted to CAC development and implementation that reached only a limited number of residents and yielded results that were not representative of the population as a whole.

MANAGEMENT IMPLICATIONS

Citizen input will remain a part of the deer management program in Pennsylvania. As a result of this CAC experience, the PGC is moving to a citizen survey to ensure interests of all are represented, as the future success of deer management depends on greater understanding of all stakeholder values and attitudes. Citizen Advisory Committees possessed both advantages and disadvantages. Advantages included: 1) direct communication between stakeholder representatives and agency biologists, and 2) equal representation for each stakeholder group (i.e., each group had one voting member on the CAC), regardless of population size. Disadvantages included: 1) difficulty in getting people to serve on CACs, 2) CACs often lacked representation of key stakeholder groups, 3) hunter bias was evident and difficult for some participants to overcome, and 4) benefits were limited to participants. Based on our experience, the true value of a public advisory committee is providing citizens direct interface and communication with agency biologists, not for evaluating their attitudes for management actions.

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LIST OF FIGURES

Figure 1. Pennsylvania's Wildlife management units (WMUs). WMUs 1A-B represent the northwest glaciated plateaus units. WMUs 2A-G represent the non-glaciated Allegheny plateaus units. WMUs 3A-D represent the northeast glaciated plateaus units. WMU 4A-E represent the ridge and valley units. WMUs 5A-D represent the piedmont units. WMUs 2B, 5C, and 5D contain the cities and immediate suburbs of Pittsburgh and Philadelphia and were not included in this analysis.

Table1. Organizations from which Citizen Advisory Committee (CAC) nominations were requested in Pennsylvania, 2006-2011.

Organizations Contacted
Pennsylvania Audubon
Pennsylvania Farm Bureau
Pennsylvania Landscape & Nursery Growers Association
Western Pennsylvania Conservancy
Nature Conservancy
Northeast Wildlife Damage Cooperative
Pennsylvania Land Trust Association
Pennsylvania Forestry Association
Quality Deer Management Association
Bluebird Society of Pennsylvania
County Conservation Districts
Pennsylvania State University Cooperative Extension Offices
Local Audubon Chapters
County Woodland Owners Associations
Local Bird & Nature Clubs
Local Land Conservancies

Table 2. Number of Citizen Advisory Committee nominations received for each stakeholder group by Wildlife Management Unit (WMU) in Pennsylvania, 2006-2011.

Stakeholder Group	Wildlife Management Unit																				
	1A	1B	2A	2B	2C	2D	2E	2F	2G	3A	3B	3C	3D	4A	4B	4C	4D	4E	5A	5B	5C	5D
Homeowners	6	3	3	16	—	0	2	6	0	0	—	1	7	3	2	5	5	1	5	4	2	11
Resident Sportsman	23	9	20	27	9	14	8	16	5	5	3	14	12	28	5	18	40	17	15	22	3	18
Non-resident Sportsmen	—	—	—	—	—	1	—	2	1	1	5	0	—	5	7	—	6	—	—	—	—	—
Conservationist	10	4	4	4	5	3	1	11	0	3	5	2	4	7	2	9	15	6	8	12	4	7
Business	8	4	8	2	12	—	3	—	—	2	8	—	3	13	3	6	20	8	8	8	4	3
Forestry	4	3	1	0	12	3	0	5	2	2	5	1	1	3	2	5	7	3	3	5	3	1
Agriculture	7	3	5	1	12	4	5	1	1	1	3	4	4	13	3	9	14	7	9	10	6	2
Public Landowner	0	3	1	1	4	1	3	2	2	0	2	1	2	6	1	3	2	0	1	1	—	1
Highway Safety	0	5	4	1	5	1	1	1	0	0	3	0	0	7	1	8	6	2	5	1	2	3
Rural Non-agricultural Landowner	9	6	3	4	4	10	1	6	3	3	7	6	4	10	2	11	17	4	6	6	1	2
Motorist	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	2	—
Municipalities/ Planning Boards	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
Tourism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Total Individual Nominations[a]	39	40	36	30	63	22	16	26	8	11	42	17	19	61	30	44	84	36	40	42	27	27

[a] Total number of people that were in the nomination pool will not sum to total in each stakeholder category as individuals could be nominated for 2 stakeholder groups.

A "—" indicates the stakeholder group participation was not solicited.

Table 3. Stakeholder groups and their respective representation on Citizen Advisory Committees by Wildlife Management Unit (WMU) in Pennsylvania, 2006-2011.

Stakeholder Group	Wildlife Management Unit																				
	1A	1B	2A	2B	2C	2D	2E	2F	2G	3A	3B	3C	3D	4A	4B	4C	4D	4E	5A	5B	5C	5D
Homeowners	✓	✓	0	✓	—	0	✓	✓	0	0	—	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓
Resident Sportsman	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-resident Sportsmen	—	—	—	—	—	0	—	✓	✓	✓	✓	0	—	✓	✓	—	✓	—	—	—	—	—
Conservationist	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Business	✓	✓	✓	✓	✓	—	✓	—	—	✓	✓	—	✓	✓	✓	✓	✓	✓	✓	0	✓	✓
Forestry	✓	✓	✓	0	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Agriculture	✓	✓	0	0	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓
Public Landowner	0	✓	✓	0	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	0	0	✓	—	0
Highway Safety	0	✓	✓	✓	✓	✓	✓	✓	0	0	0	0	0	0	✓	✓	✓	0	0	0	✓	✓
Rural Non-agricultural Landowner	✓	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motorist	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	—	—	—	—	✓	—
Municipalities/ Planning Boards	—	—	—	—	—	—	—	—	—	—	—	—	—	—	✓	—	—	—	—	—	—	—
Tourism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	✓	—	—	—	—	—
Total Individuals on CAC	15	14	10	8	14	10	11	12	8	9	9	8	9	16	9	11	24	11	9	14	15	14

A "✓" indicates the stakeholder group was represented. A "0" indicates the stakeholder group was not represented. A "—" indicates the stakeholder group participation was not solicited.

Table 4. Wildlife Management Unite (WMU), year Citizen Advisory Committee (CAC) was completed, CAC recommendation, and corresponding recommendation of the Deer & Elk Section.

WMU	CAC Year	CAC Deer Population Recommendation	CAC Percent (%) Change in Deer Population	Deer & Elk Section Deer Population Recommendation[a]
1A	2009	Increase	30-40	Stabilize
1B	2007	Increase[b]	15	Stabilize
2A	2008	Stabilize	N/A	Stabilize
2B	2010	Stabilize/Decrease	-10-0	Decrease
2C	2007	Increase	25-50	Stabilize
2D	2011	Stabilize/Decrease	-10-0	Decrease
2E	2009	Increase[b]	15-25	Stabilize
2F	2011	Increase[c]	15	Stabilize
2G	2011	No Consensus	—	Stabilize
3A	2009	Increase[b]	5-10	Stabilize
3B	2007	Stabilize	N/A	Stabilize
3C	2011	Stabilize	N/A	Stabilize
3D	2010	Increase[b]	10	Stabilize
4A	2009	Stabilize/Increase[b]	15	Stabilize
4B	2006	Increase	10-20	Increase
4C	2008	Increase	20	Stabilize
4D	2008	Increase	15	Stabilize
4E	2008	Increase	40	Increase
5A	2008	Increase	12	Increase
5B	2009	No Consensus	—	Stabilize
5C	2007	Decrease	-40	Decrease
5D	2010	Decrease	—-	Decrease

[a] Deer & Elk Section recommendations are based on measures of deer health, forest habitat health, and input from each CAC. In some cases, there will not be agreement between the Deer & Elk Section recommendation and the CAC recommendation because of low deer health or forest habitat health measures.

[b] Recommendations for an increase from these CACs were agreed to only if supported by forest regeneration.

[c] Recommendation for an increase from this CAC were agreed to only if supported by forest regeneration and a change in regulation regarding the Deer Management Assistance Program.