

**EVALUATION OF A CITIZEN TASK FORCE APPROACH  
TO RESOLVE SUBURBAN DEER MANAGEMENT ISSUES**

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- JOB OBJECTIVES:
- (1) Conduct formative evaluations of communication strategies that provide an opportunity for immediate feedback to and response by managers.
  - (2) Compare the strengths and weaknesses of various citizen participation strategies under different conditions, such as levels of conflict, scope of decision, species of interest, and human communities affected.
  - (3) Identify factors contributing to the success of the above citizen participation strategies.
  - (4) Evaluate BOW attempts to expand and improve incorporation of citizen-generated ideas within management decision-making.

JOB DURATION: 1 April 1992 - 15 March 1995

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## EXECUTIVE SUMMARY

Problems associated with managing deer in suburban environments are of increasing concern to wildlife professionals and the public. In deer management unit (DMU) 96, which includes the greater Rochester metropolitan area, the New York State Department of Environmental Conservation (DEC), Bureau of Wildlife took the initiative to help resolve the deer management problem by convening a group of citizens to discuss deer population issues.

DEC worked together with Cornell Cooperative Extension (CCE) to modify a Citizen Task Force (CTF) model used in rural DMUs in the southern tier of New York State. Expanding on the successful attributes of rural CTFs in reaching agreements, DEC developed a public communications plan for DMU 96. The cornerstone of the strategy was the CTF approach that involved community stakeholders in developing solutions to address concerns about the deer population. CTFs implemented in rural DMUs involved a variety of people in recommending to DEC a deer population objective that DEC administered through hunting management practices. In DMU 96, however, CTF members recommended not only deer population objectives, but also deer management techniques to achieve the objectives. Human Dimensions Research Unit (HDRU) evaluators were involved during development, implementation, and adjustment of the DMU 96 CTF. The objectives of the evaluation were to: (1) describe the CTF approach used for suburban deer management; (2) determine the suitability of the CTF's operation (i.e., presentations, sequence of events) to CTF members; (3) assess the extent to which CTF members perceived they participated in making the CTF recommendations; (4) assess the degree of change, if any, in members' knowledge and impressions (perceived credibility) of deer management in the DMU, and of DEC; (5) determine if members believed the CTF approach was a worthwhile and effective way for stakeholders to become involved in deer

management decisions; and (6) compare the application of CTFs in suburban and rural environments.

## METHODS

We conducted a comprehensive evaluation using both formative and summative elements to assess the utility of the CTF approach in a suburban environment. We implemented both telephone interviews and mail questionnaires to assess the opinions of the eleven CTF members. Each data collection technique was used for a different evaluation purpose. Information from telephone interviews was relayed to DEC staff and the CCE facilitator to assist with planning subsequent meetings while the CTF was in progress, i.e. formative evaluation. Results from mail questionnaires that are reported in this document serve as a summative evaluation for comparison with rural CTFs. The series of three mail questionnaires and three telephone interviews were conducted before, during, and after the nine-month operation of the CTF.

## RESULTS

- CTF members described themselves as being affiliated with various interests and organizations within DMU 96, e.g., sportsman's club, homeowner's association, nature center, animal welfare group. Three women and eight men volunteered to participate. Members participated in a variety of wildlife-related activities, the most popular of which was observing wildlife at their residence (90%) for an average 249 days per year. Four of ten respondents hunted game 27 days on average in the past year. These four (40%) also hunted deer in DMUs other than DMU 96. Another respondent had hunted deer in the past, but was not currently a hunter. None of the CTF members hunted deer in DMU 96 during the previous season. Sixty percent of the respondents indicated family members hunted deer.
- The CTF process played an educational role for CTF members in learning about deer biology, management, and policy-making. After setting a deer population objective, all respondents agreed or strongly agreed that participating on the CTF increased their knowledge about deer management, and all but one respondent (88%) agreed or strongly agreed that taking part in the CTF increased his or her understanding of other people's views about deer.

- As members participated in more CTF meetings, members became less critical and more supportive of DEC's image in terms of management, communication, and personnel.
- CTF members were asked which technique they preferred for collecting sociological information for deer population decisions in DMU 96. Midway through the CTF meetings, half (50%) preferred the CTF method. One-fourth (25%) preferred that many people be surveyed. One member preferred a public meeting (12%), and another that DEC biologists decide independently without any input from the public (12%). None preferred that wildlife biologists make the decision based on informal contacts with people in the DMU.
- The majority (> 75%) of respondents rated CTFs as a good, very good, or excellent way to involve a variety of people in deer management decision making. A few members rated CTFs as fair or poor after they had recommended a deer management technique. It appears more members were supportive of CTFs as a way to recommend a deer population objective compared to recommending a management technique.
- Perceptions of CTF members imply not all members benefitted equally from participating on the CTF. About two-thirds of the respondents (63%) indicated everyone gained something from the recommendations, but that some people had gained more than others. Almost all (88%) indicated some members compromised more than others. Many agreed that everyone had to give up something (75%) for the CTF approach to function.
- Respondents were more favorable toward CCE's performance than that of their own. Midway through the process, all believed that CCE provided capable leadership at the meetings. Several respondents were more positive about other members' performance than their own. Several agreed or were undecided about the need to be more involved in CTF discussions (50%). Several indicated the need to participate more effectively at the meetings (37%).
- Respondents perceived that the CTF resulted in both positive and negative outcomes. Most agreed that the CTF achieved consensus at the expense of alienating some interest groups, but that the CTF caused state and local government officials to be more attentive to people's opinions about deer.

#### DISCUSSION

Based on the evaluation of the DMU 96 CTF in a suburban compared to rural environment, we suggest the following:

1. Any and all stakeholders in the community should be reflected by a member serving on the CTF. Overlooking any stakeholder group can reduce

the potential for creating a plan that will be accepted by government officials and the community at large.

2. Compared to rural CTFs, more stringent criteria are needed for identifying and selecting stakeholders to participate on CTFs in suburban locations. Examples of mechanisms to identify stakeholders that may be overlooked are obtaining nominations through contacting key community leaders, holding public meetings, designing advertisements in newspapers, sending direct mailings, or holding an initial CTF meeting for member's input. A facilitator could convene CTF members initially to discuss the CTF approach and review the membership to decide if others should be invited to reflect accurately the interests present in the community.
3. An effective way to involve government officials was to identify them as technical advisors and keep them apprised of the progress of the CTF. In DMU 96, limiting the CTF to citizens only (excluding government officials) was effective in minimizing the political nature of the deer population issue initially. Involvement of nongovernmental agencies, such as The Humane Society and the Audubon Society, needs further consideration.
4. More members of suburban compared to rural CTFs indicated that they desired implementing a scientifically-conducted survey approach to obtain information about opinions of people in the community. Organizers of future suburban CTFs may want to consider building a research plan into the CTF model that involves members, technical advisors, and/or human dimensions researchers in planning and implementing a community survey.

5. Members' perceptions of the agency's and facilitator's responsiveness to the needs of CTF members might be improved if, periodically, those who use members' feedback indicate how input from members changed the operation of the meetings.
6. Consensus for DMU 96 CTF was reached when all but one member agreed with the recommendations. Defining consensus as all members agreeing to a recommendation on the CTF, however, may have forced members to work harder to create mutual gains among participants. If unanimous consensus can not be reached, the final report could identify explicitly which recommendations achieved unanimous consent or not, and reasons why.
7. Once the CTF recommendations were communicated to government officials and the community, additional work was needed to insure that the CTF recommendations were used by policymakers. The state wildlife management agency continued meeting with policymakers, interested citizens, and the media about the CTF's recommendations and the condition of the deer herd. Organizers and some members of CTFs may need to continue involvement in the implementation phase of the recommendations after the CTF has terminated.
8. A way to continue involvement of CTF members in deer management is using volunteers to monitor wildlife populations. In DMU 96, trained volunteers, at least one of whom was a CTF member, assessed the health of car-killed deer. Base-line data collected by volunteers were provided to biologists, and served to increase volunteers' understanding and knowledge about wildlife. The agency's linking with volunteers also created a network for agencies to interact with influential members of

organizations and the community.

9. External communications with the public and policymakers was an important part of the CTF members' ability to build a practical and feasible recommendation. The challenge was to magnify the information exchange and consensus-building that occurred on the CTF to the community at large. To address the need for building community support, DEC developed a communication strategy in which the CTF approach was the cornerstone. Developing a communication strategy is especially important in suburban areas where citizens may have little knowledge of DEC, other than as a regulatory agency.

The utility of CTFs in suburban environments needs further consideration and research. Although community action did result from recommendations of the DMU 96 CTF, the repetition of this approach in other suburban environments could yield vastly different outcomes. Whether the CTF approach is appropriate for a particular suburban community is for the wildlife management agency and the community to decide. Deer managers and cooperators need to assess the costs and potential benefits of implementing a CTF or other public involvement approach. If they are willing to commit the time and energy required, the rewards could be substantial in facilitating the coexistence of deer and people in a suburban environment.

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## INTRODUCTION

Problems associated with managing deer in suburban<sup>1</sup> environments are of increasing concern to wildlife professionals and the public. Damage by deer to gardens and ornamental plantings, deer-car accidents, and other risks to human health and safety are reported frequently in the media across the United States (Dvorchak 1991; Hall 1991; Anonymous 1992a and 1992c; Jones 1992; Samuel 1992; Specter 1992; Alatzas 1993b; Johnson 1993; McCarthy 1993; Reeves 1993). Recently wildlife professionals who grapple with suburban deer management issues exchanged experiences and research results at a symposium titled "Urban Deer--A Manageable Resource?" featured at the 1993 Midwest Fish and Wildlife Conference (December 12-14, St. Louis).

A current debate among wildlife professionals is whether they should manage deer living in suburban environments if the community is unwilling to support recreational hunting as a solution to deer population problems. One concern is that by supporting nontraditional management methods, wildlife professionals will be contributing to decreased opportunities for and the possible demise of recreational hunting. A related concern is the distribution of costs for implementing nontraditional techniques. Many state wildlife management agencies fund deer management programs primarily through license sales from deer hunters. This presents the wildlife management agency with the dilemma of using funds generated by hunting to pay for nontraditional techniques, unless state funds provide adequate support from taxpayers to the wildlife management agency.

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<sup>1</sup>In this report, we will use the term "suburban" to describe those environments which support a high density of people and deer due in part to the interspersed of residences, parks, open spaces and other land uses that serve as deer habitat.

Another concern pertaining to suburban deer management is the private use of deer, a public resource. For example, removal of nuisance deer to venison farms would provide a source of profit for venison farmers in the private sector, and deer would be removed at minimal cost to taxpayers. However, the long-term legal, social, and economic ramifications of allowing private ownership of deer are of concern to some wildlife professionals. In New York, wildlife professionals interpret the private use of deer as contrary to state law and the mission of the Bureau of Wildlife, which states:

. . . to provide the people of New York the opportunity to enjoy all the benefits of the wildlife of the state, now and in the future. This shall be accomplished through scientifically sound management of wildlife species in a manner that is efficient, clearly described, consistent with the law, and in harmony with public need. (Bureau of Wildlife 1993)

Others contend that the Bureau's mission is achieved in instances when removing deer is beneficial to the public, regardless of whether deer are used for private or public gain.

An impediment to making decisions about suburban deer management is that the efficacy of nontraditional techniques for managing deer populations is often unclear or unknown (Curtis and Richmond 1992). Deer managers, sportsmen, animal rightists, and the general public have different knowledge and beliefs about deer management techniques (Decker and Brown 1987, Povilitis 1989, Hanback and Blumig 1993, Decker et al. 1993). For example, researchers report various successes associated with contracepting captive deer, although the effectiveness and application to wild, free-ranging deer is uncertain (Hanback and Blumig 1993). Others perceive immunocontraception as an available, effective, feasible, and humane option for managing deer populations in their community (Baker 1992, Hanback and Blumig 1993).

## A Case Study of Suburban Deer Management

Implementing nontraditional methods, the distribution of costs, and the private use of a public resource are a few of the challenges facing suburban communities with deer-related problems. A case in point is suburban deer management in deer management unit (DMU) 96, which includes the greater Rochester metropolitan area in central-western New York. The New York State Department of Environmental Conservation (DEC), Bureau of Wildlife promotes hunting as the best deer management technique available for solving suburban deer management problems. Hunting is permitted in most of DMU 96 except in the town of Irondequoit, where a myriad of laws restrict its use. A wildlife biologist explained:

...while hunting is allowed by State law, the Town (which does not have the legal...ability to prohibit hunting) has received State legislative authority to prohibit discharge of certain implements. Thus, the Town of Irondequoit prohibits by Town Ordinance the discharge of firearms and, in 1978, prohibited the discharge of the bow and arrow. ...this has the overall effect of not allowing hunting, but it is through prohibition of use of the implements themselves, not the act of hunting. Saying otherwise is false and gives credence to the assumption that, for some reason, hunting is inappropriate here. That is not the case! (J. Hauber, DEC, pers. commun.)

Deer managers associate this restriction with the subsequent increase in the size of the deer population in Irondequoit that has since exceeded its biological carrying capacity and the wildlife acceptance capacity of many residents (Hauber 1993). The wildlife acceptance capacity for deer is the maximum deer population level that people will tolerate in consideration of the problems deer may cause (Decker 1991, Decker and Purdy 1988).

Given this situation, some residents of DMU 96 have expressed in public the need for the deer management agency to address suburban deer management

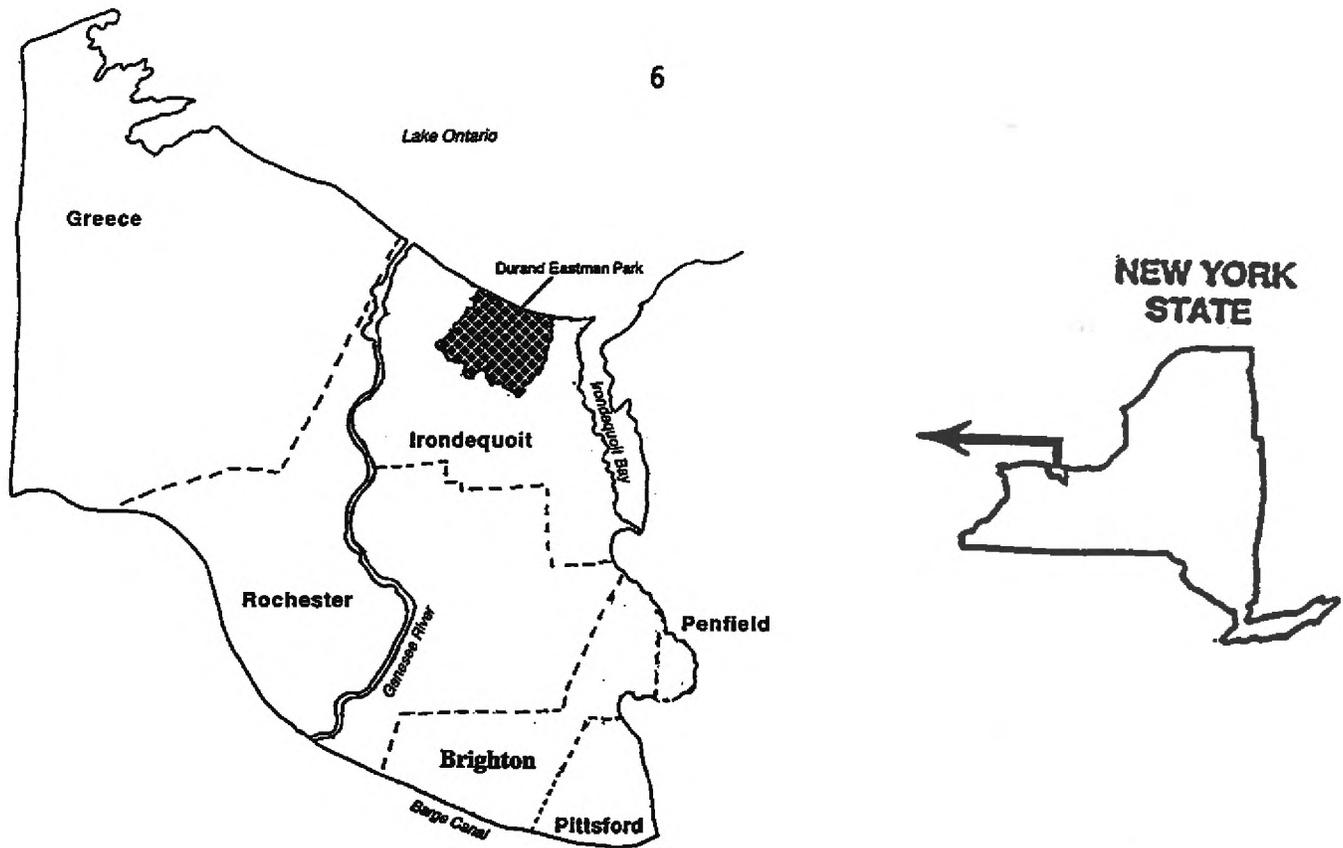


Fig. 1 Location of DMU 96 in New York State.

Table 1. Description of towns located within DMU 96.

Name of Town	Portion of town within DMU (estimate)	Description of DMU 96 from 1990 Data <sup>a</sup>			
		Human population per km <sup>2</sup>	Vehicle-killed deer report tags	Archery total deer take	Land area (km <sup>2</sup> )
Brighton	50%	0.86	34	30	40,061
Greece	50%	0.73	91	52	122,755
Irondequoit	100%	1.33	28	n.a. <sup>b</sup>	39,500
Pittsford	15%	0.41	11	60	60,098
Rochester City	100%	2.50	21	3	92,683

<sup>a</sup>Data about human population/km<sup>2</sup> derived from Bureau of the Census (1990), reported vehicle-killed deer and deer take from J. Hauber, DEC, pers. commun.

<sup>b</sup>Discharge of firearms or bow and arrow is prohibited in Irondequoit.

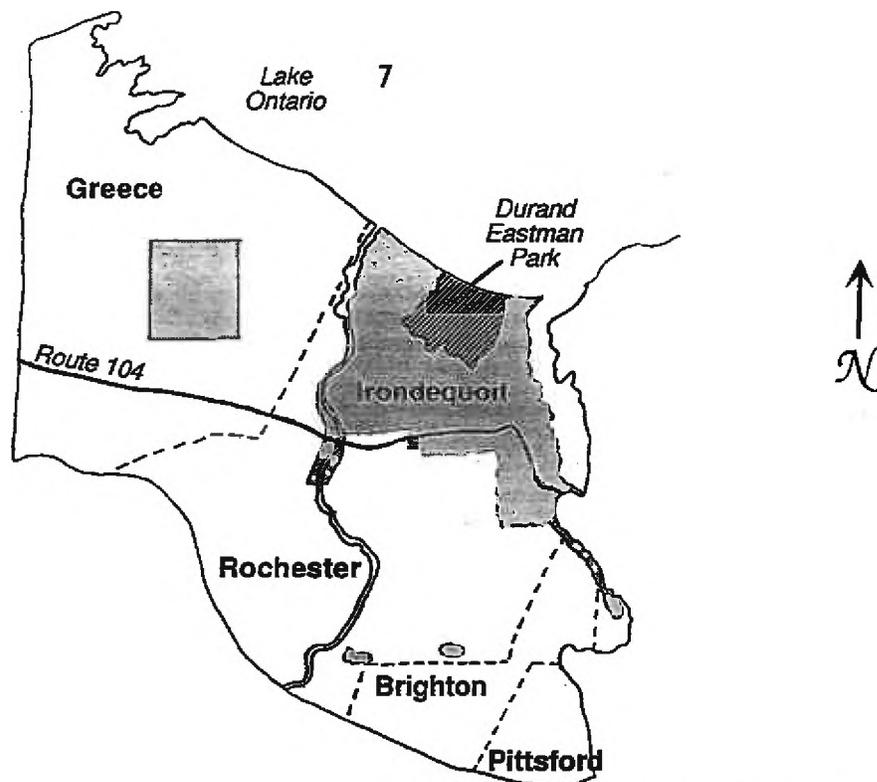


Fig. 2. Locations in DMU 96 where discharge of firearms or bow and arrow is prohibited.

be used for commercial profit. Grassroots organizations also proposed nonhunting solutions to the various problems caused by deer overpopulation, but the proposed solutions required legislative approval or were not economically feasible (Appendix A). DEC's rejection of these community efforts did little to enhance the credibility of the wildlife management agency.

Meanwhile, in rural DMUs throughout the region, DEC had implemented successfully several Citizen Task Forces (CTFs) (Nelson 1992, Stout et al. 1993). CTFs involved a variety of people in recommending to DEC a deer population objective for the DMU. DEC used these recommendations to manage the deer herd via hunting techniques in rural areas. Expanding on the successful attributes of rural CTFs in reaching agreements, DEC developed a public communications plan for a suburban environment (Stout and Knuth 1994).

The cornerstone was implementing a modified CTF approach that would involve the community in developing solutions to address concerns about the deer population.

#### Description of the Citizen Task Force Approach

In DMU 96, the DEC took the initiative to help resolve the deer management problem by convening a group of citizens in the DMU to discuss deer population issues. DEC worked together with Cornell Cooperative Extension (CCE) staff who facilitated the meetings and supported the policy education role. DEC deer managers and biologists attended meetings and provided their deer management expertise to the CTF. The interaction between DEC and CTF members was intended to strengthen the group's recommendation to the advantage of both the interests of the community and the deer population.

For the suburban DMU 96, DEC and CCE modified a CTF model used in rural DMUs in the southern tier of New York State (Curtis et al. 1993, Stout et al. 1993) (Fig. 3). The rural CTF model brings a diversity of stakeholders present in the DMU face-to-face to negotiate a deer population objective for the DMU. At the first meeting, DEC informs CTF members about deer management and the status of the deer herd in the DMU. At the second and third meetings, citizens discuss preferences and opinions of people in the community about the deer herd. Then members attempt to reach a consensus in which every member agrees to a deer population level or range. DEC provides CTF members with feedback to indicate how the proposed deer population level will affect the deer herd and the agency's ability to achieve the objective through issuing deer management permits to hunters. If CTF members recommend a deer population level that managers believe (1) cannot be achieved realistically,

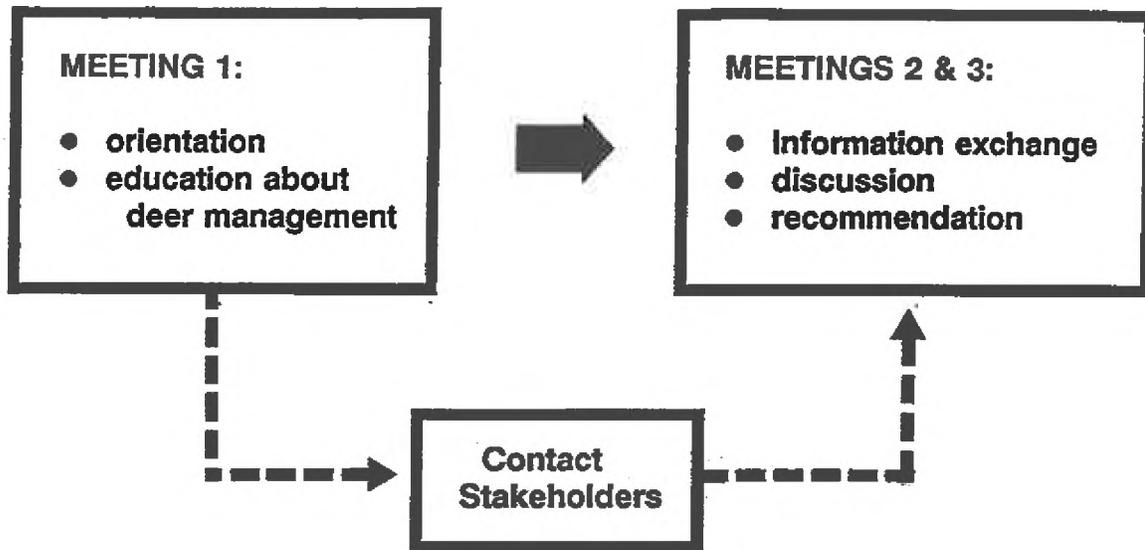


Fig. 3. Sequence of steps for the CTF approach in rural DMUs in New York.

(2) will have a negative effect on the deer herd, or (3) jeopardizes the potential benefits that the deer herd could provide to people, then deer managers and biologists will use the nearest achievable deer population level as the CTF recommendations. Deer managers and biologists explain to members how CTF recommendations will be considered in deer management decisions.

The CTF approach corresponded to an issue evolution--educational intervention model in which participants identify concerns and weigh alternatives and consequences regarding policy decisions (Hahn 1988, Stout et al. 1993). CTFs are a forum for policy education in which participants learn about the policy framework within which deer management decisions are made.

Participants learn how their input affects decisions concerning the size of the deer herd.

The suburban DMU 96 CTF differed from its rural counterpart in several ways, the most significant of which was that the DMU 96 CTF was charged with recommending deer management techniques. Members were asked to recommend not only the level of the deer population that they preferred, but also the means to achieve the objective (Curtis et al. 1993). The established deer management technique in rural and some suburban DMUs in the southern tier of New York State was to issue deer management permits to firearm and bow hunters, but local laws in Irondequoit prevented hunting (Fig. 2). Clearly, alternatives to recreational hunting would have to be agreed upon if deer population reduction was preferred during the first portion of the CTF process. Multiple levels of legislative action from the town, county, and state governments would be necessary before practically any management technique could be implemented.

#### **Chronology of the DMU 96 CTF**

The main charge to the citizens serving on the DMU 96 CTF was to recommend deer population objectives and management techniques for the DMU. Several organizations participated in planning, implementing, and evaluating the DMU 96 CTF: DEC staff associated with deer management in the DMU, a CCE facilitator, and evaluators from the Human Dimensions Research Unit (HDRU) at Cornell University. To reduce the potential of politicizing the approach, DEC and CCE limited the CTF to citizen members only--state, county, and town government officials and university researchers could only serve as technical advisors to the CTF.



The CTF approach modified for the suburban setting was an extended version of its rural counterpart (Fig. 4). In an informal setting, participants discussed the benefits and consequences of changes in the deer population level and alternative management techniques. If consensus was reached among members, members and advisors then could discuss an action plan to communicate the recommendations to the public.

Perhaps the most critical aspect of the CTF approach was the selection of CTF members. DEC and CCE gathered input from several community sources concerning which stakeholders were present in the DMU. Stakeholders are people who hold a vested interest in the deer population. Initially HDRU and CCE staff telephoned twelve stakeholders inviting them to participate, of which one, an owner of a deer-related business, later chose not to participate. Those agreeing to participate were mailed a letter of confirmation and educational materials provided by DEC about deer management. This included general information about how deer management is conducted in the state, plus data relevant to the DMU 96 about deer harvested via bowhunting, deer-carcass permits issued (for possession of car-killed deer), and deer damage complaints.

CTF members convened for seven CTF meetings, a press conference and a practice session for the press conference (Appendix B). At the first meeting, members were treated to an informal dinner reception. Guest speakers provided members with background about incidence of deer-car accidents (Sheriff's Department) and human health issues such as the prevalence of Lyme disease in the DMU vicinity (Health Department). DEC presented information about deer biology, social considerations, and administrative constraints, followed by group discussion. Members were given a handout they would use to record

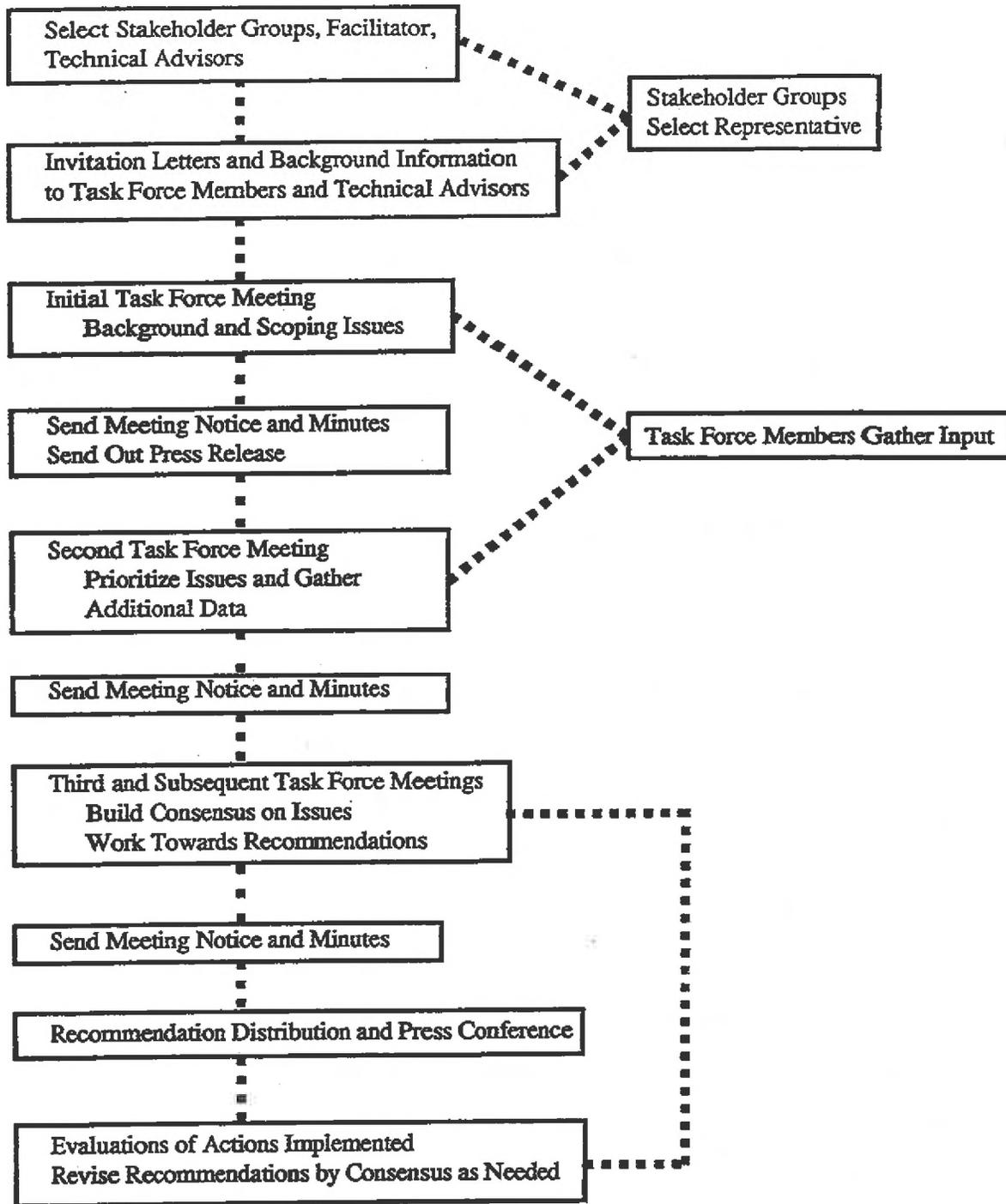


Fig. 4 Sequence of steps for the CTF approach in the suburban DMU in New York.

responses from people they would contact in the DMU community as to whether the number of deer should remain the same, increase, or decrease. Members discussed the purpose of the handout and agreed to use it as a guide when contacting people in the DMU.

Between the first and second meetings, CTF members contacted other stakeholders in the DMU and asked their preferences for the level of the deer population. If the preference was an increase or decrease, the stakeholder was asked by what percent. During the second meeting, CTF members reported their findings from discussions with people in the DMU. The facilitator then led the discussions toward reaching consensus. Consensus was defined as agreement by at least all but one of the CTF members present.

By the end of the third meeting, a consensus had been reached for the deer population objectives of the DMU. CTF members recommended dividing the DMU into two parts, the north and south (Fig. 5), because CTF members that a long-term goal for the size of the deer herd be 20 deer/mile<sup>2</sup> for DMU 96. In the southern portion, CTF members recommended none or slight reductions in the reductions in the deer population (0-5%) for a herd size of 20 deer/mile<sup>2</sup>. In the northern portion, CTF members proposed a conservative number of deer be removed the first year that equalled the number of deer-car accidents occurring that year. They recommended deer removal should be increased in subsequent years until an estimated 20 deer/mile<sup>2</sup> inhabited the town.

Information about deer management techniques was presented near the conclusion of the third meeting. A video about deer management at Rock Cut State Park in Illinois was shown as an example of a suburban deer management plan (Witham 1991). Members read articles about deer management options (e.g., Ellingwood and Caturano 1988, Brush and Ehrenfeld 1991) between the third and fourth meetings.

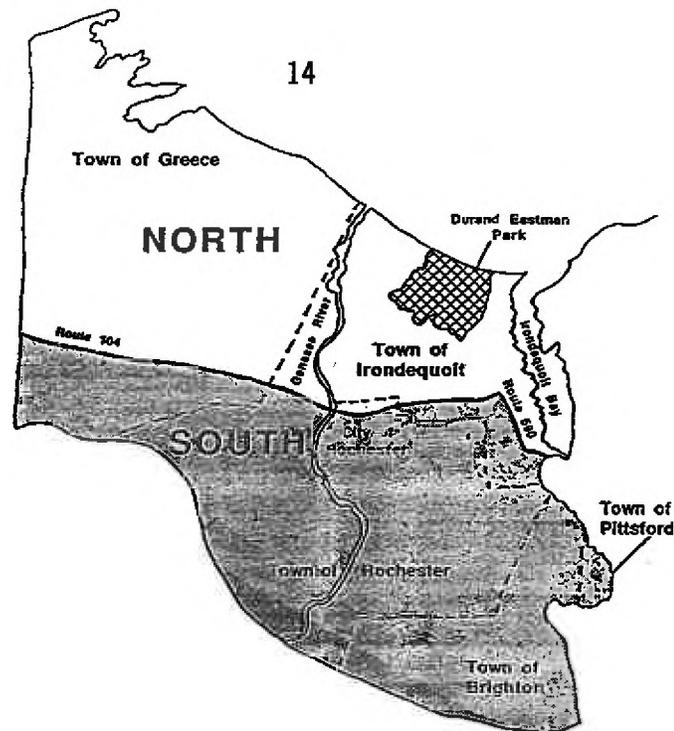


Fig. 5. Division of DMU 96 based on CTF members' recommendations for deer population objectives.

At the fourth meeting, CTF members discussed the status and technical feasibility of various deer management techniques with a deer research scientist, Dr. Milo Richmond, from Cornell University. At the fifth meeting, state, city, county and town officials were invited to speak frankly and openly about the political and financial feasibility and acceptability of various options. CTF members began discussing and coalescing their ideas about the techniques they would recommend. At the sixth meeting, a veterinarian from Eastern Montana College, Dr. Jay Kirkpatrick, updated members about the latest immunocontraception research, and an additional legislator who was unable to attend the previous meeting expressed his opinions and concerns. CTF members also discussed a draft of the CTF report with recommendations.

The CTF's report recommended the continued use of bow hunting to regulate deer populations in three-fourths of the DMU (Fig. 6). In the town of Irondequoit where laws had prevented hunting for 15 years, the CTF

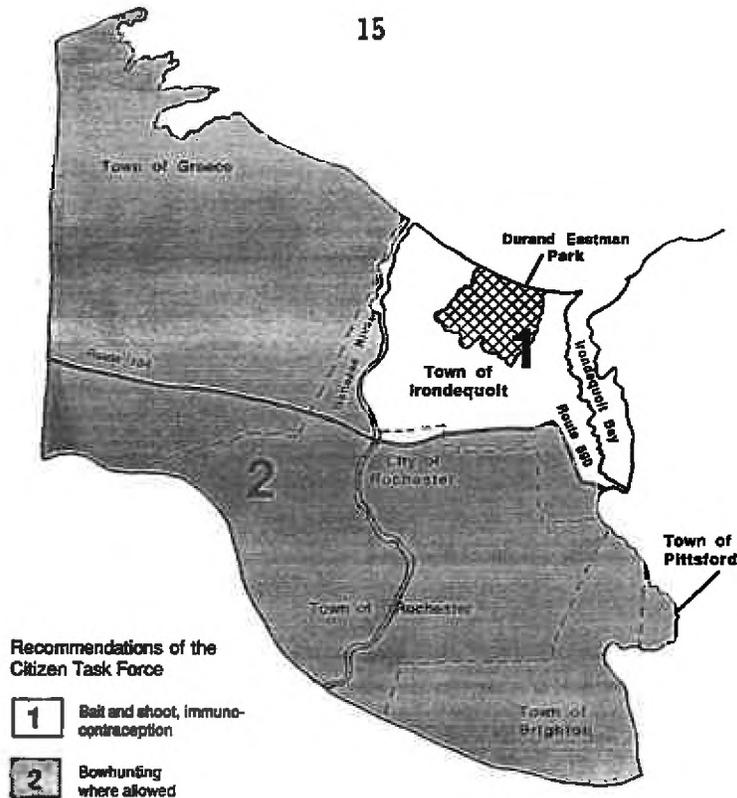


Fig. 6. Division of DMU 96 based on CTF members' recommendations for deer management techniques.

recommended a controversial plan to cull deer over bait as a short-term solution, followed by experimental immunocontraception as a long-term solution.

After a one-month break, the CTF reconvened to finalize its recommendations and to develop a strategy for distributing the reports to key government officials and the media. One member opposed recommendations to cull deer in Irondequoit and requested entering a minority opinion into the report, which other members declined. DEC proposed a communication strategy which included issuing press releases, holding a press conference with CTF members, and setting up workshops with the community and CTF members. The evening before the press conference, CTF members attended a picnic to discuss

the agenda and practice strategies for working with the media. CTF members nominated a spokesperson to announce the CTF's recommendations.

The CTF report with recommendations was distributed at the press conference. Seven CTF members attended the press conference and conducted interviews with reporters. Protesters opposing the recommendations for Irondequoit also attended and expressed their opinions to reporters.

The CTF recommendations provided a direction for deer management in DMU 96. Local government officials subsequently used the recommendations as a framework to develop details and an implementation plan for the short-term solution of culling deer over bait at night in Durand Eastman Park. To date, police officers have carried out the plan in March-April, 1993 and January-February, 1994. However, the long-term solution of conducting research to investigate the effectiveness of an experimental immunocontraception technique has not occurred to date. Cornell and SUNY-Syracuse Universities have proposed research plans to government officials, but no action has been taken because of a lack of funding support from either the town and county governments, or nongovernment organizations.

### **Evaluation Objectives**

HDRU evaluators were involved in the early stages of CTF development as pivotal decisions were made, such as the selection of stakeholders to participate on the CTF. During implementation, we collected valuative information from CTF members, and critically observed the CTF meetings. We also provided organizers with immediate feedback for adjusting and strengthening the CTF process during its implementation.

The objectives of the evaluation were to: (1) describe the CTF approach used for suburban deer management; (2) determine the suitability of the CTF organization (i.e., presentations, sequence of events) to CTF members; (3) assess the extent to which CTF members had the opportunity to participate in making the CTF recommendations; (4) assess the degree of change, if any, in members' knowledge and impressions (perceived credibility) of deer management in the DMU, and of DEC; (5) determine if members believed the CTF approach was a worthwhile and effective way for stakeholders to become involved in deer management decisions; and (6) compare the application of CTFs in suburban and rural environments.

#### METHODS

We conducted a comprehensive evaluation using both formative and summative elements (Stout et al. 1992) to assess the utility of the CTF approach in a suburban location. We implemented both telephone interviews and mail questionnaires to assess the opinions of the eleven CTF members. Each data collection technique was used for a different evaluation purpose. Information from telephone interviews was relayed to DEC staff and the CCE facilitator to assist with planning subsequent meetings while the CTF was in progress, i.e. formative evaluation. Results from mail questionnaires that are reported in this document serve as a summative evaluation for comparison with rural CTFs (Stout et al. 1993).

The series of three mail questionnaires and three telephone interviews were conducted before, during, and after the nine-month operation of the CTF. The first two questionnaires and telephone interviews were similar to those used to evaluate the rural CTF approach to facilitate comparisons with the suburban CTF. The timing of the data collection methods was crucial for

achieving the purpose and objectives of the study. The methods were conducted at key junctures in the CTF process to maximize the utility of immediate feedback to the organizers, and to facilitate comparing the responses with results from rural CTFs.

Initially CTF members received a questionnaire (Appendix C) in advance of the first meeting. The first questionnaire was similar to those administered previously in rural CTFs (Stout et al. 1993). The objectives of the first questionnaire were to: (1) assess information needs prior to the first meeting; (2) assess opinions about materials received regarding deer and deer management; (3) assess perceptions about the purpose of the meeting and the role of members; (4) identify specific concerns about deer; (5) assess the image of the deer management agency; (6) assess the degree of participation in wildlife-related activities; (7) determine membership in organizations; (8) determine past actions regarding deer management, and (9) determine rural, urban, or suburban location of current and childhood residence.

After the third CTF meeting, a second questionnaire (Appendix D) was mailed that focused on the process used to recommend a deer population objective. The objectives of the second questionnaire were to assess: (1) the importance of specific types of information in making deer management decisions; (2) information and perceptions about the task of collecting opinions from people in the community; (3) important considerations when making decisions; (4) opinions about deer in general; (5) changes in personal perceptions of the CTF and DEC; (6) image of the deer management agency; (7) preference for how DEC should collect information when deer population decisions are necessary; (8) opinions about the CTF approach, being a CTF

member, and CTF organizers; and (9) satisfaction or dissatisfaction with the CTF approach.

The last questionnaire (Appendix E) was mailed to the eight members who participated in the last four meetings four months after the CTF had concluded. The objectives were to assess members' opinions about: (1) the information presented at the CTF meetings; (2) how the process affected their views of deer and deer management based on Hahn's model of issue evolution (Hahn 1988); (3) preferences for alternative mechanisms for conducting the CTF; (4) fairness and efficiency of the CTF approach; (5) achievement of outcomes from implementing the CTF approach; (6) suggested improvements to and involvement of others in the CTF approach; and (7) subsequent communications with the public and media.

Telephone interviews provided CTF organizers with immediate feedback about the opinions of CTF members as the approach was underway. We interviewed those members who had attended the first meeting. The purpose of the first interview was to assess their impressions of the meeting, what members learned, and suggestions for improving the meeting. The second interview after the second meeting focused on communications about alternative deer population levels; specifically members' perceptions of over- or underrepresentation, and other members' consideration of the interests reflected by the respondent. After setting a deer population objective and discussing deer management alternatives, members were interviewed a third time to assess their impressions of the process for recommending deer management options, the fairness and balance of information presented to CTF members, suggestions for improving presentations and facilitating discussions among CTF members, and their need for additional information.

We analyzed data using both qualitative and quantitative methods. CTF members responded to a mix of open- and closed-ended questions for the telephone interviews and questionnaires. Open-ended questions were analyzed using qualitative methods of categorizing and detecting patterns of responses. We used frequencies and mean response to report quantitative assessments from CTF members (SPSS, Inc. 1990). No measures for detecting significant differences were undertaken, because observed differences in response were real (i.e., respondents represented the whole population, not a sample, of people who participated in a suburban CTF).

## RESULTS

We mailed questionnaires and interviewed those CTF members who attended CTF meetings. Ten of eleven members who attended the first meeting responded to the first questionnaire (91%). After the third meeting in which deer population objectives were set, farmers did not attend many of the subsequent CTF meetings, indicating they were busy with field activities during spring and summer. Nine of eleven CTF members responded to the second questionnaire (82%). Eight of these regularly attended subsequent meetings, and were mailed and responded to the last questionnaire (100%). Therefore, results in this study reflect those who were more committed to the CTF approach.

We interviewed the eleven CTF members by telephone after the first meeting (100%), nine of ten who attended the second meeting (90%), and seven of eight who attended the fourth meeting (86%). We made multiple attempts to call all members who attended the meeting prior to the interview, but sometimes were unable to reach a member in time to get timely feedback to the CTF organizers.

### Characteristics of CTF Members

CTF members were affiliated with interests and organizations within DMU 96 (Table 2). Three women and eight men volunteered to participate. Members responding to the first questionnaire (n=10) participated in a variety of wildlife-related activities, the most popular of which was observing wildlife at their residence (90%) for an average 249 days per year. Other activities included reading (90%,  $\bar{x}$  = 46 days) and watching television programs or movies (90%,  $\bar{x}$  = 42 days) about wildlife. Some respondents provided food sources for viewing birds (60%,  $\bar{x}$  = 137 days) and deer (20%,  $\bar{x}$  = 275 days). Seven respondents (70%,  $\bar{x}$  = 12 days) made trips to observe wildlife. Several enjoyed photographing wildlife as a hobby (30%,  $\bar{x}$  = 6 days).

Four of ten respondents hunted game 27 days on average in the past year. These four (40%) also hunted deer in DMUs other than DMU 96. Another respondent had hunted deer in the past, but was not currently a hunter. None of the CTF members hunted deer in DMU 96 during the previous season. Sixty percent of the respondents indicated family members hunted deer.

The majority of respondents (70%) were "deer activists" in that they had taken actions to make their opinions known about deer and deer management. Of those who had taken actions, most contacted DEC wildlife biologists (60%) or joined an organization to increase their political clout (50%). A few voted for or against a political candidate because of his or her position on deer management issues (30%). One of the most active members (10%) wrote letters to the editor, donated money to lobbying efforts, signed a petition, and was active in organizing a citizen action committee to address deer-related issues (10%).

Table 2. CTF members' affiliation, and their preference for and concerns about deer and management techniques prior to participation.

Stakeholder interest	Organizational affiliation	Affiliates' deer population preference	Primary concerns
Environmental education	Helmer Nature Center	50-75% decrease (some stable)	Habitat destruction, personal injury, appreciation of deer
Bowhunters	Archery instructor	5-80% decrease	Property and habitat destruction
Homeowner	Brighton/Meadowbrook Homeowners Assn.	stable	Stability of nature, health of deer
Grain farmers	Monroe Co. Farm Bureau	10-50% decrease	Crop damage
Fruit growers	Western New York Apple and Cherry Growers Assn.	30-50% decrease	Crop damage, financial loss
Outdoor and wildlife enthusiasts	Monroe Co. Alliance for Wildlife Protection	stable	Stability of nature, public education to reduce deer damage
Homeowners with damage	Irondequoit Deer Action Committee	50-75% decrease	Property damage, deer-car accidents
Forest and homeowners	New York State Forest Owners Assn.	stable	No concerns
Hunters and sportsmen	Sportsmen organization	20-50% decrease	Health of deer, deer-car accidents
Gardeners in Irondequoit	Master Gardener	50-75% decrease	Deer-car accidents, ecosystem and plant damage

Respondents held a variety of stakeholder interests in deer. All respondents drove a car or truck (100%), indicating they held a stake in the risk of deer-related vehicle accidents in the DMU. Others owned ornamental shrubs around their homes (60%), and half (50%) raised fruits and/or vegetables for household consumption. Half (50%) indicated enjoying viewing deer near their residence. A couple of respondents owned rural land that was not a farm (20%).

Members were employed in corporate industries, sales and marketing, agriculture, and education. One member was retired. Some (40%) grew up in cities with > 100,000 people, others in smaller communities of < 25,000 people (50%). One (10%) grew up in a small city between 25,000 and 99,999 people. At the time of the study, respondents lived in surrounding suburbs (5,000 to 99,999 people) (40%) or in rural areas (50%), while one resided in the city of Rochester (> 100,000 people).

#### Feedback from CTF Members

HDRU collected input from CTF members as feedback for DEC staff and the CCE facilitator while the CTF was underway. DEC and CCE used the feedback to monitor the satisfactions and dissatisfactions of members, and discuss potential modifications. Findings from telephone interviews and meeting observations follow, with examples of how DEC and CCE used input from members to modify the CTF approach in progress.

After the first meeting, results from interviewing members (Appendix F) and comments from the first questionnaire indicated members were impressed with the preparation, organizational efforts, presentation of technical information, facilitation, and the monetary and time investment of DEC and CCE

in the CTF approach. However, despite these positive comments about DEC and CCE, members were also skeptical of DEC's motives, the capability of CTF members to agree and to solve the problem, and the effectiveness of consensus-building to resolve a highly-publicized, political, and emotional issue. As one member stated, "From what I learned at the first meeting, the potential for workable solutions does not appear too promising in DMU 96." Another member suspected DEC staff manipulated information to meet its own agenda, and stated, "no speakers presented the redeeming characteristics of deer, all the information was against deer--the only good thing about deer was killing and eating them." Another indicated the decision for deer management in DMU 96 had already been made, and that DEC had decided bowhunting was the only viable solution.

DEC and CCE responded by reinforcing the purpose of the CTF verbally and in writing. DEC and CCE were conscious of communications that might lead members toward being skeptical of the CTF approach, or might imply favoritism toward particular deer population levels or management techniques. At the first few CTF meetings, DEC commented on past successes with CTFs in other DMUs to create more optimism for the DMU 96 CTF. To provide a sense of direction and of progress achieved by the CTF, DEC and CCE distributed summaries of four meetings and tentative agendas of six meetings. Instead of DEC solely providing information about deer and deer management techniques, other deer management experts (Appendix G) were invited to give presentations, and the CCE facilitator and CTF members shared information and articles about topics of interest.

After the first few meetings, several members noted the absence of certain interests on the CTF, and the need for a wider range of opinions. One

commented that the CTF needed to reflect more than only "the negative impacts of deer on people." A few members stated the CTF lacked members who supported anti-management, anti-hunting, or anti-trap and transfer of deer, despite the participation of a wildlife protectionist on the CTF. One member indicated that the composition of the CTF was appropriate, and that adding another member supporting a "pro-deer" viewpoint (i.e., deer are not the problem, but rather people are the cause of deer-people conflicts) would not have changed appreciably the CTF.

After the second meeting, members expressed a mix of opinions about representation of interests (Appendix H). About one-third of the respondents indicated some interests were either over- or under-represented. A few noted that the concerns of Irondequoit residents were over-represented. Other members believed the CTF favored those wanting some action to reduce the size of the deer herd, whereas those preferring no action were under-represented. Members' perceptions differed as to the proportion of community residents who desired that no deer management action be taken.

As a result of these comments about representation of interests on the CTF, DEC and CCE considered but decided against inviting a member of "Save Our Deer," a grassroots organization which was formed simultaneous to the CTF's formation. The CTF organizers were concerned that permitting a new member to join the CTF would set a precedent for allowing others who had not previously participated to attend (e.g., other sportsmen's groups). Also, the new member would lack the learning opportunities, information exchange, and interactions that CTF members had already experienced in previous meetings. "Save Our Deer" members were encouraged to discuss their opinions with CCE, DEC, or a CTF member with similar interests (i.e., member of CTF affiliated with "Monroe

County Alliance for Wildlife Protection") who could then pass on their opinions to the CTF.

As the meetings progressed, CTF members requested clarification of different types of information (Appendix I). During the first and second meetings, members needed more explanation about the definition and process of reaching consensus. Once consensus-building was under way by the latter part of the second meeting, the need for clarity shifted to understanding the benefits and concerns that people had about deer and deer management. Questions explored the political process through which deer management decisions are made, and on the governmental bodies and their boundaries of authority in relation to particular deer management options. Members also questioned the extent of support that CTF recommendations would receive from the public, governmental bodies and DEC.

Throughout the process CTF members expressed frustration over the lack of data to indicate the number of deer in the DMU. DEC and CCE attempted to direct members toward basing preferences for the size of the deer population on one or more indicators, such as a reduction of property damage. DEC and CCE emphasized that knowing the exact population size was less important than knowing what level of damage was tolerable to the community. Nevertheless, this perceived need to count the number of deer resurfaced both during and after the CTF approach concluded.

One possible reason for members' preoccupation with the number of deer in the DMU and representation of a wider range of interests on the CTF was a deeper concern for a lack of public support of the CTF and its recommendations. During one CTF meeting, a government official suggested that counting the number of deer would help substantiate CTF recommendations. A

CTF member stated, "DEC and the task force may identify reasonable solutions and agree to a solution, but it may not sell to the public." Midway through the CTF meetings, another member perceived that "the task force needs a wider representation...to get the populous behind what the task force is doing." Several members were uncomfortable with the assignment of directly contacting stakeholders in the community for their opinions, and desired a more structured survey approach for gathering the data.

DEC addressed CCE members' concern for improving public support by presenting a communication strategy (Appendix J), the goal of which was:

to build support of the Task Force constituency and the community for the Task Force recommendations and future agreements for action developed by local government decision-makers.

CTF members reviewed DEC's communication strategy at the seventh meeting. DEC indicated they would meet with local government officials, issue a series of news releases about deer management and the CTF, meet upon invitation with members of community organizations, hold an informational workshop for CTF member organizations and other interested citizens, arrange a press conference to announce the CTF's recommendations and indicate DEC's support, and distribute the CTF recommendations to local government officials.

After members reached a consensus concerning the deer population size, several were more optimistic about the CTF approach, and expressed ownership in the process:

The consensus process worked pretty well with the mix of different interests. I think we are reaching a reasonable decision, not a lot of rhetoric.

At the next meeting, we need to continue discussing some interesting information....

But some members remained skeptical about the ability of the CTF approach to

build consensus toward implementation of a deer management technique. Reasons included the controversial nature of the issue and its complexity. One member stated,

The politics involved in this issue are complex, and the issue has been talked about for years. Is there anything of value that is going to result from this, especially in the Irondequoit situation?

For some members, the CTF served as a policy education tool that improved their understanding of DEC and their reasoning for agency actions regarding suburban deer management issues. Responses indicated personal interactions with DEC staff improved their public image:

The problem is DEC has its hands tied and cannot do much because of county ordinances, like Irondequoit doesn't allow archery hunting.

The DEC people are real nice. I now read the *Conservationist* magazine (a New York State DEC publication) from a different viewpoint.

Several members were very impressed with the skills of the CCE facilitator "to move the task force forward in reaching a consensus and bring about a decision from the group." One member speculated that DEC would improve its image by "changing the public's impression that DEC is distant."

Although CTF members became informed and familiar with DEC staff and the agency's role in deer management, members remained critical of other aspects of DEC. Some members commented,

We need up-to-date information that is presented in an unbiased way. Are we just here to rubber stamp and endorse DEC's decision?

DEC has not taken the lead for particular options. DEC will be faced with similar issues more and more in urban areas across the state in the future. DEC needs to be open to creative solutions.

In response to these criticisms, DEC and CCE updated information regarding a

variety of alternative deer management techniques, and presented position statements about specific techniques investigated by the CTF. One CTF member initiated a community-wide seminar about immunocontraception by a prominent researcher, who also presented information to members at a CTF meeting.

Many of the responses of DEC and CCE to CTF members' remarks were subtle. Often, without members' knowledge, DEC and CCE changed plans, such as altering the emphasis of a presentation, rewriting a meeting agenda, adding expert speakers, or distributing additional information based on suggestions of CTF members. However, there was one instance in which many CTF members became aware of DEC's responsiveness to feedback from telephone interviews. During an interview, one member jokingly suggested a change in refreshments at the next meeting. When members asked about the change in menu at the next meeting, DEC responded an interviewed CTF member had requested the change. Even though DEC and CTF members joked about the incident, the message to CTF members was that DEC and CCE listened to their comments.

## **Questionnaire Results**

### Expectations About CTFs

CTF members were mailed a questionnaire asking their expectations and perceptions of the CTF and their role as CTF members prior to or shortly after attending the first CTF meeting. Expectations included gathering input from the community (33%); determining if a problem existed and if so, resolving the problem through consensus or public acceptability (33%); and setting deer management policy (22%). Respondents perceived their role as spokespersons for stakeholder interests in the community (90%). A few mentioned their role

was to share ideas and lend expertise to the process (20%), as well as to think about the facts critically (10%).

### Perceptions About Deer

Before attending the CTF meetings, most respondents (90%) expressed one or more concerns about deer in their area (Table 3). Most indicated concern about property damage that deer cause to plants and the ecological landscape. After members had met for three meetings and recommended a deer population level, most members indicated they enjoyed the presence of deer but worried about problems deer may cause (78%). A few (22%) did not enjoy the presence of deer at all, and regarded them as a nuisance.

### Educational Role of CTFs

Findings indicated CTFs played an educational role for CTF members in learning about deer biology, management, and policy-making. After setting a deer population objective, all respondents (100%) agreed or strongly agreed

Table 3. Percent of members reporting concerns about deer in their area.

CONCERNS ABOUT DEER	PERCENT RESPONSE
Deer damage to plants or crops	40%
Number of deer exceeds carrying capacity for the land, too many deer causing ecological damage to the park	30%
Potential for deer-vehicle accidents	20%
Improve public safety and education	10%
Potential for Lyme disease	10%
Poor health of the deer herd as indicated by small size of deer	10%
Future plans of DEC for managing the deer	10%

that participating on the CTF increased their knowledge about deer management and all but one respondent (89%) agreed or strongly agreed that taking part in the CTF increased his or her understanding of other people's views about deer.

CTF members were provided educational materials about deer biology and management prior to attending the first CTF meeting. Seven respondents (70%) had an opportunity to review the materials, of which six (60%) responded to questions about evaluating the materials. Of the six respondents, most indicated the materials were complete (67%), sufficient (67%), understandable (10%), and easy to read (83%). One-third (33%) thought the materials were biased, and half (50%) indicated the materials were neither biased nor unbiased. Only one (17%) thought the materials were unbiased. Half thought the materials were boring (50%), while others thought they were interesting (33%). All respondents reported that the materials helped increase their knowledge to some extent in one or more of the following topic areas:

DEC's deer management policies and procedures . . . . .	67%
Participation on the task force . . . . .	67%
Factors to consider in deer management . . . . .	50%
DEC's methods for determining deer populations . . . . .	50%
Citizen involvement in deer management decisions . . . . .	50%
Deer biology . . . . .	33%

Respondents remarked that additional information needs were maps describing the deer population densities, and methods for estimating deer populations other than hunter harvest records.

After the CTF completed its last meeting, respondents assessed the fairness, complexity, relevance, and completeness of information received during the course of the DMU 96 CTF, including research articles and input from technical advisors about deer management techniques. All but one CTF member (88%) indicated that most of the information supported DEC's viewpoint about deer management. The dissenting member stated that the:

. . . credibility of NYS DEC and Cornell Department of Natural Resources [is] challenged in my mind. Propaganda was used, in my opinion.

Responses were mixed about the volume of information that supported the views of CCE (all-17%, most-34%, some-17%, none-34%), or the views of a particular CTF member (most-29%, half-14%, some-57%). Given that respondents believed information supported particular views, the majority of respondents indicated most or all the information was fair and unbiased (88%), and relevant for making recommendations about deer management (88%).

Most information was extremely (50%) or moderately (25%) adequate for helping respondents understand the technical aspects of deer management. Technical information was understandable to the average person (75%), and members had enough time to read information between meetings (88%). Respondents reported various degrees of previous knowledge about deer and deer management. For many respondents, most (38%) or all (25%) of the information helped improve their understanding about deer and deer management. Half the respondents were familiar with most (38%), half (12%) or some (38%) of the information prior to participating on the CTF; however, one respondent (12%) indicated all of the information was new.

After the last CTF meeting, members reported how their opinions had changed with respect to an item we developed (Appendix E, item #3) to assess attributes of the policy education issue evolution model (Hahn 1988). Respondents were asked whether statements that corresponded to the issue-evolution model had been true or false before and after their participation on the CTF. The directions for this item were misinterpreted by several respondents, and rendered only half of the responses useable. These responses indicated that three statements--influencing policymakers, keeping informed of

proposals, and assessing reactions of stakeholders in the DMU--had changed as a result of participation on the CTF. One respondent indicated his or her interest in learning about the issues and formulation of ideas had been affected by participating on the CTF. Another indicated all the statements were true before and after participating, but the degree to which they were true had changed:

This is a particularly hard question to answer as I had formed ideas, was aware of alternatives--but not all--beforehand, was aware of some consequences--but not all, had attempted to influence policymakers--but not to the degree that I did after the meetings. So while it looks like there was no change before and after, there was a change and it was a MATTER OF DEGREE.

Based on these few valid responses, it appears that, regardless of which participants were in a particular point of the issue-evolution cycle, the CTF approach provided participants an opportunity to learn about deer management policy.

#### Importance of Factors in Decision Making

After they had set the deer population objective, we asked CTF members the importance of understanding several factors prior to recommending a deer population objective. To compare the relative importance, we calculated a mean score for each factor (Table 4). Knowledge of the effect of deer population sizes on crop damage and deer habitat were of most importance to respondents. CTF members placed less emphasis on knowing the politics of management, such as DEC's authority to manage the deer herd, the role of CTFs in policymaking, and limitations on implementing management techniques. Of least importance were the alternatives and consequences of various deer population levels on recreational benefits and the tourism/business industry.

Table 4. Mean score of CTF members indicating the importance of deer management factors in their decision for recommending a deer population level.

TYPES OF INFORMATION	MEAN SCORE <sup>a</sup>	RANGE
Alternatives and consequences of various deer population levels to <u>crop damage</u>	4.7	4-5
Relationship of the number of deer to the condition of habitat	4.7	4-5
Alternatives and consequences of various deer population levels to <u>deer-car accidents</u>	4.6	4-5
Relationship of the number of deer to human land-use trends	4.6	3-5
Methods for determining the size and health of the deer herd	4.3	4-5
Alternatives and consequences of various deer population levels to <u>shrub and garden damage</u>	4.2	4
Methods for controlling the number of deer	4.1	1-5
Extent of DEC's authority to manage the deer herd	4.0	1-5
Role of the task force in deer management decisions	3.9	2-5
Limitations on management (i.e., number of deer that can be harvested given current number of hunters and legal harvest quotas per hunter)	3.6	1-5
Alternatives and consequences of various deer population levels to <u>recreational benefits</u>	2.9 <sup>b</sup>	1-5
Alternatives and consequences of various deer population levels to <u>tourism/business benefits</u>	2.7 <sup>b</sup>	1-5

<sup>a</sup>Response scores ranged from 1 to 5 and were calculated so that a higher score indicated more importance.

<sup>b</sup>A missing value for tourism/business and recreational benefits was not averaged into the mean score.

The low rating for these factors might be attributed in part to the characteristics of the DMU; few, if any, businesses were supported by bowhunting in DMU 96.

Another method to assess the importance of factors in CTF members' recommendation was their rating of ten benefits and costs of alternative deer population sizes (Table 5). Results confirmed previous findings that reduced economic losses to farmers and the risk of deer-car accidents were more important considerations when recommending deer population objectives. Respondents indicated costs associated with deer were more important considerations than the benefits derived from providing deer for people to see, and other such benefits.

Table 5. Mean response of CTF members' comparison of the costs and benefits of alternative deer population sizes.

COSTS AND BENEFITS OF ALTERNATIVE DEER POPULATION SIZES	MEAN SCORE <sup>a</sup>
Economic losses to farmers from deer damage to crops and orchards	29
Reduce the risk of deer-car accidents	22
Reduce deer damage to homeowners' shrubbery and gardens	16
Reduce starvation of deer during the winter	11
Provide deer for people to see	6
Provide recreational opportunities for hunters	6
Provide venison for people to eat	4
Provide deer a place to live despite problems they may cause	3
Reduce the risk of Lyme disease	3
Provide revenue for businesses from recreation and tourism	<1

<sup>a</sup>A higher score indicated more importance.

Changes in Opinions About DEC and Deer Management

Respondents to the first questionnaire that was mailed before the first CTF meeting tended to be critical of DEC. Most indicated DEC's management of deer in their area was poor (45%) or fair (22%), compared to those indicating management was very good (33%). However, when asked their perceptions of DEC's strengths and weaknesses, respondents listed more strengths (12 comments) than weaknesses (8 comments). Identified strengths were management techniques used to control the deer population statewide (60%), the abilities and accessibility of personnel (20%), and solicitation for citizen input (10%). Weaknesses were DEC's position as a politically-controlled organization, lacking absolute deer management authority (30%), bias associated with promoting hunting as the only method to control deer populations (20%), lack of communication with the public (20%), and underestimation of the value of deer for uses other than recreational hunting (10%).

Responses to the second questionnaire, mailed after the third CTF meeting, were less critical of the agency. All respondents indicated that DEC wildlife biologists were attentive to interests that members reflected at the CTF meetings. In the time period between the first and second questionnaires, perceptions of CTF members changed about DEC's communication with the public, management techniques, and personnel (Table 6). Before the CTF set the deer population objective, many members were undecided about DEC's ability to estimate deer populations, but later believed that DEC's estimate of the local deer population was accurate. A few respondents changed their opinions from disagreeing to being undecided or agreeing with the statement that "DEC's management policies are biologically sound." Fewer indicated a

need for DEC to be more attentive to public concerns, and to encourage citizens to express opinions about deer management. After interacting with DEC staff, most respondents indicated that DEC biologists were well qualified to manage deer, and that DEC personnel and their work were more visible to the respondent.

CTF members assessed the responsiveness of DEC to various stakeholder interests (Table 6). A couple more CTF members perceived that DEC was responsive to nonhunting interests after attending a few CTF meetings, and all but one respondent believed DEC was responsive to hunting interests. After attending the meetings, more respondents indicated DEC was more concerned about people and the welfare of deer than collecting money from license and permit sales.

When members initially agreed to participate on the CTF, almost all believed that DEC was sincere in its efforts to regulate deer harvests, and in minimizing the negative impacts of deer on people. Because a high percentage of CTF members held these opinions prior to attending the CTF, little change in opinion was detected after attending a few CTF meetings. In addition, practically no percent change in opinion was detected regarding the excellence of DEC's information base for planning deer management programs. The enthusiasm of DEC personnel about their work with deer was more evident to some, but not all, respondents.

Midway through the CTF, most respondents reported they had not changed their opinions about the deer population (78%). However, one member indicated a new realization that the problem with deer in DMU 96 was worse than once thought, and that listening to other stakeholders had influenced his or her opinion.

Table 6. Percent response of CTF members to agency image items before and after setting deer population objectives.

AGENCY IMAGE ITEMS	PERCENT RESPONSE (SUM) TO QUESTIONNAIRES <sup>a</sup>					
	BEFORE <sup>b</sup>			AFTER <sup>b</sup>		
	AGREE	UNDECIDED	DISAGREE	AGREE	UNDECIDED	DISAGREE
DEC is responsive to the needs and concerns of hunting interests in the deer herd.	80	20	0	89	0	11
DEC is responsive to the needs and concerns of nonhunting interests in the deer herd.	50	30	20	67	12	22
DEC needs to listen more to citizens' opinions about deer management.	80	20	0	56	12	22
Citizens should be encouraged to provide input for determining a population level for deer in their DMU.	90	0	10	78	0	22
Citizens should have the authority for determining a population level for deer in their DMU.	10	50	40	22	12	67
DEC should make the decision for setting a population objective for deer in my area.	70	30	0	89	0	11
DEC has <u>not</u> made an adequate attempt to explain its deer management programs to the public.	60	20	20	67	0	33
DEC biologists are well qualified to manage deer in my DMU.	70	10	20	100	0	0
Deer management policies of DEC are biologically sound.	70	10	20	89	11	0
DEC is more concerned about the people that the deer herd affects than it is about money from license and permit sales. <sup>c</sup>	33	56	11	56	33	11

AGENCY IMAGE ITEMS	PERCENT RESPONSE (SUM) TO QUESTIONNAIRES <sup>a</sup>							
	BEFORE <sup>b</sup>				AFTER <sup>b</sup>			
	AGREE	UNDECIDED	DISAGREE		AGREE	UNDECIDED	DISAGREE	
DEC is more concerned about the welfare of the deer herd than it is about money from license and permit sales.	60	30	10		78	11		11
DEC's estimate of the local deer population level in my DMU is not accurate.	10	50	40		11	11		78
DEC has excellent information for planning deer management programs.	60	40	0		56	44		0
DEC personnel in my area are enthusiastic about their work with deer.	60	40	0		78	11		11
DEC personnel in my area are not visible enough for me to know about their work with deer.	50	20	30		11	22		67
Many deer management decisions made by DEC disregard the views of local people.	20	20	60		11	22		67
DEC is sincere in its efforts to regulate deer harvests while protecting the deer population.	90	10	0		100	0		0
DEC is interested in minimizing negative impacts of deer on people.	100	0	0		89	11		0

<sup>a</sup>N=10 responses to questionnaire before setting objectives; n=9 after setting objectives.

<sup>b</sup>Responses were on a scale of strongly agree, agree, undecided, disagree, or strongly disagree. Respondents indicating strong agreement or disagreement were combined with the agree or disagree categories.

<sup>c</sup>One missing response for the "before" category was not calculated in the percent response (n=9).

### Comparing Public Involvement Approaches

CTF members were asked which technique they preferred for collecting sociological information for deer population decisions in DMU 96. Midway through the CTF meetings, half (56%) preferred the CTF method. One-fifth (22%) preferred that many people be surveyed. One member preferred a public meeting (11%), and another that DEC biologists decide independently without any input from the public (11%). None preferred that wildlife biologists make the decision based on informal contacts with people in the DMU. More agreed that DEC should make the decision for setting the deer population objective, and that citizens should not be authorized to set deer population levels (Table 6).

While only one-half (56%) of the respondents preferred CTFs for making decisions and gathering information, only one member (11%) responded that CTFs should be discontinued and expressed dissatisfaction with the CTF approach (Table 6). The dissatisfied member commented,

Let the DEC professionals decide the appropriate deer population levels. It took 9 hours of meetings to decide what we all knew beforehand--that the population is too high. Then a removal rate was decided upon which the DEC projects will be useless. It will probably take another 9 hours to decide how to "decrease" the population.

This member felt that the low efficiency of CTFs warranted consideration of other approaches. Most members (89%) were satisfied with the CTF approach, despite the extended time required for discussions and reaching a consensus.

### Assessment of the CTF Approach

The majority (> 75%) of respondents rated CTFs as a good, very good, or excellent way to involve a variety of people in deer management decision

making (Table 7). No members rated CTFs as fair or poor until after the CTF had recommended a deer management technique. It appears more members were supportive of CTFs as a way to recommend a deer population objective rather than as a means to recommend a management technique.

Table 7. Respondents' assessment of the CTF approach as a means to involve people with a variety of interests in deer management decision making.

RATING	PERCENT RESPONSE AFTER RECOMMENDING . . .	
	DEER POPULATION OBJECTIVE	DEER MANAGEMENT TECHNIQUE
Excellent	11	39
Very good	56	12
Good	33	25
Fair	0	12
Poor	0	12

Midway through the meetings, after setting a deer population objective, respondents were also asked to rate the CTF meetings. Many respondents indicated the CTF meetings were very good or excellent in terms of their organization (78%) and DEC's information presentation (56%). Fewer respondents were satisfied with DEC's management of deer in DMU 96 (poor-44%, fair-11%, good-22%, very good-22%). After recommending a deer management technique, about one-third of CTF members believed the CTF approach was a fair (25%) or poor (12%) way to resolve deer management issues in suburban environments (good-12%, very good-39%, excellent-12%).

Respondents rated the diversity of stakeholder interests and composition of the CTF (Table 8). Most (88%) felt that there was adequate input from a broad range of people in the community. One member stated:

Table 8. Respondents' assessments of membership in the CTF after recommending a deer management technique.

SELECTION OF CTF MEMBERS . . . .	PERCENT RESPONSE (SUM)		
	AGREE OR STRONGLY AGREE	UNDECIDED	DISAGREE OR STRONGLY DISAGREE
reflected a broad range of interests in the community.	88	0	12
reflected only the opinions of a minority of people in the community.	12	12	75
gave all those who wanted to participate an adequate chance to do so. <sup>a</sup>	72	14	14
encouraged open exchange of opinions.	100	0	0
encouraged thought about ways to solve the deer population problem. <sup>a</sup>	100	0	0
caused the task force to arrive at a predetermined outcome.	12	0	88

<sup>a</sup>One missing response was not calculated in the percent response (n=7).

I think each community person had a viewpoint presented on the task force, and they funneled questions or viewpoints in through the stakeholders.

All respondents felt that the composition of the CTF encouraged open exchanges of thoughts and opinions about solving the deer population problem.

The open

exchange of opinions that occurred was important especially to one member, who commented:

I am reasonably satisfied because I was given an opportunity to speak when I had something important to say and all members of the task force listened to the other members, even if the opinion expressed conflicted with their own.

Suggestions were made that more public input should be incorporated by

conducting a non-biased community survey, and by holding public education/input sessions.

CTF members preferred that the mass media, town and county government officials, and people in the community be involved at some stage of the CTF process (Table 9). Most preferred involvement of the media after the last CTF meeting, of government officials when discussing deer management techniques, and of people in the community to some extent during all CTF meetings.

Respondents assessed several statements concerning the fairness, efficiency, stability, and wisdom of the CTF approach and its recommendations (Table 10). When recommending a deer population objective, all but one CTF

Table 9. Respondents' preferences for involvement of the mass media, town and county government officials, and people in the community during different stages of the CTF approach.

SEQUENCE OF CITIZEN TASK FORCE MEETINGS	PERCENT RESPONSE		
	MASS MEDIA	GOVERNMENT	COMMUNITY
Before the first meeting	38	38	50
Meetings 1-2 when discussing deer population objectives	12	25	50
Meeting 3 when agreeing on deer population objectives	38	38	50
Meetings 4-6 when discussing deer management techniques	25	63	50
Meeting 7 when agreeing on deer management techniques	25	38	38
After Meeting 7, the last task force meeting	75	38	63
Not at any time before, during, or after the task force meetings.	0	0	0

Table 10. Respondents' agreement with statements about the CTF approach midway through the meetings and after recommending a deer management technique.

AGENCY IMAGE ITEMS	PERCENT RESPONSE (SUM) TO QUESTIONNAIRES <sup>a</sup>					
	BEFORE <sup>b</sup>			AFTER <sup>b</sup>		
	AGREE	UNDECIDED	DISAGREE	AGREE	UNDECIDED	DISAGREE
The number of meetings and length of discussion were adequate for arriving at a consensus.	100	0	0	-	-	-
The task force represents early citizen involvement in setting deer population levels, before too many decisions are made. <sup>c</sup>	50	12	38	-	-	-
Most participants were dissatisfied with the task force process.	0	33	67	-	-	-
The task force by design was biased toward promoting some interests at the expense of others.	11	11	78	-	-	-
The task force needs more time between meetings for review and deliberation.	0	12	88	-	-	-
The task force recommendation (about a deer population objective) was decided fairly.	88	0	12	88	0	12
The viewpoints of people most affected by deer population decisions were well represented at the task force meetings.	88	0	12	76	12	12
The citizen task force approach should continue to be used in the future for recommending deer population objectives/techniques.	89	0	11	63	37	0

AGENCY IMAGE ITEMS	PERCENT RESPONSE (SUM) TO QUESTIONNAIRES <sup>a</sup>							
	BEFORE <sup>b</sup>				AFTER <sup>b</sup>			
	AGREE	UNDECIDED	DISAGREE		AGREE	UNDECIDED	DISAGREE	
The task force's recommendation differs from what the majority of people living in the DMU would have recommended.	22	0	78		25	0	75	
Everyone on the task force was given the opportunity to express his or her viewpoint.	-	-	-		100	0	0	
The task force was responsive to those people who were most affected by the recommendation.	-	-	-		63	25	12	
All task force members were given a chance to be involved in discussions.	-	-	-		100	0	0	
The recommendations are feasible in light of the social and political context within DMU 96.	-	-	-		88	0	12	
The task force should be reconvened next year after additional data are gathered.	-	-	-		50	12	38	
I would be willing to renegotiate in another task force meeting if something goes awry in implementing the task force recommendations.	-	-	-		75	0	25	
The release of task force recommendations coincided with deadlines for government decision makers. <sup>c</sup>	-	-	-		72	14	14	

<sup>a</sup>No response for an item indicates the item was missing from that particular questionnaire.

<sup>b</sup>Responses were on a scale of strongly agree, agree, undecided, disagree, or strongly disagree. Respondents indicating strong agreement or disagreement were combined with the agree or disagree categories.

<sup>c</sup>One missing response was not included in the calculated percent response for these items.

member believed that the CTF recommendation was decided fairly and the viewpoints of people were well represented (Table 10). One indicated that the CTF design was biased. The member remarked, "the task force included farmers and hunters in an area primarily composed of suburban homeowners." Opinions were mixed about the efficiency of the CTF approach. After setting a deer population objective, CTF members were unanimous in believing that meetings were adequate, although one member could not decide whether more time was needed for deliberation. After the last CTF meeting (Table 10), all respondents indicated that members had been given an adequate opportunity to express different viewpoints and a chance to be involved in discussions. But the time involved in reaching a decision was unsatisfactory to one member (see page 41).

The stability and wisdom of the outcomes initially appeared to be well-grounded in the relationships formed and educational exchanges observed during the CTF meetings. The stability of the recommendation appeared to be high, as none of the respondents indicated that the CTF did more harm than good for their interest. Most thought CTFs were a good (38%), very good (12%) or excellent (38%) way for citizens to make well-informed recommendations. Perceptions of fairness, stability, efficiency, and wisdom of recommendations are enhanced if CTFs provided a way for participants to leave with an accomplishment that benefitted their stakeholder interest (Suskind and Cruikshank 1987). Perceptions of CTF members implied not all members benefitted equally from participating on the CTF (Table 11). About two-thirds of the respondents (63%) indicated everyone gained something from the recommendations, but that some people had gained more than others. Almost all

(88%) indicated some members compromised more than others. Many agreed that everyone had to give up something (75%) for the CTF approach to function.

Other items in the questionnaire substantiated these findings. Most respondents (75%) agreed with the statement that the CTF had achieved consensus among diverse interests in the community, but all agreed (100%) that consensus had been achieved at the expense of alienating some interests. The CTF's ability or inability to reach a consensus affected some member's assessment of the CTF approach. Members who were satisfied with CTFs midway through the meetings commented:

...consensus approach is a key to my satisfaction.

I think the group is working well toward a consensus although a little slowly.

Respondents expressed mixed opinions concerning their preferences for the way CTFs should define consensus. The DMU 96 CTF defined consensus as all but one member reaching agreement with the recommendation. Half of the CTF respondents indicated the definition used in DMU 96 was the best alternative.

Table 11. Respondents' assessment of CTFs as a "win-lose" or "mutual gains" approach after recommending a deer management technique.

THE RESULTS OF THE TASK FORCE RECOMMENDATIONS WERE THAT . . .	PERCENT RESPONSE (SUM)		
	AGREE OR STRONGLY AGREE	UNDECIDED	DISAGREE OR STRONGLY DISAGREE
everyone gained something.	63	12	25
some people gained more than others.	63	37	0
some people compromised more than others.	88	0	12
everyone had to give up something.	75	0	25

When asked to select a preference from a list of alternative definitions of consensus, a few members commented:

This is such a difficult question--it all depends on how you choose members, size of group, etc. Under some circumstances you could make it all but 2 or all but 3... It worked ok for the process we were involved in.

... facilitate reaching decisions which task force members are willing to speak for. If a task force had more than one person unwilling or unable to listen to and assess other points of view, consensus rules would have to be changed to accomplish anything.

Those supporting a definition of consensus as the majority of members serving on a CTF (25%) indicated:

A simple majority decision would allow business of the task force to be accomplished without undue delay and posturing.

Since task force members are supposed to represent the community at large, one would hope that consensus would reduce friction.

Two others (25%) defined consensus as all members agreeing with the recommendation. Reasons for supporting this definition were:

That's the classic definition of consensus as per articles and books I researched.

Reaching a unanimous agreement should eliminate most of the backbiting and attempts to undermine the CTF recommendations which occurred after the press conference.

Members' perception of the DMU 96 CTF and its ability to reach consensus appeared to be synonymous with increased satisfaction, success, and achievement for some, while it was an inefficient mechanism for making decisions to others.

Performance of CTF Members

During the process of setting a deer population objective, most respondents (89%) indicated that they discussed the issue with people in the community. The number of people contacted ranged from 5 to 100 people, achieving a total of 200 people contacted in the DMU midway through the CTF meetings. Most respondents indicated that all or the majority of those contacted shared a similar opinion about deer (77%), and was an adequate representation of the stakeholder group in the DMU (77%). An exception was one respondent who indicated that a minimum of 24 people should be contacted for adequate representation of stakeholder groups.

Respondents rated their personal performance with that of other CTF members midway through the meetings (Table 12). Several respondents were more positive about other members' performance than their own. Several agreed or

Table 12. Respondents' agreement with statements about being a CTF member.

STATEMENTS ABOUT PARTICIPATION ON THE CITIZEN TASK FORCE	PERCENT RESPONSE (SUM)		
	AGREE OR STRONGLY AGREE	UNDECIDED	DISAGREE OR STRONGLY DISAGREE
Task force members did a good job of projecting the interests of the people in the DMU.	78	11	11
I wish I had been more involved in the task force discussions.	11	33	56
Not all task force members participated fully in the discussions.	78	11	11
I feel that I participated effectively in the task force meetings.	67	22	11

were undecided about the need to be more involved in CTF discussions (44%), and to participate more effectively at the meetings (33%).

#### Assessment of DEC's and CCE's Involvement

CTF members assessed the involvement of DEC and CCE after recommending the deer population objective (Table 13). For the most part, respondents were more favorable toward DEC's and CCE's performance than their own. Midway through the process, all believed that CCE provided capable leadership at the meetings. Two respondents indicated DEC and CCE had tried to persuade the CTF toward recommending the deer population objective that the agencies desired, participating in the CTF decreased their confidence in the wildlife management agency, and wildlife biologists avoided answering some questions presented by CTF members. Many were undecided (37%) about whether the CTF recommendation would be implemented by wildlife biologists.

All CTF members were supportive of involving a third-party facilitator either to set the ground rules or assist CTF members in setting the rules for the meetings. One CTF member, who preferred that the facilitator set the ground rules, indicated:

If you want to try another format, it will take weeks to research group rule options and come to an agreement.

Although all were favorable about the facilitator techniques used, one CTF member did recommend using a professional facilitator, such as one from the Cornell School of Management, to lead the meetings and set the ground rules.

#### Outcomes of the CTF

Respondents perceived both positive and negative outcomes resulting from the CTF. Most agreed that the CTF achieved consensus at the expense of alienating some interest groups, but caused state and local government

Table 13. Respondents' agreement with statements about DEC's and CCE's involvement in CTFs.

STATEMENTS ABOUT TASK FORCE ORGANIZERS	PERCENT RESPONSE (SUM)		
	AGREE OR STRONGLY AGREE	UNDECIDED	DISAGREE OR STRONGLY DISAGREE
The Cornell Cooperative Extension agent provided capable leadership for the meetings.	100	0	0
Wildlife biologists avoided answering some questions asked by task force members.	11	0	89
After the wildlife biologists' presentations, the task force members engaged in most of the discussion.	100	0	0
Participating in the task force has decreased my confidence in those who manage deer in my DMU. <sup>a</sup>	25	0	75
Wildlife biologists are attempting two-way communication with the people in the DMU. <sup>a</sup>	100	0	0
Wildlife biologists tried to get the task force to recommend the population level desired by DEC. <sup>a</sup>	25	12	63
The Cornell Cooperative Extension agent tried to get the task force to recommend the population level desired by the agent. <sup>a</sup>	25	0	75
The task force's recommendation will become the DMU deer population objective used by wildlife biologists during the next few years. <sup>a</sup>	63	37	0

<sup>a</sup>One missing response for these items was not calculated in the percent response (n=8).

officials to be more attentive to people's opinions about deer (Table 14). One or two members were undecided or disagreed with other CTF members on whether the CTF achieved consensus, built community relations, and educated members or the public about deer and deer management.

Table 14. Respondents' assessment of outcomes from the CTF.

THE TASK FORCE . . . .	PERCENT RESPONSE (SUM)		
	AGREE OR STRONGLY AGREE	UNDECIDED	DISAGREE OR STRONGLY DISAGREE
achieved consensus among diverse interests in the community.	75	0	25
achieved consensus at the expense of alienating some interests. <sup>a</sup>	100	0	0
built positive relationships among diverse interests in the community. <sup>a</sup>	71	29	0
widened the "communications gap" between diverse interests in the community.	12	25	63
caused state and local government officials to listen more to people's opinions about deer.	100	0	0
caused state and local government officials to make hasty decisions about the future of the deer herd.	12	0	88
educated members about deer and deer management.	88	0	12
educated the public about deer and deer management.	88	0	12

<sup>a</sup>One missing response for these items was not calculated in the percent response (n=8).

Several CTF members commented that the most important outcome of the DMU 96 Citizen Task Force was its influence (positive and negative) on town, county, and state governments toward taking actions to manage the deer population in Irondequoit. Some comments were:

- + The discussion about the issue increased to the point where politicians were willing to take action. ...The [most important outcomes were the] coming culling of the deer herd in Irondequoit which should lead to increased safety to automobile users, and lessen destruction of public and private property.
- + [The CTF] brought all the diverse opinions and plans about deer management together in one publication which could be presented to the legislators so that they could say "the public has spoken;" therefore, they could not be "held" accountable for any decisions made!
- + ...[the CTF caused] movement of local officials towards resolution of the deer issue.
- + [The CTF] helped bring about a more meaningful discussion of the issue among all interests and among the various branches of government and to some degree among the press corps....We accomplished a management initiative that would have been impossible otherwise.
- County and town [governments] plan to kill deer with no scientific basis, no data; [killing deer is] just a quick fix that won't fix anything. Also, [government officials] mistakenly believe they don't have to do anything about public safety, browse damage, or public opinion.

Those who supported the recommendations of the CTF and subsequent actions of government officials were pleased with the sequence of events that the CTF had initiated. One member who was opposed to portions of the CTF recommendations was displeased with the degree to which government officials relied on input from the CTF in its decision making.

Besides influencing state and local governments, CTF members informed people in the community about the CTF approach and outcomes. CTF members who

were connected with grassroots citizen affiliations (88%) reported informing 2,115 organizational members about the CTF by: (1) letters to the membership; (2) oral presentations at meetings; (3) distribution of meeting minutes, newsletters and reports; (4) questionnaires distributed through newsletters; and (5) notification via phone committee.

In addition, members estimated that they communicated individually with 285 people who were not associated with the interest group that the member reflected on the CTF. One-third (38%) of the members reported being interviewed by a newspaper or television reporter about the CTF. Three-fourths (75%) voiced their opinions about the CTF through various mechanisms:

Wrote to editor and to county legislators from my district. Talked to mayor and police chief [from my town]. [Attended] county legislature meetings to speak out.

. . . student interviews for their community projects classes - 5 or 6 came at different times to tape and interview us... which were in turn watched by other members of their classes. Also students from area colleges and high schools came to use files and interview us for term papers, etc.

[Attended] government meetings. My own organization's sponsored events, such as... lecture [on reproductive inhibition of deer], public safety presentations in towns of Brighton and Irondequoit, etc.

[Attended] all county legislature meetings dealing with deer management legislation [and] Irondequoit town board meetings.

Spoke to county legislature and its sub-committee in charge of parks. Spoke to Irondequoit town board. I had never spoken to any legislative body before.

Since attending the CTF, one member reported a cooperative effort had begun with DEC. The local organization began training people in the community about biological techniques to assess the deer population:

DEC staff brought 2 deer...to show...how to take age, sex, bone marrow sample, uterine study, etc., and provided equipment... to read deer in Irondequoit. [The police chief], animal control officers and parks personnel are working together to bring deer [to us]. Students are being involved in deer related studies using statistics [and] were finding and extending information to look for heavy metals in the kidney and liver. To date, about 25 deer have been measured.

Educating and training community volunteers who will then educate others about deer biology and data collection techniques exemplifies how an agency can maximize its communication efforts.

#### Improving CTFs

When the CTF approach was completed, several respondents (63%) suggested improvements for future CTFs in other suburban areas. Comments focused on who should be asked to participate on CTFs:

More deer or animal activists should have been included, provided they agreed that the deer herd population size is a problem, and they agreed to support consensus. [Having only one organization] as the exclusive animal activist was a mistake. More homeowner associations should have been included. Tree farmers, other agricultural interests were over-represented on this task force, as DMU 96 is urban and suburban, not rural.

The CTF lacked representation from groups more appropriate for resolving urban/suburban deer problems, such as homeowner groups near Durand Eastman Park, the Humane Society of Rochester and Monroe County, hikers, or other environmental groups which consider wildlife and their natural environs as a valuable part of the nature experience.

There will always be conflicts about how groups are invited to participate in the task force. Obviously the results would have been different had S.O.D. (Save Our Deer) (lately organized with a small following?) and Humane Society been involved as stakeholders. I don't envy [your responsibility] of choosing stakeholders for [participating in] the group. Perhaps more press at the beginning as to how stakeholders are chosen would have been appropriate.

In the questionnaire, respondents (50%) identified stakeholder interest groups that were not included in the DMU 96 CTF, such as homeowner and neighborhood associations, environmentalists and ecological societies (e.g., Audubon Society), park users, animal rights groups (e.g., Save Our Deer), the Humane Society of Rochester and Monroe County, insurance companies, children, and risk and statistic experts.

After the DMU 96 CTF had completed its task, others in the community expressed opinions in support of the selection process for the CTF members:

Rather than reflecting traditional rural deer interests, the make-up of this CTF was quite different from that of the previous CTFs. Recognizing the unique and serious deer problem which was plaguing homeowners and drivers and was affecting natural ecological balances particularly in Irondequoit, this CTF included a significant number of "stakeholders" representing non-traditional, and definitely suburban, interests. . . (Irondequoit Deer Action Committee 1992).

Even though the CTF had completed its objectives, respondents continued to express interest in the CTF process. One respondent recommended providing members with minutes to the meeting:

I would like to have a complete set of minutes. I believe one of our most crucial meetings was in June. I never received a set of these minutes. It would also be helpful to have a set of tapes to hear between meetings.

Being able to review the accomplishments of past meetings was important to CTF members. Meeting minutes were a record of the incremental steps made at each meeting, which were useful later when interacting with the public about the logic of CTF recommendations. When viewed in hindsight, meeting minutes provided members a record of progress toward reaching consensus and developing a deer management plan.

Another member expressed interest in continuing the CTF's involvement with local government officials in developing a plan to implement the recommended deer management technique.

We didn't have recommendations for implementation. I'm not sure they were needed - and it is probably better that the legislative bodies do this. But I think we could have had some talk on timing, locations etc. - which are going very well without our having discussed it.

Because arrangements for implementing the recommendation had progressed well from this member's view, he or she was hesitant to suggest further involvement in implementation of the CTF recommendation. But it was obvious that this respondent believed he or she had gained expertise that could be shared, and perceives ownership in the CTF and its recommendations. This member and others were willing to continue meeting with government officials to facilitate implementation of the recommendations.

#### DISCUSSION

Several wildlife management agencies have addressed deer management issues in suburban environments in a variety of ways (Kuser and Applegate 1986, McAninch and Parker 1991, McMullin and Nielsen 1991, Witham 1991). Once a wildlife management agency decides to manage suburban deer herds, agencies can choose whether or not to involve the public in recommending deer management techniques. In this report we provided results from evaluating CTFs as a public involvement approach in which citizens in the community developed and recommended deer population objectives and management techniques to state and local policymakers and the community.

The DEC in cooperation with CCE implemented a public involvement strategy, the CTF, in rural DMUs in 1990. In the DMU 96 CTF, DEC asked

members to recommend deer management techniques in addition to deer population objectives. CTFs held in rural locations typically reached consensus and recommended deer population objectives in two or three meetings. In DMU 96, identifying deer management techniques and reaching consensus required an additional three to four meetings. It appeared that members needed the time during the nine-month duration of the CTF (eight meetings total) to synthesize the information learned and exchanged, and then to assess and form attitudes about the acceptability of deer management options.

The issues that suburban CTF members addressed were more complex than those of their rural counterparts. The political practicality of deer management techniques was assessed, such that members identified a web of laws and regulations that placed restrictions on alternative deer management techniques. In other words, a technique could be biologically feasible, but impractical because of legal limitations or ethical considerations. Another difficulty was scientific uncertainty pertaining to the efficacy of nontraditional techniques. Members also considered the degree of danger that techniques posed for people living in close proximity to deer in residential neighborhoods. In comparison to rural CTFs, a greater degree of emotional intensity was associated with the lethal removal of deer.

Based on the evaluation of the CTF in DMU 96, we recommend that the CTF model be modified for use in suburban environments in at least five ways: (1) identification and selection of stakeholder participants, (2) data collection from people in the community, (3) definition of consensus, (4) continued involvement in implementation phase, and (5) magnifying and improving communications within the CTF and to the public at large.

### Identification and Selection of Stakeholder Participants

More stringent criteria for identifying and selecting stakeholders to participate on CTFs is needed for CTFs in suburban locations. In DMU 96, limiting the CTF to citizens and not including government officials was effective in minimizing the political nature of the deer population issue initially. An effective way to involve government officials was as technical advisors, keeping them apprised of the progress of the CTF as it was underway. Nongovernment organizations, such as The Humane Society of Rochester and Monroe County and the Audubon Society, were not involved as members nor technical advisors. We recommend that their involvement in either capacity be considered in future suburban CTFs.

We recommend that any and all stakeholders in the community be reflected by a member serving on the CTF. Overlooking any stakeholder interest can reduce the potential for creating a plan that will be acceptable to policymakers and the community at large. Initially the facilitator and agency can develop a list of stakeholders present in the DMU. Examples of ways to identify stakeholders that may be overlooked include obtaining nominations through contacting key community leaders, holding public meetings, designing advertisements in newspapers, sending direct mailings, or holding an initial CTF meeting for member's input. A facilitator could convene CTF members initially to discuss the CTF approach and review the membership to decide if others should be invited to reflect accurately the interests present in the community.

The potential benefits of allowing new members to join after the initial meeting should be considered. This would provide an opportunity for people to participate who became aware of the CTF after it's initial meeting. Based on

results from evaluating CTFs held in rural settings (Stout et al. 1993), it appears that ten members is the optimal group size of a CTF; however, it may be necessary to include more than ten to reflect adequately all interests in the suburban community.

### **Collecting Data About Opinions of People in the Community**

CTF members in DMU 96 expressed dissatisfaction with the process used to collect opinions from people in the community about the deer population size and management techniques. In rural CTFs, members were amenable to a CTF process in which they contacted friends and neighbors for input, perhaps because they may have perceived that opinions were more homogenous in the rural community. Members of the suburban CTFs, however, indicated that they desired "scientific" approaches to obtaining input from the community. Organizers of future suburban CTFs may want to consider building a research plan into the CTF model that involves participants in planning and implementing a survey. For example, CTF members can develop telephone survey instruments and conduct interviews with a sample of people in the community. The disadvantages are the extended time and costs associated with developing and implementing the survey instrument, printing and mailing costs, and analyzing the data.

### **Definition of Consensus**

The long-standing controversy about deer management in Irondequoit polarized interests prior to implementation of the CTF. Therefore, at the first meeting several members were pessimistic about the ability of the CTF to bring resolution to deer management issues in DMU 96. Members perceived

consensus would be difficult to reach because of seemingly disparate views about deer management issues. Some members believed that the presence of too many deer was the cause of their deer-related concerns, while others emphasized that the behaviors and actions of people, not deer, were at the root of human-deer conflicts.

At each CTF meeting members progressively gained (1) ownership in the CTF's recommendations and (2) a sense of empowerment to create change by gaining knowledge about how they and their interest groups could affect policy decisions pertaining to deer management in Irondequoit. For example, after reaching consensus on a deer population objective, some members were more optimistic about reaching consensus on deer management techniques for the DMU.

Reaching consensus was equated with bringing resolution to the problem. To increase the probability that a consensus would be reached, consensus in the suburban CTF was defined as all but one member agreeing to the recommendation. In rural areas, consensus was defined as all members agreeing with the deer population objective (Suskind and Cruikshank 1987). In a few instances, consensus was not achieved in rural CTFs because one or two members disagreed with others (Stout et al. 1993). The consequence was that DEC made a decision based on the opinions of members presented at the CTF meetings. In each instance, DEC's decision reflected what the majority of CTF members recommended regarding the size of the deer herd.

In the suburban CTF, no single agency had authority over decisions-- instead, government agencies were required to work in collaboration for a deer management plan to be implemented. The CTF provided government officials with recommendations based on a consensus from a variety of people in the community. The perceived consequence of not reaching consensus was that

government agencies would take no action on recommendations which CTF members could not agree.

In DMU 96, all members reached a unanimous consensus about the short-term and long-term deer population objectives and management techniques for most of the DMU, with the exception of the short-term technique of culling deer in Irondequoit. All but one member agreed to culling deer over bait, fitting the DMU 96 definition of consensus. The CTF report did not contain the opinions of the dissenting member, who subsequently issued a minority report at the press conference to express opposition to the CTF recommendations. Protesters opposing the CTF recommendations also attended the press conference. Later, one interest group on the CTF responded to the minority report with a rebuttle of its own that favored the CTF recommendations.

Despite the continued debate about the CTF recommendations, government agencies convened and developed a deer management plan based on the CTF recommendations. Before the plan was implemented, however, those opposed entered a court injunction which delayed implementation (Alatzas 1993a). Later, two households in support of the deer management plan were threatened by fake pipe bombs on their property (Smith and Livadas 1993).

It is uncertain whether this barrage of counterattacks might have been avoided had the CTF worked toward a unanimous consensus for all recommendations. Some participants in the DMU 96 CTF suggest that the events following the DMU 96 CTF's recommendation were unavoidable, and that there is no better way to resolve these deer management issues. Subsequent reactions to the CTF recommendations demonstrated that the consensus (minus one interest) reached by the CTF pertaining to culling deer in Irondequoit did not

foster complete agreement in the larger community. Had consensus been defined as agreement by all CTF members, a different set of recommendations may have been reached and engendered greater community support.

Attempting to reach a unanimous consensus probably would have required more time for CTF members to develop recommendations in which all members could agree. It is possible that more CTF members would have been dissatisfied with the CTF approach if a consensus, however defined, had not been reached in a timely manner. However, defining consensus as all members agreeing to a recommendation would have forced members to work harder to create mutual gains for all interests on the CTF and in the community. If agreements were not unanimous, the final report could have identified which recommendations were contentious and why to avoid an aftermath of rebuttles that could have jeopardized implementation of the CTF's recommendations.

#### **Continued Involvement in the Implementation Phase**

Once the CTF plan was communicated to government officials and the community, the work of the CTF was completed--or was it? CTF members indicated they continued attending local government meetings and voicing their opinions to decision makers in the community after the CTF recommendations had been distributed in the community. A government task force was formed following the CTF to work on details for implementing the CTF's recommendations.

The government task force accomplished a great deal in planning the implementation of the CTF's recommended short-term solution, selectively culling deer at bait sites. However, the government task force did not fully implement the CTF plan as it was recommended. In particular, there has been a

lack of support for continued investigations and research leading to implementation of immunocontraception techniques, the long-term solution recommended by the CTF. When acting on the CTF recommendations, we advise that CTF members be invited to attend subsequent planning sessions and participate in deer management activities to bring continuity to the deer management plans and to maintain rapport with the CTF members.

Another example of how CTF members can continue to be involved in deer management is the effective use of volunteers to monitor wildlife populations (Horke1 1993). In DMU 96, DEC trained volunteers to assess the health of car-killed deer. Volunteer efforts have several lasting benefits for wildlife management agencies. Horke1 (1993) reported volunteers became skilled technicians who assisted the agency with monitoring and research activities. Data collected by volunteers provided base-line research, and served to increase volunteers' understanding and knowledge about wildlife. Some became advocates for legislation supporting agency actions. Linking with volunteers also created a network for agencies to interact with influential members of organizations and the community.

### **Magnifying and Improving Communications**

Those who implement CTFs need to be sensitive to communications that occur not only within the confines of the CTF meetings, but also between CTF participants and the public. Internally, much communication occurred between CTF members, the agency, and the facilitator about deer and deer management techniques.

The perceived responsiveness of the agency and facilitator to the needs of CTF members might be improved if periodically, organizers would indicate

how input from members was used to adjust the meeting's content or format. It was not obvious that the format of a meeting was based in part on feedback from members. For instance, organizers may invite an expert speaker to the meeting to address information needs expressed by members during telephone interviews. Members who did not indicate a need for information may not realize that organizers were responding to other members' input. Members who did request information may not link their request to the presence of the speaker at the meeting. To improve perceived responsiveness of organizers to members, organizers could indicate when meeting content or format was changed in direct response to members' input.

Communications with the public and policymakers was an important part of the CTF's ability to build a feasible and applicable recommendation. Conversely, the CTF approach served as a vehicle for DEC and other policymakers to communicate externally with a variety of stakeholders about deer and deer management in the community. The challenge was to magnify the information exchange and consensus-building that occurred on the CTF to the community at large. The mass media tended to focus on points of contention rather than the positive gains of the CTF. To address this need for communicating with the public at large, DEC developed a communication strategy in which the CTF approach was the cornerstone (Stout and Knuth 1994).

Developing a communication strategy is especially important in suburban areas where citizens may have little knowledge of DEC, other than as a regulatory agency. Involving local community leaders in discussing alternative deer management techniques on the CTF improved communications between suburban residents and policymakers. The recommendations of the CTF

would have been stymied without support from local policymakers and the latent consent of the general public.

#### Conclusion About Application of CTFs in Suburban Environments

The utility of CTFs in suburban environments needs further investigation. Although some community action did result from recommendations of the DMU 96 CTF, the repetition of the CTF approach in other suburban environments could yield vastly different outcomes. At several points after CTF members completed their final report, the ensuing implementation of the CTF's recommendations was precarious. The dissention of one CTF member about managing deer resulted in a court injunction that temporarily delayed implementation of the CTF's recommendations. Such action calls to question the definition of consensus used on the DMU 96 CTF, and the legitimacy of using a public involvement approach for a decision that in some instances ultimately will be settled in court (Amy 1983). The challenge is to find a way to incorporate minority opinions and keep those stakeholders involved in recommending solutions to deer management issues.

The political nature of deer management was more evident in the suburban CTF than in rural CTFs. Legislative actions associated with the deer management plan became political issues in DMU 96. Laws about discharging firearms and budgets required approval of local government boards. Newspaper coverage about local elections included the stance of contenders about the deer management issue (Anonymous 1992b). County government officials were divided along party lines. But for one vote, the recommendations of the CTF would have stalled.

Another variable that greatly affected the CTF approach was the mediation skills of the facilitator. The ability of the facilitator in bringing together people with divergent interests is crucial in suburban environments where there is high potential for conflict among stakeholders. A skilled facilitator can lead members to explore (1) underlying values of members with regard to deer and deer management, and (2) alternative solutions for mutual gain of stakeholders and the community at large. Background in suburban deer management issues may not be necessary, but would greatly assist the facilitator in preparing a CTF. It is very important that the mediator provide all parties involved an opportunity to express opinions, be open and responsive to opinions of the majority and minority alike, and work towards finding common ground.

The CTF approach requires a substantial commitment of time and energy from the facilitator, CTF members, and the agency. Those involved in implementing the CTF must be attuned to details associated with meeting content and format, while remaining flexible to change based on input from members. The facilitator and others involved in the organizing a CTF need to devote time to planning, developing, implementing, and evaluating the CTF, as well as investing in the subsequent actions required for implementation of the CTF recommendations. These actions may include meeting with local government officials and coordinating efforts to ensure the CTF recommendations are implemented.

Without one or more people devoting such time commitments to the CTF approach, we believe it is better that the CTF not be implemented at all. The risk is that (1) the CTF may divide rather than unite members if not enough time is devoted to identifying common concerns and underlying values of

members, (2) CTF members may recommend an infeasible or ineffective approach based on poor information or lack of interaction with appropriate policymakers, or (3) the CTF recommendation will be ignored if policymakers were not given the opportunity to advise CTF members of their legal limitations and boundaries.

Despite these potential pitfalls, the CTF approach is an appropriate tool in suburban environments where deer management actions are needed. Whether a public involvement approach, such as a CTF, is appropriate for a particular suburban community is for the wildlife management agency and the community to decide. Several public involvement approaches can be used to provide public input for the deer management decision-making process (Stout et al. 1994). Wildlife management agencies and cooperators should assess the costs and potential benefits of implementing a public involvement approach. If willing to commit the time and energy required, the rewards could be substantial in facilitating the coexistence of deer and people in a suburban environment.

#### LITERATURE CITED

- Alatzas, T. 1993a. Bait-shoot fight goes to court. Rochester Democrat and Chronicle, February 9.
- Alatzas, T. 1993b. A too-close encounter with doe turns bait-and-shoot foe into fan. Rochester Democrat and Chronicle, April 13.
- Amy, D. J. 1983. The politics of environmental mediation. Ecology Law Quarterly 2(1):1-19.
- Anonymous. 1992a. Battle lines drawn, as deer and people collide (Irondequoit, N.Y.). New York Times, December 29.
- Anonymous. 1992b. Irondequoit candidates discuss the issues. Rochester Democrat and Chronicle, September 2.

- Anonymous. 1992c. Woman killed as car avoids deer. Rochester Democrat and Chronicle, November 2.
- Baker, S. 1992. Minority report: deer management unit 96 citizens' task force. Monroe Co. Alliance for Wildlife Protection, Rochester, NY. 13p. + app.
- Brush, C.C., and D.W. Ehrenfeld. 1991. Control of white-tailed deer in non-hunted reserves and urban fringe areas. Pgs. 59-66 in L.W. Adams and D.L. Leedy, eds. Wildlife Conservation in Metropolitan Environments. NIUW Symp. Ser. 2, National Inst. for Urban Wildlife, Columbia, MD.
- Bureau of Wildlife. 1989. Planning the management of New York's wildlife: preliminary assessment of wildlife management needs. Division of Fish and Wildlife, New York State Department of Environmental Conservation, Albany, NY. 75p.
- Curtis, P. D. and M. E. Richmond. 1992. Future challenges of suburban white-tailed deer management. Trans. North Am. Fish and Wildl. Conf. 57:104-114.
- Curtis, P. D. and R. J. Stout, B. A. Knuth, L. A. Myers, and T. M. Rockwell. 1993. Selecting deer management options in a suburban environment: A case study from Rochester, New York. Trans. North Am. Fish and Wildl. Conf. 58:102-116.
- Curtis, P. 1993. Public policy education: an important wildlife management opportunity. Proc. Wildl. Damage Control Conf. 6:in press.
- Decker, D. J. 1991. Implications of the wildlife acceptance capacity concept for urban wildlife management. Pgs. 45-53 in E.A. Webb and S.Q. Foster (eds.) Perspectives in Urban Ecology. Proc. Symp. on Perspectives in Urban Ecology, Denver Museum of Natural History, 1990. Denver Museum of Natural History, Denver, CO.
- Decker, D. J., and T. L. Brown. 1987. How animal rightists view the "wildlife management-hunting system." Wildl. Soc. Bull. 15:599-602.
- Decker, D. J., P. D. Curtis, M. E. Richmond, R. J. Stout, and C. A. Loker. 1993. Human dimensions of contraception in wildlife management. Proc. Symposium on Contraception in Wildlife Management (in press).
- Decker, D. J. and K. G. Purdy. 1988. Toward a concept of wildlife acceptance capacity in wildlife management. Wildl. Soc. Bull. 16(1):53-57.
- Dvorchak, R. 1991. Bambi boom: across the U.S., deer proliferation brings problems. Jefferson City Post Tribune, December 31.
- Ellingwood, M. R. and S. L. Caturano. 1988. An evaluation of deer management options. Connecticut Dept. of Environ. Protection, Wildlife Bureau and U.S. Fish and Wildlife Service. 12p.

- Hahn, A. J. 1988. Resolving public issues and concerns through policy education. Cornell Coop. Ext. Inf. Bull. 214, Ithaca, N.Y. 32p.
- Hall, A. 1991. Gentle grazers or costly pests? Wisconsin State Journal, November 17.
- Hanback, M. and C. Blumig. 1993. Now it's deer on the pill. Outdoor Life 192(1):68-69, 90-93.
- Hauber, J. 1993. White-tailed deer management in the town of Irondequoit and Durand Eastman Park. New York State Department of Environmental Conservation, Avon, N.Y. 11p. + app.
- Horkel, J. D. 1993. Fish and wildlife agency involvement with volunteer monitoring projects is an effective way to maintain fish and wildlife values. Northeast Fish and Wildlife Conference (Abstracts) 49:112.
- Irondequoit Deer Action Committee. 1992. Setting the record straight: a rebuttle of the "minority report." Irondequoit Deer Action Committee, Rochester, NY. 21p. (typescript)
- Johnson, R. 1993. When critters get way too common, better watch out. Wall Street Journal, February 9.
- Jones, T. 1992. Metro deer kill fulfills goal, but another one might be needed. Minneapolis Star Tribune, June 21.
- Kuser, J.E., and J.E. Applegate. 1986. Princeton township: the history of a non-discharge ordinance's effect on deer and people. Paper presented at the Northeast Section-The Wildlife Society Meeting, Hartford, CT, May.
- McAninch, J.B., and J.M. Parker. 1991. Urban deer management programs: a facilitated approach. Trans. North Amer. Wildl. and Nat. Resour. Conf. 56:428-436.
- McCarthy, M. 1993. Amherst, deer population locked on collision course. The Buffalo News, March 28.
- McMullin, S.L., and L.A. Nielsen. 1991. Resolution of natural resource allocation conflicts through effective public involvement. Policy Studies Journal 19(3-4):553-559.
- Nelson, D. 1992. Citizen task forces on deer management: a case study. Northeast Wildlife 49:92-96.
- Povilitis, T. 1989. Living with deer. HSUS News (fall), p. 24-27.
- Reeves, R. 1993. The Bambi dilemma (North Haven, N.Y.). San Francisco Chronicle, September 7.
- Samuel, D. 1992. Urban deer problems. The Conservationist 47(1):40-44.

- Smith, V. and G. Livadas. 1993. Eckert target of possible pipe bomb. Rochester Democrat and Chronicle, May 14.
- Specter, M. 1992. Whose woods? hunter vs. homeowner. New York Times, November 29.
- SPSS, Inc. 1990. SPSS reference guide. SPSS, Inc., Chicago, Ill. 949p.
- Stout, R. J., D. J. Decker, B. A. Knuth, J. C. Proud, and D. H. Nelson. 1993 (in press). Public involvement in deer management decision-making: comparison of three Approaches for setting deer population objectives. Hum. Dimensions Res. Unit Publ., Dep. Nat. Resour., Cornell Univ., Ithaca, N.Y.
- Stout, R. J. and B. A. Knuth. 1994 (in preparation). Attitudes and opinions of suburban residents about managing a local deer population. Hum. Dimensions Res. Unit Publ., Dep. Nat. Resour., Cornell Univ., Ithaca, N.Y.
- Stout, R. J., D. J. Decker, and B. A. Knuth. 1992. Evaluating citizen participation: creating communication partnerships that work. Trans. North Am. Wildl. and Nat. Res. Conf. 57:136-140.
- Susskind, L. and J. Cruikshank. 1987. Breaking the impasse: consensual approaches to resolving public disputes. Basic Books, Inc., New York. 276p.
- Witham, J. H. 1991. Reduction of local deer herd at Rock Cut State Park, Winnebago County (contract completion report). Illinois Dept. of Conservation, Div. Wildl. Resour. 41p. + app.



### APPENDIX A

#### Examples of Proposals for Managing Deer in Irondequoit



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# Town Proposes Trap and Transfer Deer Control

The Irondequoit Town Board unanimously passed a resolution calling for Monroe County to authorize a plan to trap and transfer deer from 965 Acre Durand Eastman Park.

An estimated 500 deer roam freely through the park and spill over areas wreaking havoc on the park's eco system, and residential shrubs, as well as posing a threat to motorists, and being a potential target for Lyme tick disease.

Under the plan, a private firm, in concert with the County Parks Dept., would set up feeding stations, large woven wire trapping pens, and transfer chutes, so as to cart away the deer to a breeding farm where they would produce a new generation of farm fed animals for the whitetail venison market.

The deer population would be reduced by 50 per cent the first

year. The firm would continue to monitor the herd as to its size and health. Trap and transfer as a commercial venture defrays the cost.

The Irondequoit Deer Action Committee (IDAC) and Monroe County Parks officials are in accord with the plan.

Supervisor Fred Lapple stated that Local government has reached a consensus on a specific safe, humane, efficient plan, and that the New York State Dept. of Environmental Conservation (DEC) should be lobbied to support the plan. The

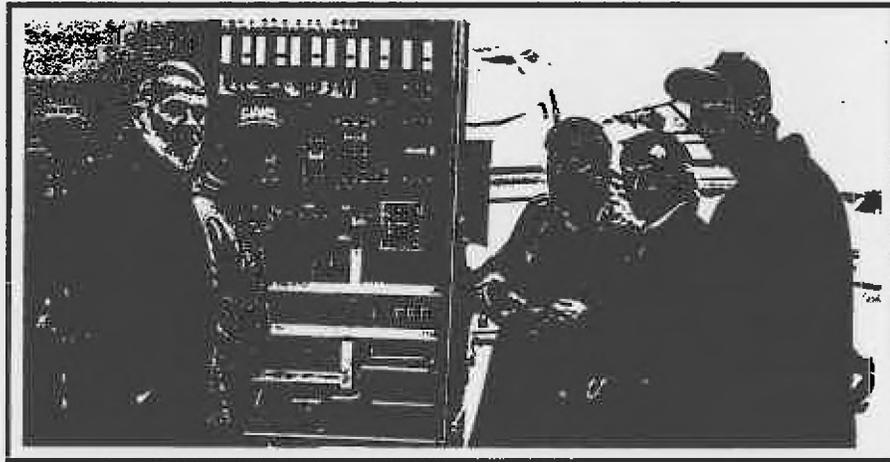
DEC has veto power over any option.

Lapple urged residents to call their state legislators asking them to put pressure on the DEC to respect the decision made by the local community.

*Please Come:*  
**Open House**  
*Irondequoit Community/  
Senior Center*  
  
May 4 & 5  
Noon to 4:00 p.m.



John J. Luken, of 146 Thomas Ave., has been appointed to fill the vacancy on Irondequoit Town Board. He has served as councilman from 1980 to 1984 and as a member of the Planning Board and Zoning Commission in 1990. He is a thirty year veteran of the Eastman Kodak Company where he is employed as a financial planner. John Luken has resided in Irondequoit for twenty years with his wife Ellen, and their four children, Mary Ellen, Regina, Robert, and Gerard.



In order to minimize damages caused by sewer backups, the Town of Irondequoit has been upgrading its wastewater pump stations with state of the art electronic alarm and control systems. Shown here testing the Newport Road pump station control panel is Town Supervisor Fredrick W. Lapple (center with phone). Assisting him are (l to r) Stationary Equipment Foreman Edward J. Peters, Maintenance Mechanic Timothy J. Denk, Commissioner of Public Works Bradley B. Upson, and working Foreman William H. Roberts.

## ***Irondequoit***

TOWN HALL REPORT  
Spring 1991

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# Irondequoit<sup>74</sup> Deer Action Committee

P.O. Box 67804 • Rochester, N.Y. 14617

## RECOMMENDATIONS FOR ALLEVIATING THE DEER PROBLEM IN DURAND EASTMAN PARK AND THE TOWN OF IRONDEQUOIT

Presented June 19, 1991

The Irondequoit Deer Action Committee was formed in July of 1990 to address the problems caused by deer in Durand Eastman Park and surrounding Irondequoit. The ecology of our prized County park was being seriously altered, deer/car collisions were frequent on our roads, residents were increasingly complaining about destruction to landscape plantings and commercial gardens, and several buildings had been damaged by deer smashing through windows. It had become obvious that the deer were not simply a problem for a handful of "shrub tenders" living on the periphery of the park, but were a concern for all Monroe County residents.

Representatives of the Town, the County and the Department of Environmental Conservation had discussed the "Irondequoit" deer problem for over fifteen years, but were no closer to consensus than on the day the issue first was raised. DEC, which controls the disposition of New York State deer, had offered their solution: to allow bow hunting in the park and the Town. Neither Town nor County agreed; there were too many unanswered questions about public safety to make this solution acceptable. The situation was at an impasse.

Our members, now comprising over 600 concerned citizens, believed IDAC could assist the agencies involved with the search for an acceptable solution to this obviously complex problem. We felt that citizens banded together could demonstrate the level of community concern, and their political strength could force action. IDAC began with no preconceived notion of where our studies would take us, but with a strong belief that no action was not an option.

Since the destructiveness of deer is such a serious problem, why has it been so difficult to decide what to do? If this were a problem caused by rats or vandals, solutions would be demanded by the general public and implemented quickly. However, deer add another dimension. They are gentle, graceful, wild creatures which have been popularized by television and movies. IDAC members respect and admire these animals, but we firmly believe that deer cannot be allowed to destroy the ecology upon which other animals and plants depend.

Soon after we began examining the problem, it became apparent to us that a reduction in the number of deer would be a necessary part of any successful solution. Passive protection like fences and repellents may shield personal plantings, but they force hungry deer to wander ever farther in search of food. Swareflex reflectors and deer whistles may help to reduce deer/car collisions on roadways. But fences, repellents, whistles and reflectors do nothing for the ecology of the park and the open spaces within our Town. It is our commitment to ecology which we highlighted by holding our press conference at Camp Eastman, a typically overbrowsed Irondequoit woodland.

IDAC has been diligent in researching all possible deer reduction methods. IDAC members met with top Town and County officials and with a representative of DEC. We have talked to wildlife biologists from all over the country. We have conversed with conservation departments in seven other states. We gained input from hunters and animal rights representatives, conservationists, university researchers, and many New York State officials.

Throughout our research, we have been struck by the lack of uniqueness of our situation. Deer are proliferating alarmingly in much of the United States, both in urban/suburban and rural situations. Other governments are facing the same tough decisions as is Monroe County. In many areas, programs are in effect to reduce deer numbers, often in non-traditional ways, and mostly with the support, direction, and active participation of their state conservation departments.

Our goal was to make specific recommendations for alleviation of the deer problem and to assist with the implementation of any such programs. Today's meetings mark the beginning of this phase.

#### Evaluation

IDAC used these criteria for evaluating methods for deer population reduction:

- \* safety to homeowners and park visitors
- \* humaneness to the deer
- \* effectiveness in alleviating the problem
- \* timeliness of implementation
- \* reasonable cost to the taxpayer.

The following methods were judged unacceptable.

1. Hunting

IDAC does not accept DEC's proposal for a bow hunt in Durand Eastman Park and the Town of Irondequoit. An open hunt would attract a large number of hunters. The park is too accessible to the public and the town too developed to ensure public safety. Although IDAC is willing to accept DEC's position that a greatly restricted hunt might be able to be conducted safely, one with a short season and with specially qualified marksmen, we do not accept their assertion that such a hunt would be effective. Bow hunters harvest too few deer. Public sentiment on the safety issue may be insurmountable. There also is a public perception that bow hunting may be inhumane.

IDAC believes that any hunt in the park would serve to exacerbate problems faced by the Town. Deer driven from the park by hunters would eat even more private plantings and cross more roads than they do right now. At least temporarily, the problem for Irondequoit would worsen while the deer population in the park would not be diminished significantly.

Hunting for sport may be an acceptable pursuit in other circumstances, but it is not acceptable here. This is not a sporting opportunity. The purpose is solely to reduce the population of deer and the problems they cause as quickly, humanely and efficiently as possible.

DEC has steadfastly stated that hunting is the only possible answer to this problem. However, IDAC has learned that DEC can issue permits "to take any wildlife at any time whenever it becomes a

nuisance, destructive to public or private property, or a threat to the public health or welfare. Wildlife so taken shall be disposed of as the department may direct." Further, the word "take" is defined as including "pursuing, shooting, hunting, killing, capturing, trapping, snaring and netting." It would seem that no change in State law is required to allow approaches other than hunting.

## 2. Trap and Transfer to the Wild

The traditional technique of tranquilizing and transporting deer to a new location is extremely expensive, often exceeding \$1,000 per relocated animal, and results in up to 50% losses. New techniques have been developed which are more effective with very low mortality. However, there is no place to take large numbers of deer. Deer are proliferating throughout New York, and DEC officials worry that they are losing control of the size of the deer herd state-wide.

## 3. Euthanize and Cremate

We reject the proposal of the Humane Society of Rochester and Monroe County to overtranquilize deer with dart guns. The meat would not be fit for human consumption, so the carcasses would have to be destroyed. The Humane Society has volunteered to cremate them at no cost to the public.

This method seems to IDAC an incredible waste of a public resource. Humane methods exist for killing deer which do not involve spoiling the meat. "Competent shooting," for instance, has been declared a

humane method by the American Veterinary Medical Association Panel on Euthanasia (1986).

In addition, our research indicates that using the drug Rompin as proposed by the Humane Society would not work. The manufacturers of Rompin, and several veterinarians, have told us that the dose carried in a dart would not kill a deer, but only immobilize or anesthetize it. This process can take up to fifteen minutes. Darting can be painful to the animal. The deer would have to be tracked and then euthanized with an intravenous lethal injection. In practice, this method seems hardly as humane as was intended and the costs would far exceed the Humane Society estimates.

#### 4. Deer Contraception

IDAC rejects deer contraception. Population reduction by this method would depend solely upon attrition. This is essentially equivalent to no action. Furthermore, scientists involved in contraception research tell IDAC that this approach is not intended to reduce populations of deer, merely to control them at acceptable levels. The deer population would have to be reduced substantially by other means before treatment could begin. This leaves the community facing the same question which IDAC has been addressing all along; what is the best way to reduce the size of the deer herd?

Contraception may someday be suitable for long term herd stabilization. However, deer contraception technology is in only the research phase. It will be several years before an easily administered, reliable deer contraceptive system is available for use with wild, free-roaming herds. It is essential that, by then,

the deer population be at a level consistent with the natural ecology and the realities of suburban coexistence.

#### Acceptable Methods

IDAC is recommending three methods of deer population reduction. They can be used singly or in combination, and are suitable for both the County and the Town. All would attract deer to designated bait stations, focusing deer reduction activities in specific, easily monitored locations. Our recommendations are as follows:

##### 1. Trap and Transfer to Deer Farms

Two New York deer farmers, licensed by DEC to raise white-tailed deer, have proposed to Monroe County that they be allowed to trap and remove the deer to farms to serve as breeding stock for an eventual venison industry. The progeny of these deer would be slaughtered humanely at some future date. The technique for this trap and transfer does not involve tranquilizers and has been employed successfully in New Jersey by these same experts with few losses of deer. (Ironically, the New Jersey deer are being relocated to deer farms in New York State.) There would be a one-time cost to the county for construction of traps, and ongoing cost of the feed to be used as bait. The transfer costs would be borne by the deer farmers. These experts are available and willing. The method is relatively inexpensive and has proved effective.

DEC has indicated that there might be a legal impediment to donating the deer to private enterprise, that this would be "privatizing a public resource." However, despite repeated requests from IDAC, the Monroe County Parks Department, and State Division of Wildlife, DEC

has yet to cite any law to support this position. There are precedents in other ventures such as commercial fishing, trapping, and logging which indicate that this may be feasible.

IDAC does have concerns about possible vandalism to the traps. If the need arises to monitor them, the cost of the program would increase.

## 2. Trap and Transfer to a Slaughterhouse and Donate the Meat to Charity

In discussions with the Monroe County Parks Department, DEC has indicated willingness to entertain a proposal to allow the deer to be trapped as above, and then slaughtered for food to be donated to the poor, to zoos, or to the penal system. This proposal does not privatize the deer. Rather, it uses them for the public good. However, the cost to the public would be significantly higher than transfer to deer farms, for the deer farmers would have to be paid to do the trap and transfer, and there would be costs associated with dressing the meat.

Although donating venison to charity has not been done in New York, a representative of the Agriculture and Markets Department in Albany indicated to IDAC that such a plan probably could be arranged if the protocols were carefully drafted and followed. It is worthy of note that similar venison donations are currently occurring in Illinois, Massachusetts, and Minnesota. New York can benefit from the design of their regulations. IDAC has shared information about these programs with Albany at their request.

### 3. Bait and Shoot

By far the most straight-forward approach to reducing the deer population is to bait the deer in to selected, sheltered bait stations, and then shoot them from elevated stands. This method has proved to be extremely safe, humane and cost effective in Wisconsin, Illinois, and Minnesota, where deer overpopulation has become a problem in situations similar to ours.

So far, DEC has rejected this proposal as not being sporting. It is worth reiterating that sport is not the issue here, rather it is finding safe and effective methods of deer population reduction.

IDAC will support this method only if DEC is directly involved with organization and supervision. Since DEC controls the state's deer, do they not have an obligation to be leaders in controlling their numbers? DEC may not have sufficient personnel at present, but agents could be deputized by DEC, with financial assistance from the Town and the County. Costs for hiring and supervising agents could be partially offset by allowing them to keep a designated number of their kill. Excess deer would be donated to the needy.

### Summary

IDAC believes it is essential that Monroe County and the Town of Irondequoit draft and implement deer population reduction plans to alleviate the problems caused by too many deer. The programs must begin this fall in order to minimize further damage to the park and Town ecology, danger to motorists, and additional destruction of residential and commercial plantings.

The unexpected abundance of deer browse following the March ice storm may have provided temporary relief from deer pressure.

However, we must not be lulled into thinking this gives us longer to make a decision. The increased food available to the deer now will merely produce an increase in the number of fawns next spring.

IDAC recognizes that no plan will be acceptable to everyone.

However, we believe that the conclusions, which we are presenting after ten months of intensive research, best meet our criteria of effectiveness, humanness, timeliness, safety, and cost. They represent the culmination of nearly two decades of discussion.

There is nothing to be gained and much to be lost if we wait any longer to start removing deer.

IDAC recommends three possible approaches, to be used singly or in combination:

- \* trap and transfer to deer farms
- \* trap and slaughter
- \* bait and shoot by DEC agents.

Although none of these solutions is currently sanctioned by DEC, only internal policies need be altered to permit use of these methods of deer population reduction which are appropriate for a suburban setting.

IDAC recognizes that population reduction goals cannot be accomplished in only one year. Repeated annual application of these methods may be necessary for three to five years. To monitor progress, there must be regular evaluation of success through an annual deer census, deer/car collision data, numbers of homeowner complaints, and documented park regeneration.

IDAC recommends that continued attention be given to research on contraception so that, when reasonable deer population levels are reached and the technology is available, our area can become a site for deer contraceptive studies. This would eliminate the need to continue removing deer in order to maintain satisfactory population levels. However, it is important to note that contraception must be administered on an ongoing, annual basis, with a significant annual cost.

Now our committee begins the really hard work. We must ensure acceptance of our recommendations and assist with the implementation of deer reduction plans. Of course, we will continue to acquire information about deer problems and population control methods from other parts of the country, and to make this information available to the DEC, the governing bodies, the press, and the public as we have been doing throughout the last ten months.



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266-2663

### IRONDEQUOIT DEER POPULATION PROPOSAL OUTLINE

The six-point plan includes the following:

- I. PUBLIC SAFETY - immediate implementation
  - Swareflex reflectors
  - Reduced and enforced speed limits
  - More, better deer-crossing signs
  - Fencing
  - Cutting back understorey
  - Public awareness media campaign

- II. DEER MANAGEMENT PLAN
  - DEER POPULATION STUDY - Three year fact-finding program
  - Census-taking - aerial, infrared scanning techniques (cutting edge technology)
  - Migration patterns
  - Reproductive rates
  - Neo-natal mortality

### WILDLIFE CONTRACEPTION - Immunocontraception Scientific study as part of data-gathering/research

- III. VEGETATION STUDY AND EDUCATION PROGRAMS
  - A. Park - transect studies to determine vegetative damage
  - B. Gardens - workshops, public information packets, (including information on organic repellents, fencing, deer-resistant plant materials)

- IV. WILDLIFE CONTRACEPTION - Immunocontraception  
Based on study results, implementation as deer population management tool

- V. CREATIVE FINANCING - to supplement government funding of individual portions of plan, such as Swareflex reflectors, deer population study, vegetation study, public awareness campaign

- Private funds, such as:
  - Corporate sponsors
  - Private fundraising
  - Donations of materials and services
  - Venture capital

### VI. "CULTURAL CARRYING CAPACITY"

- Study to be conducted by professional, non-biased organization
- after public safety measures implemented
- after homeowner garden program implemented
- after study
- "attitude adjustment"
- Supplementary/Diversionary Feeding

Note: 20 deer/square mile (average) has been used to determine target population based on "carrying capacity." However, this number applies when a population is being managed for hunting (buck harvests).

- optimizes a sustained yield of deer in best condition
- provides proper nutrition so deer are not "wasted" to winter
- maintains high productivity rate in the does
- provides enough food for antler growth (trophy racks)

**NOTE:** Although this outline was proposed in January, 1993 after the CTF recommendations were made, this outline reflects the position of the Monroe County Alliance for Wildlife Protection about deer management in Irondequoit.



**NYS DEER MANAGEMENT UNIT 96****CITIZEN TASK FORCE****Meeting #1: January 13, 1992**Agenda

- 1) Registration
- 2) Introduction and Purpose of the Task Force
  - Paul Curtis, Extension Associate, Department of Natural Resources, Cornell Cooperative Extension, Ithaca

Break for Dinner, Compliments of the Bureau of Wildlife

- 3) The Role of the DMU 96 Citizen Task Force In Deer Management Decisions
  - Larry Myers, Regional Wildlife Manager, Bureau of Wildlife, Department of Environmental Conservation, Avon
- 4) Concerns About Deer in Monroe County Parks
  - Thomas Pollack, Monroe County Department of Parks, Rochester
- 5) Deer-Vehicle Accidents in Monroe County
  - Andrew Frate, Deputy, Monroe County Sheriff's Department, Rochester
- 6) Incidence of and Potential for Deer-related Diseases in Monroe County
  - Frank Mirabella, Senior Sanitarian, Monroe County Department of Health, Rochester

Break

- 7) Deer Management in DMU 96: Taking a Look at the Deer Population
  - Jim Fodge, Senior Wildlife Biologist, Bureau of Wildlife, Department of Environmental Conservation
- 8) Panel Discussion: Alternatives and Consequences of Various Deer Population Levels--Biological, Social, and Economic Impacts and Administrative Constraints
  - Questions and discussion by task force members
- 9) Task Force Assignment--Due Next Meeting
  - Paul Curtis
- 10) Task Force Publicity--Discussion of Publicizing Names of Task Force Members via Media News Releases
  - Paul Curtis
- 11) Cornell University Evaluation Project
  - Becky Stout, Research Support Specialist, Department of Natural Resources, Human Dimensions Research Unit, Ithaca

Adjourn by 9:30 pm

**Next Meeting: February 18 at 7 pm (no dinner)**

TASK FORCE MEMBER NAME: \_\_\_\_\_

STAKEHOLDER INTEREST YOU REFLECT: \_\_\_\_\_

**NEW YORK STATE DEER MANAGEMENT UNIT 96**

**CITIZEN TASK FORCE**

**Guide for Task Force Members Gathering Stakeholder Opinions**

**DIRECTIONS:** The purpose of this guide is to suggest a way to collect opinions from stakeholders. At the next meeting, you will be asked to discuss and summarize the information you collected from stakeholders who share your interests. Read the following list before contacting stakeholders.

(1) To obtain the widest variety of opinions, try to contact (either by telephone or in person) at least 10 people.

(2) Before contacting a stakeholder, try to determine if they reside, own property or have participated in outdoor recreation activities within the DMU. Contact only those stakeholders which meet these requirements.

If people who are not stakeholders in the DMU contact you, listen to their comments, but explain that recommendations from this task force will have little affect on the deer population in their area.

(3) If a DMU stakeholder reflecting another interest contacts you, record his/her comments separately from those of your stakeholder interest. Relay the comments to the task force member reflecting that stakeholder interest, or share these comments with the task force as additional information to consider.

(4) When contacting a stakeholder for their opinions, explain the purpose of the task force and the interests reflected on the task force. Write how you would describe the task force's purpose in the space below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- (5) The following questions ask about stakeholders' preferences for a deer population level. To best reflect your stakeholders' views, consciously avoid asking questions in a leading or value-laden manner. Ask the questions using the same words and tone of voice each time you ask someone's opinion. Act unbiased and open-minded to the person's comments.
- (a) In your opinion, is this year's deer herd in your area increasing, decreasing or stable?
- increasing  
 decreasing  
 stable  
 don't know
- (b) In your opinion, is this year's deer herd too high, too low or about right?
- too high  
 too low  
 about right  
 don't know
- (c) Over the next 5 years, do you think the deer herd in your area should increase, decrease or remain stable?
- increase . . . . how much?  %  
 decrease . . . . how much?  %  
 stable  
 don't know
- (d) Why do you think the deer herd should (increase, decrease, remain stable)?  
 (((NOTE: Use the stakeholder's response given in (c) to complete the sentence.)))
- (6) If you think another question would better reflect your stakeholder interest, discuss with the facilitator the possibility of adding or changing a question.
- (7) Before the second meeting, think about and reflect upon the opinions you gathered. Make an assessment of what deer population level you think your stakeholders would recommend.
- (8) When summarizing your findings to the task force, describe generally how you contacted people, who you contacted, the responses you received, and your recommendation in consideration of these opinions. Be prepared to communicate this in about a 5-7 minute presentation.

**NEW YORK STATE DEER MANAGEMENT UNIT 96**  
**CITIZEN TASK FORCE**  
**Worksheet for Collecting Stakeholder Opinions**

**DIRECTIONS:** Complete one worksheet for each stakeholder you contact. Ask each stakeholder questions (a) through (d).

Name, address and/or telephone number of person contacted: \_\_\_\_\_

---

(a) In your opinion, is this year's deer herd in your area increasing, decreasing or stable?

- \_\_\_\_\_ increasing  
 \_\_\_\_\_ decreasing  
 \_\_\_\_\_ stable  
 \_\_\_\_\_ don't know

(b) In your opinion, is this year's deer herd in your area too high, too low or about right?

- \_\_\_\_\_ too high  
 \_\_\_\_\_ too low  
 \_\_\_\_\_ about right  
 \_\_\_\_\_ don't know

(c) Over the next 5 years, do you think the deer herd in your area should increase, decrease or remain stable?

- \_\_\_\_\_ increase . . . . how much? \_\_\_\_\_ %  
 \_\_\_\_\_ decrease . . . . how much? \_\_\_\_\_ %  
 \_\_\_\_\_ remain stable  
 \_\_\_\_\_ don't know

(d) Why do you think the deer herd should (increase, decrease, remain stable)?  
 (((NOTE: Use the stakeholder's response given in (c) to complete the sentence.)))

From your discussion, summarize the stakeholder interests of the person contacted (e.g., dairy farmer, nonhunter, had a deer-car accident a month ago):

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**DEER MANAGEMENT UNIT 96**

2/18/92

**TASK FORCE SUMMARY NOTES**

Attendance: S. Baker, R. Blevins, J. Carpenter, P. Curtis, J. Fodge, D. Habes, J. Hauber, N. Holmes, J. Krebs, B. Lehman, S. Mooberry, L. Myers, D. Ophardt, T. Pollock, J. Proud, T. Rockwell, J. Smitley, B. Stout, and A. Van Dam

There were two initial questions prior to individual reports. One item was that last meeting's data for vehicle accidents was questioned; some say the numbers are too high, others feel they may be accurate or even too low.

A second inquiry regarded a deer management public perception questionnaire was sent to a sample of DMU 96 residents. This survey is related to the committee activities, but it is different.

Following a report from each member on their constituent opinions, the task force discussed various issues and produced recommendations.

Concerns were raised about the ability of the committee to be useful in solving the problems that exist. One person felt most people on the committee are concerned about property damage and it's biased. Another thought the DEC has no authority to do something about the problem in Irondequoit. First, resolve who has authority to do something so that we won't be "spinning our wheels."

It was decided that the "problem" of deer populations exists in Irondequoit and basically in the northern part of DMU 96. The rest of the unit has a stable population (and the ability to use hunting as a management tool).

There was an opinion that if Irondequoit Park was singled out from DMU, a second task force should be made consisting of only Irondequoit residents. Another felt the current one was okay and it was agreed that the park was a County park and people that enjoy and use the park are at least county wide.

There was considerable discussion on the need for data on how many deer currently exist in DMU 96 and how healthy they are. A better decision can be made if the current health of the deer can be documented.

Short and long-term goals were discussed. The idea would be that the short-term goal (< 5 years) would be different for the north and south sections of DMU 96, and over a long period, the population would eventually be able to remain relatively stable throughout the unit.

There was an opinion that the task force's perception of their desired deer population would not be valuable without statistics and facts to support their opinion. Various methods of how to achieve data in a cost efficient way was discussed, including a plan to train and utilize volunteers from Helmer Nature Center to get information from deer/car accidents. There was also the opinion that the task force needs to move ahead and that decisions could be made at this time with the limited data that exists while planning to enhance data later.

While some felt the need for absolute numbers of deer was necessary, others felt numbers were not necessary to make a decision, although some criteria is needed to measure if any effort is effective.

There was concern about the general public's perception or knowledge of deer related issues as well as the task force's activities in assisting DEC in addressing those issues. Opinions exist that, if the public were more knowledgeable about deer accident statistics, deer habitat, biology and other things such as the task force has been exposed to, then a decision to address the deer population problem in Irondequoit would be more easily supported by the residents and their affiliate organizations.

### **Consensus Summary of 02/18/92 Meeting**

1. **DMU 96 will be divided into north and south parts, north being all of Irondequoit and points west north of Route 104.**
2. **DMU 96 population recommendations will be divided into short (< 5 years) and long-term goals.**
3. **In the DMU 96 south section, it was agreed for the short-term that the deer population would remain between stable and a maximum 5% decrease.**

**Respectfully submitted,**

**Theresa Rockwell, Recorder  
NYS DEC  
Citizen Participation Specialist**

**Citizen Task Force DMU 96, Greater Rochester Area  
Meeting Minutes- 18 February 1992  
Monroe County CCE Office, 249 Highland Ave.**

Agenda Items:

1. Summary of Stakeholder Contacts:

<u>CTF Member</u>	<u>Stakeholder Group</u>	<u>% Popn Change</u>	<u>Primary Concerns</u>
Susan Mooberry Helmer Nature Ctr.	Environmental Education	50-75% decrease (minority- 20% stable population)	Habitat destruction, personal injury
Jim Carpenter Archery Instructor	Homeowners and Bowhunters	5-80% decrease	Property and habitat destruction
Rick Blevins Brighton/ Meadowbrook Homeowners Assoc.	Homeowners	stable	Stability of nature, health of deer
Bob Lehman Monroe Co. Farm Bureau	Grain Farmers	10-50% decrease	Crop damage
Don Ophardt WNY Apple & Cherry Growers	Fruit Growers	30-50% decrease	Crop damage, financial loss
Sandy Baker Monroe Co. Alliance for Wildl. Protection	Outdoor & Wildlife Enthusiasts	stable	Stability of nature
Jeff Smitley Irondequoit Deer Action Committee	Homeowners with Deer Damage	50-75% decrease	Property damage, decreasing plant diversity
John Krebs NYS Forest Owners Assoc.	Forest and Homeowners	stable	FOA in DMU 96 own forests elsewhere, homeowners contacted felt the level was fine.
Dick Habes Organized Sportsmen	Sport and Hunting Interests	20-50% decrease	Health of deer, deer- car collisions
Ann VanDarn Irondequoit Resident & Master Gardener	Gardeners	50-75% decrease	Car accidents, ecosystem damage

2. Discussion:

a. Short (1-4 years) vs. Long (5-10 years) Term Deer Population Objectives-

Short Term:

1. Reduce deer population
2. Increase data gathering
3. Look at parts of DMU 96 separately
4. Types of information needed
  - a. Car accidents (reliable figures)
  - b. Habitat impacts
  - c. Deer physical condition
  - d. Aerial census
5. Redefine DMU 96

Long Term:

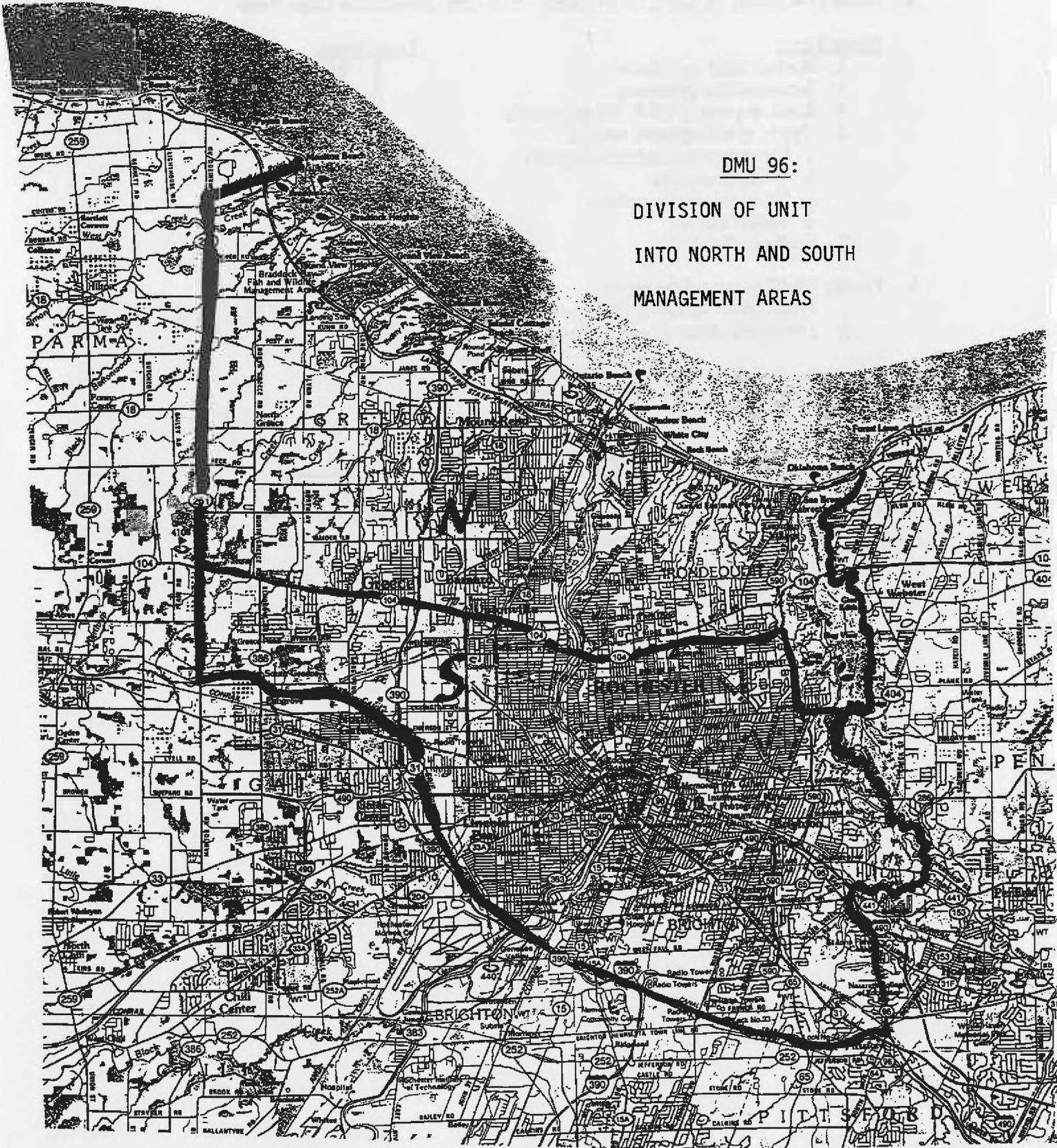
1. Reduce population
2. Maintain lowered numbers
3. Look at parts of DMU 96 separately

b. Divide DMU 96 into Two Parts-

1. DMU 96N- All of Irondequoit, everything west of Irondequoit north of Rt. 104
2. DMU96S- Rest of unit (primarily south of Rt. 104)

c. Recommended Deer Population Objectives-

Objective Type	DMU 96 Location	
	North	South
Short-term	??	no change/5% decrease
Long-term	??	??



DMU 96:

DIVISION OF UNIT  
INTO NORTH AND SOUTH  
MANAGEMENT AREAS

**Citizen Task Force DMU 96, Greater Rochester Area  
Task Force Summary- 17 March 1992**

**Attendance:** S. Baker, R. Blevins, J. Carpenter, P. Curtis, J. Fodge, M. Hall, J. Hauber, N. Holmes, J. Krebs, C. Michaloski, S. Mooberry, L. Myers, D. Ophardt, T. Pollock, J. Proud, D. Ruffell, J. Smitley, B. Stout, A. Van Dam

**Agenda Items:**

1. **Review of February 18 Meeting Summary-**  
Three changes were made in the wording of the summary:
  - a. 1st paragraph, 2nd sentence change "questioned" to "corrected"
  - b. 6th paragraph, 1st sentence change "Irondequoit" to "Durand Eastman"
  - c. 9th paragraph, 2nd sentence insert "on the health of the herd" after the word information
2. **Dates for Next 3 Meetings-** 23 April, 12 May, 23 June (7-9:30 pm at CCE Office)
3. **Discussion-**
  - a. Review of helicopter census, J. Hauber- consulted and flew with John Clem (Ohio DNR) and Tom Pollock (Monroe Co. Parks). Flight occurred on Monday, 15 March under good weather conditions. Flight lasted approx. 2 hours, and all appropriate habitats in Town of Irondequoit were surveyed. Total of 178 deer were seen (Irondequoit Bay- 9, Durand-Eastman- 118, Flats/Genessee River- 32, northeast Thomas Ave.- 18). Concern was expressed that an unknown number of deer were missed due to irregular topography and conifer cover. The figure of 178 is an index, and should be considered a minimum number of deer present.
  - b. It was mentioned that deer herd size in Irondequoit may have stabilized, as similar numbers (81) car-killed deer were counted in 1990 and 1991. Public education was emphasized as a tool to reduce deer-car collisions rather than deer removals.
  - c. It was suggested that deer-carcass removals by Department of Transportation, combined with carcass tags issued by law enforcement agencies, would provide the best estimate of dead, car-killed deer.
  - d. A conservative approach for deer removals in the north part of DMU 96 was recommended to allow time for evaluation and public education.
4. **Recommended Deer Population Objectives-**
  - a. **Short-term, DMU 96 North:**
    1. Year 1- remove the number of deer equal to the best estimate of dead deer reported (carcass tags issued combined with DOT carcass removals); will total potentially 81 deer from Irondequoit, plus ?? from Greece
    2. Year 2- evaluate deer population indicators (deer/car collisions, vegetation damage, aerial census, deer physical condition, etc.) and double first-year's removals if observed impacts are insufficient
    3. Year 3- evaluate indicators as for year 2, triple first-year's removals if observed impacts are insufficient
    4. Years 4 & 5- continue to evaluate effects of deer removal, and adjust number to reach long-term goal of 20 to 25 deer per square mile of quality habitat
  - b. **Short-term, DMU 96 South:**
    1. Target either a stable or slight reduction in deer numbers during the next 5 years to reach the long-term goal of 20 to 25 deer per square mile of quality habitat
  - c. **Long-term, entire DMU 96:**
    1. Maintain a deer density of 20 to 25 deer per square mile of quality deer habitat
5. **Case Study Videotape: Rock Cut State Park Deer Management, Illinois**
  - a. Handout with executive summary of management project

**Citizen Task Force DMU 96, Greater Rochester Area  
Task Force Summary- 23 April 1992**

**Attendance:** S. Baker, R. Blevins, J. Carpenter, P. Curtis, J. Fodge, D. Habes, M. Hall, N. Holmes, D. Jordan, B. Knuth, J. Krebs, L. Myers, G. Pratt, J. Proud, M. Richmond, T. Rockwell, R. Schroder, J. Smitley, B. Stout, A. Van Dam

Agenda Items:

1. Review of March 17 Meeting-

P. Curtis distributed the meeting summary and requested that any corrections or changes be sent to him.

2. Guest Speaker- Dr. Milo Richmond, NY Cooperative Fish & Wildlife Research Unit, Cornell University, Ithaca

Dr. Richmond discussed potential deer management options outlined in the booklet by Ellingwood and Caturano (1988). The positive aspects of various strategies were emphasized before reviewing the shortcomings of each technique.

3. Figures for Deer Removals, Short-term, DMU 96 North- Larry Myers, NYSDEC

Larry Myers reviewed deer-car collision statistics from town and county police departments, and NYS Department of Transportation. The best estimates of "dead deer" resulting from motor vehicle accidents were 80 animals from the Town of Irondequoit, and 120-130 additional deer from the Town of Greece. Based on committee discussions during the last meeting, the target number of deer to be removed from DMU 96 North in the first year would be 200 animals.

4. Discussion of Options for Reaching Target Deer Removals, DMU 96 North-

Committee members reviewed the alternatives listed below, and agreed Options #2, #4, and #6 were not applicable for reaching the deer population objective. Discussion then focused on items #1, #3, #5, and #7. Although data in the above table are incomplete, committee members noted that missing information is available and agreed to provide the data. Consensus was reached that sharpshooting was the preferred option for short-term deer removal in the Town of Irondequoit. Task force members indicated the primary goal is to reduce deer numbers as safely, humanely, and as effeciently as possible. Providing recreational opportunity via sport hunting was not a primary concern. It was also noted that it may be difficult to attract sportsmen to a highly controlled and very controversial hunting situation. The changes required in local and state regulations also appeared to be insurmountable. Reproductive inhibition was the preferred long-term strategy when appropriate techniques become available.

Discussions then focused on the north portion of the Town of Greece, and Larry Myers indicated that it may be possible to reach the additional short-term deer removal goals by issuing extra antlerless hunting permits. Deer management options for the south portion of DMU 96 will be discussed at the May and/or June meetings.

<b>OPTION</b>	<b>BENEFITS OR COSTS PER DEER</b>	<b>WHO PAYS</b>	<b>HIDDEN COSTS</b>
1. Hunting	License fees	Hunter	Safety concerns Ethical considerations Regulations changes Political concerns DEC management Poor hunter participation Education needed
2. Passive Management			Vehicle accidents Increased insurance Quality of human life
3. Trapping Venison farm Sterilize Euthanize	\$200 to \$800	Farmer Local government	Survivorship of deer DEC permit approval Ethical considerations DEC management
4. Fencing or Repellents		Landowner	Site-specific application Effectiveness
5. Reproductive Inhibition		Local government	Effectiveness?? DEC management
6. Supplemental Feeding			
7. Sharpshooters	\$74 to \$235	Local government	DEC management

## DEER MANAGEMENT UNIT 96 TASK FORCE MEETING

### April 23, 1992 Meeting Summary

The agenda for tonight's meeting is to review options for suburban deer management and discuss potential recommendations for meeting the short-term goal for the north area of deer management unit (DMU) 96.

Dr. Mike Richmond of Cornell University was a guest speaker on "Options for Suburban Deer Management". Dr. Richmond presented the potential benefits and drawbacks for a list of deer management options. He followed an informational booklet supplied to Task Force members earlier.

Dr. Richmond began his overview by stating that suburban deer management problems are not uncommon. Members of the Task Force recently read examples of similar experiences. Generally, deer are appreciated early in the people/deer relationship. Then, after a few years, people choose to either live with the deer or deal with what is perceived as a "problem" because the deer encroach on a desired suburban lifestyle. Experts agree that there currently is no ideal method to deal with deer management situations. It is a complex issue.

**Option 1.** Manage through hunting. This is the only method that literature can point to as part of a viable solution.

**Option 2.** Passive or non-management approach. The benefit is that the cost is low, but the deer herd may exceed its carrying capacity due to a lack of predators.

**Option 3.** Trap and transfer or kill. The benefit here is that no injury from hunting could occur, which is a concern in a high density area, but the questions that remains is where do you put them?

Trapping and killing the animals would be beneficial if you can find a way to use the meat, but it is difficult to give the meat away in an acceptable form (i.e., without butchering it). The detriments to trapping is that the animals are wild and hard to handle and the cost is considerable.

**Option 4.** Build fences and use repellents. Barrier fences are preferred over a 5-9 strand electric fence. While fencing at least 8' tall can protect one's yard, the problem might increase at the neighbors (i.e., a few things protected might leave a lot in total disrepair). Tall fencing is viewed as unsightly and expensive. Repellents work well when weather conditions and diligence of application is insured, because the fate of all repellents is that they break down.

**Option 5.**

Reproductive inhibitors. Most reproductive inhibitors are aimed at the female rather than the male. Because female physiology is more complex, there are more ways to tamper with the reproductive process. The problem is getting the right amount of the drug to the deer, or the delivery system. Female blocking agents can prevent lactation or fertilization. Dr. Richmond says the lactation option is generally not acceptable because this means the food supply for fawns is cut off and they die. Fertilization prevention is acceptable and used with cattle and dogs, but cannot be done yet with wild animals.

The side effects for male sterilization are generally not acceptable (e.g., no antler growth or shedding and abnormal behavior such as tameness). The potential exists for a male reproductive inhibitor to work someday, but researchers still have a lot to learn. It could be a long-term solution.

**Option 6.**

Provide supplemental food to increase the carrying capacity. This effort may be effective for a year, but it would enhance the rate of growth rather than reduce it, creating a larger problem in the long term. Some individuals use this option to save their ornamentals.

**Option 7.**

Removal with sharp shooters. Sharp shooters can be hired with the approval by people and the local government. A use for the carcasses must be predetermined. The cost depends on the technique used. Safety concerns are high when many shooters are used. A smaller number may be more effective because of their flexibility to move. Sharp shooters might use bait stations, elevated or shooting stands. The use of rifles is most effective and humane.

A question of using sharp shooters to sterilize deer was raised. Sterilization in this manner is unavailable at this time, primarily due to the absence of a single dose drug. Shorter range shooting would be necessary and it would be difficult to protect (or target) vital areas.

**Option 8.**

Introduce predators. This is not an option for DMU 96 because predators would not stay in the area. The largest predator at this time is the car bumper.

- 3 -

Following the options discussion, Larry Myers, DEC, gave an updated report on deer collisions. The Task Force then identified information for a table of the options, their costs/revenues, who pays, and hidden costs. Hidden costs for most options included safety, public education, park regulation and administration. The comment was made that the authority to make a decision and the responsibility to pay and implement a decision must be balanced.

The issue of the sport of hunting versus a deer management action to reduce deer was a concern raised. If hunters are asked to participate in a deer management effort to reduce costs, it must be stressed that they are not hunting for sport.

Local government and legislators should understand that addressing the need for a deer population reduction is not a one time deal and management efforts will need to occur and be evaluated on a regular basis, perhaps annually.

After discussion of the various options, the Task Force arrived at a preferable deer management option that all members felt had potential for implementation. The Task Force preferred the use of lowest cost sharp shooters as the quickest, humane, and effective way to reach the short-term goal of reducing the herd in the Irondequoit portion of DMU 96 north where hunting is prohibited. For the long term, reproductive inhibition was preferred when available. The means of measuring the effectiveness of this deer management option will be the reduction in the number of deer-car accidents in the short term, and the quality of the habitat and the herd in the long term.

The Town of Greece, which permits archery hunting, constitutes the remainder of DMU 96 north. Archery hunting deer management permits will be increased to meet the herd reduction goal for this unit.

Submitted by  
Teresa Rockwell

**Citizen Task Force DMU 96, Greater Rochester Area  
Task Force Summary- 12 May, 1992**

Attendance: S. Baker, R. Blevins, J. Carpenter, P. Curtis, J. Fodge, D. Habes, M. Hall, N. Holmes, J. Krebs, B. Lauber, S. Mooberry, L. Myers, G. Parsons, J. Proud, T. Rockwell, R. Schroeder, J. Smitley, B. Stout, A. Van Dam

The Citizen Task Force (CTF) members interacted with a panel of government representatives with ties to deer management in DMU 96:

Monroe County Parks Department- Tom Pollock, Parks Supervisor  
Town of Brighton - Sandra Frankel, Supervisor  
Town of Greece - Peter Chechak, Police Officer  
NYSDEC - Larry Myers, Wildlife Manager  
Monroe County Legislature - Kevin Murray, Chair

Ellen Schnurr, City of Rochester Parks' representative, and Gary Parsons, Chief of the Bureau of Wildlife- NYSDEC, were also present as technical advisors. Fred Lapple, Town of Irondequoit Supervisor, was an invited panel participant, but did not attend the Task Force meeting.

Each of the panel members gave a 10 - 15 minute overview of their perspective of the deer problems existing in DMU 96. The following discussion with CTF members allowed for candid questions, answers and comments by all participants. This created an understanding and an appreciation for the complexity of environmental, social, political and legal aspects surrounding the deer population issue. A resolution may potentially occur through effective communication with all affected governmental agencies and citizens in the Greater Rochester area.

**PANEL MEMBER'S COMMENTS:**

Larry Myers - The problems that exist in DMU 96 North include: (1) stressed vegetation and deer habitat; (2) starvation and diminishing health of the deer; (3) safety to humans; and (4) property damage. What's needed is a solution generated through cooperation between town, county, and state government, and CTF representatives.

Tom Pollock - The county administration submitted a 20-page report on deer management options to the legislature last year. The county agrees that the deer population in Irondequoit Park is too high and some action should be taken. Recently, the county arranged for a helicopter deer-count in Irondequoit Park, which should help in solidifying action. Deer management problems are considered foremost as a safety issue. The county is not ruling out specific options, but some are politically more acceptable.

Kevin Murray - The County Legislature recognizes a deer population problem exists in DMU 96 North, particularly associated with Durand-Eastman Park, in the Town of Irondequoit. Finding a solution will be difficult at best. Factors that have affected resolution of the problem include: government turnover (i.e., a new county executive); a restrictive 1992 economy; an inconclusive deer census (which people feel underestimates actual numbers); and a host of diverse groups who lobby the legislature with differing opinions and perspectives. The county would like to see people in the community more unified in accepting a particular solution. The solution should be very low in cost and high in public safety. If there is a remote possibility someone will be hurt, it's likely the county would reject that solution.

Sandra Frankel - The deer population is growing in Brighton, and is perceived as a problem in portions of the town. At present, there is no specific deer management policy at the town level. Bow hunting is allowed in the town. Three primary areas (at or near parks) contribute to the growing deer population. One human death has occurred as the result of a deer-car collision. In addressing this issue, Brighton plans to study the patterns and trails of the deer and their relation to human activity. Reflectors could be installed along roadways, and perhaps deer whistles could be issued to residents in areas with a higher incidence of deer-car accidents.

Peter Chechak - Similar to Brighton, Greece is also in the early stages of developing a deer management policy. The town currently allows bow hunting. The town has asked the police department to research deer management issues. Thus, the viewpoints expressed today are from a police department perspective, and are not the official town policy. A deer population problem exists, and the greatest safety issue is deer-car collisions rather than bow hunting accidents. Much of the town is underdeveloped, but a master plan has targeted several new potential development sites. Bow hunting should continue to be part of the solution in Greece, but other alternatives may be necessary in the future. The CTF is a worthy activity and the Town of Brighton would like to continue to be involved.

Ellen Schnurr - Serving as a technical advisor, the City of Rochester Parks representative reiterated to the group that public safety issues rank high, and any action would be taken in cooperation with the city and county. The city has maintained an agreement with the county since the 1960s for managing city parks, and legislative changes would be necessary to institute a change in that agreement.

Gary Parsons - As a technical advisor, the Chief of the Bureau of Wildlife indicated the use of sharpshooting for removing deer from Irondequoit, proposed by the CTF, would have to undergo bureau review. It is likely the bureau would issue the necessary permits if sharpshooting was the recommended deer-removal option for Irondequoit.

Following the panel presentations, Sandy Baker distributed a 2-page letter and graph addressing deer fertility options that she had agreed to supply to the CTF at the last meeting.

#### PRIMARY TOPICS DISCUSSED:

Cost - CTF member maintained that program costs are an issue, however, the cost to individuals is high, especially if someone dies as a result of no action on the deer issue. The legal costs to the government in defending themselves against a family who has lost a loved one would force the deer issue to be handled quickly. The current no-action alternative is short-sighted.

Even if the CTF could arrive at a solution that all jurisdictions could agree was cost-effective and safe, the county legislature may not approve the solution if people in the community hold diametrically-opposing view points on what to do. The CTF needs to assist with forming a public consensus.

Bow Hunting - Of particular interest to the Towns of Brighton and Greece was the safety of bow hunting. Members of the CTF and DEC indicated bow hunting accidents are very rare, and most are self-inflicted. CTF members and government officials indicated that if a special bow hunt is used, the hunt should be supervised. Only hunters who have passed proficiency tests and attended orientation meetings should participate.

**Deer-Car Accidents and Costs** - Costs associated with maintaining a high deer population exist, whether it's damage to personal property or through increased insurance rates or taxes. If no action is taken to resolve the issue, then management of the deer herd will be accomplished via deer-car collisions. A public education campaign could emphasize that deer hunting accidents occur less frequently than deer-car collisions. The target number of deer-removals for DMU 96 recommended by the CTF is based on car kills because this is a tangible number.

**Feasibility of Options** - A lot of "what if" questions were discussed, including the political actions needed to make a specific deer-removal option work. Public education is needed to support any proposal. If many citizen and government groups are involved in a decision, and government officials are willing to tolerate some negative public reactions, then recommendations made by the CTF could be implemented.

Public perceptions about the safety of recreational bow hunting or sharpshooters must be taken into account when the CTF develops recommendations. Whether the fear of being in a bow hunting or firearm accident is real or perceived, public perceptions influence government decision-makers.

A question arose concerning local government leadership in proposing a solution to the deer problem in the Town of Irondequoit. Some people believed the leadership should come from Irondequoit, where the problem is most acute. Others indicated all community leaders should get together and provide team leadership. The Task Force was very frustrated that the Town of Irondequoit did not send a representative, and were concerned the town does not consider the deer population to be a major issue.

CTF members thanked the panel members and appreciated their openness during the deer management discussions.



10 July, 1992

Dear (CTF member):

This letter is to inform you that work continues behind the scenes to move towards a resolution of the deer management controversy in DMU 96. DEC staff have met on two occasions with officials from Monroe County and the Town of Irondequoit. Currently, it appears Monroe County will support the Task Force recommendations for a bait & shoot program within Durand-Eastman Park, however, Task Force members will need to finalize the draft recommendations by the end of August for presentation to the County Legislature in early September. I am working to make revisions suggested at our 23 June meeting, and distribute a revised copy to Task Force members in early August. I suggest we meet during late August (25th or 27th?) to finalize the recommendations and discuss an action plan.

DEC is also proposing a community education and involvement strategy for this fall (draft copy attached). We are interested in your thoughts and suggestions for modifying this plan. Would you please review the draft plan and return your comments by 1 August to Larry Myers, NYSDEC Region 8, 6274 E. Avon-Lima Rd., Avon, NY 14414 (or phone 607-226-2466).

Finally, several reporters have contacted me concerning the Task Force process. To reduce the spread of rumors and provide the community with up-to-date, factual information, DEC staff and I have prepared a news release for distribution to local media. Before sending it out, we would like to get your comments and revisions. I will be out of town attending meetings and continuing field work during the remainder of July. Please contact Larry Myers by 24 July if have any changes.

Keep the good work! Our efforts are starting to make impacts and changes in the Greater Rochester area.

Sincerely,

Paul D. Curtis, Ph.D.  
Extension Associate and  
Facilitator, DMU 96  
Citizen Task Force

cc: L. Myers, NYSDEC

3 August, 1992

Dear (CTF member):

I have completed revisions to the draft Task Force recommendations, and am sending this copy for your final review. Every effort has been made to accurately include your comments from our meeting on 23 June. I have also added a literature cited section, a table, and two figures, all which support the tremendous amount of work we have accomplished.

I hope you will be satisfied with the final recommendations, and give them full support within the Greater Rochester community. We can discuss any additional changes at our late August meeting. I would like to distribute final copies to key government and organization leaders in early September. The DEC public involvement plan should help generate the local political support needed to carry through with the recommendations.

Thanks again for all your efforts-- I'll see you in late August.

Sincerely,

Paul D. Curtis, Ph.D.  
Extension Associate and  
Facilitator, DMU 96  
Citizen Task Force

cc: L. Myers, NYSDEC

**NYS DEER MANAGEMENT UNIT 96**

**Citizen Task Force, Greater Rochester Area  
Meeting #7 Agenda- 27 August 1992, 7:00-9:30 pm  
Monroe County CCE Office, 249 Highland Ave.**

**Agenda Items:**

1. Meetings with Town & County Government Since 23 June- L. Myers
2. Review Final DMU 96 CTF Recommendations for NYSDEC,  
Local Government, and the Community- CTF Members
3. Break
4. Proposed DEC Public Involvement Plan for DMU 96- T. Rockwell
  - a. DEC news releases, informational articles, activities
  - b. CTF member's role
  - c. Potential follow-up video with WXXI on CTF process, press conference
5. Other Activities- P. Curtis
  - a. Proposed 2-year research project
  - b. Contacts by "Save-Our-Deer"
6. Adjourn 9:30 pm



1 September, 1992

Dear Citizen Task Force Member:

Enclosed you will find a copy of the revised recommendations. I made every effort to incorporate comments that were made on 8/27. Theresa Rockwell, DEC Region 8, will be preparing an executive summary of the document for distribution to government officials and the media.

Several CTF members expressed an interest in having a practice session Thursday evening, 3 September. Theresa has reserved Shelter #4 on Log Cabin Road (map attached) for the practice session from 6:30-8:00 pm. This session will be very informal, and DEC will likely provide some food and beverage. Please meet at the same location at noon on Friday, 4 September for the actual press conference. I plan on attending the Thursday evening session, but may be unable to make the Friday conference due to previous travel commitments.

Sincerely,

Paul D. Curtis, Ph.D.  
Extension Associate and  
Facilitator, DMU 96  
Citizen Task Force

cc: L. Myers, NYSDEC  
T. Rockwell, NYS DEC

Deer Management Unit <sup>109</sup> 96 Citizen Task Force  
Press Conference Agenda

12:15 pm Sept. 4, 1992 Durand-Eastman Park

Opening Remarks

Peter Bush

Acknowledge Cornell Cooperative Ext.  
Facilitator Paul Curtis and  
Becky Stout, assistant.

Introduce Larry Myers

DEC Remarks

Larry Myers

Introduce Task Force Members  
Introduce Rick Blevins, Task Force  
Spokes person

Task Force Remarks

Rick Blevins

Questions from the Press

Peter Bush, Moderator

Close of Conference

Peter Bush

**APPENDIX C**

**Questionnaire 1**



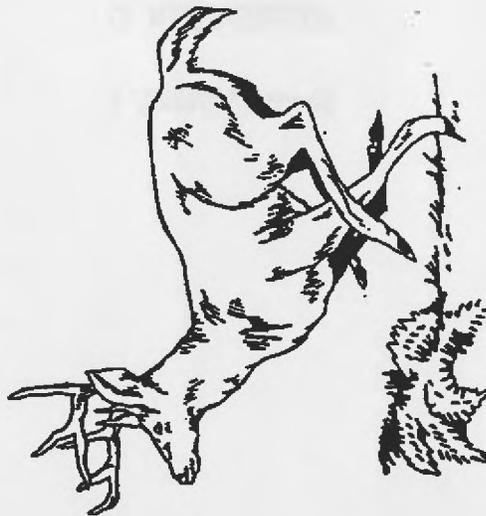
THE BUREAU OF  
STATISTICS  
OF THE  
FEDERAL GOVERNMENT

1100 L.A.

**A Survey of**

**DMU 96 CITIZEN**

**TASK FORCE MEMBERS**



Human Dimensions Research Unit  
Department of Natural Resources  
New York State College of Agriculture and Life Sciences  
A Statutory College of the State University  
Cornell University, Ithaca, N. Y.



**09613**

## A Survey of

### DMU 96 CITIZEN

#### TASK FORCE MEMBERS

Research conducted by the  
Human Dimensions Research Unit  
In the Department of Natural Resources  
New York State College of  
Agriculture and Life Sciences  
Cornell University

This questionnaire is part of a study to assist the New York State Department of Environmental Conservation with refining their citizen participation effort to obtain input in setting deer population objectives. We would like to learn about your thoughts on deer, deer management, and the task force strategy. We will be contacting you periodically throughout this task force process to obtain your views about this effort to involve citizens in deer management. Information that you provide will help improve this strategy as it is used throughout the state.

Please complete this questionnaire at your earliest convenience, but preferably before the first meeting of your task force. Simply enclose this questionnaire in the postage-paid envelope provided, and drop it in any mailbox. Your responses will remain confidential and will never be associated with your name.

**THANK YOU FOR YOUR ASSISTANCE!**

Paul Curtis of the Department of Natural Resources, Cornell Cooperative Extension, has invited you to participate in a set of task force meetings related to managing deer populations. We would like to know more about your perceptions of the task force before attending the first meeting. These next few questions refer to information you may have received to prepare for the meetings.

#### INFORMATIONAL MATERIALS

1. Did you receive informational materials (i.e., articles, reports and data) about deer and deer management when you were invited by Cornell Cooperative Extension to become a task force member?

\_\_\_ Yes

\_\_\_ No

What Information would have helped you prepare for the task force meeting?

112

(SKIP TO QUESTION 6)

2. Have you had an opportunity to review the materials?

\_\_\_ Yes

\_\_\_ No

If you would have had an opportunity to review information before the first meeting, what information would have helped you prepare for the task force meeting?

(SKIP TO QUESTION 6)

3. Circle the number between the two words which most closely represents your opinion about the materials you received. For example, when describing television programs about wildlife as interesting or boring, this person circled "2."

Example: Television programs about wildlife are . . .

Interesting 1 **2** 3 4 5 boring

It appears this person thinks the programs are slightly interesting.

The materials about deer and deer management were . . .

Incomplete	1	2	3	4	5	complete
sufficient	1	2	3	4	5	insufficient
confusing	1	2	3	4	5	understandable
biased	1	2	3	4	5	unbiased
interesting	1	2	3	4	5	boring
easy to read	1	2	3	4	5	difficult to read

4. In which of the following areas have these materials helped increase your knowledge? (Check [✓] all that apply.)

\_\_\_\_\_ Deer biology

\_\_\_\_\_ Factors to consider in deer management

\_\_\_\_\_ Department of Environmental Conservation's deer management policy and procedures

\_\_\_\_\_ Department of Environmental Conservation's methods for determining deer populations

\_\_\_\_\_ Citizen involvement in deer management decisions

\_\_\_\_\_ Participation in the task force

\_\_\_\_\_ None of the materials helped increase my knowledge in these areas

5. What additional information, if any, would assist you in preparing for the task force meetings?

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**PERCEPTIONS ABOUT THE TASK FORCE**

6. What do you think is the intended purpose of the task force?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. What do you think your role and responsibilities will be as a task force member?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**OPINIONS ABOUT DEER AND DEER MANAGEMENT**

8. Do you have any concerns about deer in your area?

\_\_\_ No

\_\_\_ Yes—Please specify which concerns: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. We are interested in your opinions about the Department of Environmental Conservation (DEC) and deer management before the task force meetings begin. Please indicate how strongly you agree or disagree with the following statements about the DEC's deer management by circling the response which most closely represents your opinion:

Strongly Agree    Agree    Undecided    Disagree    Strongly Disagree

The size of the deer herd should be guided by nature alone—DEC should NOT manage the size of the deer herd.

SA    A    U    D    SD

DEC is responsive to the needs and concerns of hunting interests in the deer herd.

SA    A    U    D    SD

DEC is responsive to the needs and concerns of nonhunting interests in the deer herd.

SA    A    U    D    SD

DEC needs to listen more to citizens' opinions about deer management.

SA    A    U    D    SD

Citizens should be encouraged to provide input to DEC for setting a population objective in my area.

SA    A    U    D    SD

Citizens should have the authority for setting a population objective for deer in my area.

SA    A    U    D    SD

Strongly Agree  
Agree  
Undecided  
Disagree  
Strongly Disagree

DEC personnel in my area are enthusiastic about their work with deer.

SA A U D SD

DEC personnel in my area are not visible enough for me to know about their work with deer.

SA A U D SD

Many deer management decisions made by DEC disregard the views of local people.

SA A U D SD

DEC is sincere in its efforts to regulate deer harvests while protecting the deer population.

SA A U D SD

DEC is interested in minimizing negative impacts of deer on people.

SA A U D SD

Strongly Agree  
Agree  
Undecided  
Disagree  
Strongly Disagree

DEC should make the decision for setting a population objective for deer in my area.

SA A U D SD

DEC has not made an adequate attempt to explain its deer management programs to the public.

SA A U D SD

DEC biologists are well qualified to manage deer in my area.

SA A U D SD

Deer management policies of DEC are biologically sound.

SA A U D SD

DEC is more concerned about the welfare of the deer herd than it is about money from license and permit sales.

SA A U D SD

DEC is more concerned about the welfare of the deer herd than it is about money from license and permit sales.

SA A U D SD

DEC's estimate of the local deer population level in my area is not accurate.

SA A U D SD

DEC has excellent information for planning deer management programs.

SA A U D SD

10. Please list what you perceive are some of the DEC's strengths and weaknesses concerning management of the deer population in the state.

(a) strengths: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(b) weaknesses: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

11. Rate how well you think DEC manages deer in your area. (Circle one response.)

poor      fair      good      very good      excellent

**INFORMATION ABOUT YOU**

12. Please estimate the number of days, if any, that you spent in the last 12 months participating in the following wildlife-related activities. (Count any part of a day as a whole day. If you did not participate in the activity, please mark a "0" to indicate you spent no days.)

Number of Days

\_\_\_\_\_ Reading about wildlife  
\_\_\_\_\_ Watching wildlife TV programs or movies  
\_\_\_\_\_ Observing wildlife at your residence  
\_\_\_\_\_ Making trips away from your residence specifically to observe wildlife  
\_\_\_\_\_ Viewing birds attracted to food that you provided for them to eat  
\_\_\_\_\_ Viewing deer attracted to food that you provided for them to eat  
\_\_\_\_\_ Wildlife photography  
\_\_\_\_\_ Wildlife painting, drawing, or carving  
\_\_\_\_\_ Trapping of any wildlife species  
\_\_\_\_\_ Hunting of any wildlife species

17. In what ways you have made your opinions known? (Check  all that apply.)

- Joined a conservation or environmental organization to increase my political input.
- Wrote letters to the editor to be printed in an area newspaper or magazine.
- Donated money to a political lobbying group that supports my views.
- Contacted a DEC wildlife biologist or other DEC representative.
- Contacted my State Senator or Assemblyman.
- Voted for or against a political candidate primarily because of his/her views on deer or deer management issues.
- Signed a petition relating to deer or a deer management issue.
- Other: \_\_\_\_\_

18. What is your occupation?

\_\_\_\_\_

13. Did you hunt white-tailed deer in 1991?

No—If you did not hunt deer in 1991, have you ever hunted deer?  
 No  Yes

Yes—If you hunted deer in 1991, did you hunt in deer management unit 96 located primarily in Monroe County?  
 No  Yes  Don't know

14. Do any members of your immediate family hunt deer?

No  Yes

15. Are you a member of an organization that is interested in deer and the deer population (such as sportsmen's club, homeowners association, or agricultural organization)?

No  Yes—what is the name of the organization(s)?  
\_\_\_\_\_

16. Have you taken actions to make your opinions known to government officials or DEC wildlife biologists about deer and deer management in the past 2 years?

No (SKIP TO QUESTION 18)  
 Yes

(Please use the space below for any comments you may have.)

19. Which of the following best describes the population of the area where you (a) lived most of the time when you were between the ages of 6 and 16, and (b) currently live? (Check  one item in column 'a' and one item in column 'b'.)

Residence Area	(a) Residence between 6-16 years	(b) Current residence
Rural—farm.	_____	_____
Rural—not a farm	_____	_____
Village of under 5,000 people	_____	_____
Village or small city of 5,000 to 24,999 people	_____	_____
City of 25,000 to 99,999 people	_____	_____
City of 100,000 people or more	_____	_____

20. Listed below are descriptions of ways in which people might be affected by the size of the deer herd. Which activities, occupations, or interests describe your personal characteristics? (Check  all of those which apply to you.)

- \_\_\_\_\_ Drive a car or truck
- \_\_\_\_\_ Own ornamental shrubs around my home
- \_\_\_\_\_ Raise fruits and vegetables for my household
- \_\_\_\_\_ Enjoy seeing deer near my residence
- \_\_\_\_\_ Own land in a rural area, but not a farm
- \_\_\_\_\_ Own/employed by a business serving deer hunters
- \_\_\_\_\_ Own/employed in an agricultural industry (please specify type of agriculture): \_\_\_\_\_
- \_\_\_\_\_ Other special interests related to deer (please specify): \_\_\_\_\_

Thank you for your cooperation. Please return this questionnaire to Cornell University in the stamped, self-addressed envelope provided.

APPENDIX D

Questionnaire 2

1. I have a good understanding of the...  
 2. I have a good understanding of the...  
 3. I have a good understanding of the...  
 4. I have a good understanding of the...  
 5. I have a good understanding of the...  
 6. I have a good understanding of the...  
 7. I have a good understanding of the...  
 8. I have a good understanding of the...  
 9. I have a good understanding of the...  
 10. I have a good understanding of the...

11. I have a good understanding of the...  
 12. I have a good understanding of the...  
 13. I have a good understanding of the...  
 14. I have a good understanding of the...  
 15. I have a good understanding of the...  
 16. I have a good understanding of the...  
 17. I have a good understanding of the...  
 18. I have a good understanding of the...  
 19. I have a good understanding of the...  
 20. I have a good understanding of the...

21. I have a good understanding of the...  
 22. I have a good understanding of the...  
 23. I have a good understanding of the...  
 24. I have a good understanding of the...  
 25. I have a good understanding of the...  
 26. I have a good understanding of the...  
 27. I have a good understanding of the...  
 28. I have a good understanding of the...  
 29. I have a good understanding of the...  
 30. I have a good understanding of the...

31. I have a good understanding of the...  
 32. I have a good understanding of the...  
 33. I have a good understanding of the...  
 34. I have a good understanding of the...  
 35. I have a good understanding of the...  
 36. I have a good understanding of the...  
 37. I have a good understanding of the...  
 38. I have a good understanding of the...  
 39. I have a good understanding of the...  
 40. I have a good understanding of the...

## A Follow-up Survey of

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## A Follow-up Survey of

### DMU 96 CITIZEN

### DMU 96 CITIZEN

### TASK FORCE MEMBERS

### TASK FORCE MEMBERS

Research conducted by the  
Human Dimensions Research Unit  
in the Department of Natural Resources  
New York State College of  
Agriculture and Life Sciences  
Cornell University



Now that the task force has set deer population objectives for DMU 96, we would like to know your opinions about the process thus far. Your assistance is needed so the task force process may be evaluated and improved for potential future use throughout New York State.

As you complete this questionnaire, some of the questions may be familiar because they are repeated from the questionnaire you were sent at the beginning of the task force process. It is important that you answer these questions again, because in some instances your answer may have changed as a result of participating on the task force.

We appreciate your continued assistance and patience in helping us evaluate the Citizen Task Force process. Your commitment is important to the future of effective deer management in New York State. If you have any additional comments or questions about the task force or this evaluation, please call Becky Stout at (607) 255-2828.

Human Dimensions Research Unit  
Department of Natural Resources  
College of Agriculture and Life Sciences  
Cornell University, Ithaca, N.Y.

**THANK YOU FOR YOUR ASSISTANCE!**

Please answer the following questions related to the Citizen Task Force to the point where deer population objectives were set. As a task force member, your input is very valuable for assessing and revising the task force approach. Use additional paper for comments or suggestions if necessary.

1. From your experience as a task force member, please indicate how important you think it was for you to understand the factors listed below in order to recommend a deer population level. Circle the number representing the importance of each factor.
 

	Not Important	1	2	3	4	5	Very Important	No Opinion
a. Methods for determining the size and health of the deer herd		1	2	3	4	5	5	0
b. Methods for controlling the number of deer		1	2	3	4	5	5	0
c. Extent of DEC's authority to manage the deer herd		1	2	3	4	5	5	0
d. Limitations on management (i.e., number of deer that can be harvested given current number of hunters and legal harvest quotas per hunter)		1	2	3	4	5	5	0
e. Relationship of the number of deer to the condition of habitat		1	2	3	4	5	5	0
f. Relationship of the number of deer to human land-use trends		1	2	3	4	5	5	0
g. Alternatives and consequences of various deer population levels to:								
tourism/business benefits		1	2	3	4	5	5	0
recreational benefits		1	2	3	4	5	5	0
deer-car accidents		1	2	3	4	5	5	0
crop damage		1	2	3	4	5	5	0
shrub and garden damage		1	2	3	4	5	5	0
h. Role of the task force in deer management decisions		1	2	3	4	5	5	0

2. Did you obtain comments about setting a deer population level from people living in the DMU as input to the task force?

\_\_\_\_\_ No (SKIP TO QUESTION 5)

\_\_\_\_\_ Yes--If "yes," from approximately how many people did you obtain comments? \_\_\_\_\_

(CONTINUE WITH QUESTION 3)

3. How similar were the opinions of the people from whom you obtained comments? (Check [✓] one.)

\_\_\_\_\_ All of the people I contacted shared a similar opinion.

\_\_\_\_\_ A majority of the people I contacted shared a similar opinion.

\_\_\_\_\_ There were two or more minority opinions among the people I contacted.

\_\_\_\_\_ Nearly everyone I contacted had a different opinion.

4. Do you think the opinions expressed by the people you contacted adequately represent your stakeholder group, or do you think more people in the DMU should have been contacted to adequately represent your stakeholder group?

\_\_\_\_\_ The people I contacted adequately represented my stakeholder group in the DMU.

\_\_\_\_\_ More people in my stakeholder group should have been contacted.

A minimum of how many additional people need to be contacted? \_\_\_\_\_

5. Were the DEC wildlife biologists attentive to the interests you represented at the task force meetings?

Yes \_\_\_\_\_  
No--if "no," which interests were disregarded? \_\_\_\_\_  
\_\_\_\_\_

6. During the task force meetings, many factors were weighed to reach a consensus about recommending a deer population level. How important are the factors listed below to the people whose interests you reflected in your DMU? Please assign points to these 10 factors, giving more points to more important considerations, so that the total equals exactly 100 points.

- \_\_\_\_\_ Reduce starvation of deer during the winter
- \_\_\_\_\_ Reduce the risk of deer-car accidents
- \_\_\_\_\_ Reduce the risk of Lyme disease
- \_\_\_\_\_ Reduce deer damage to homeowners' shrubbery and gardens
- \_\_\_\_\_ Reduce economic losses to farmers from deer damage to crops and orchards
- \_\_\_\_\_ Provide recreational opportunities for hunters
- \_\_\_\_\_ Provide venison for people to eat
- \_\_\_\_\_ Provide revenue for businesses from recreation and tourism
- \_\_\_\_\_ Provide deer for people to see
- \_\_\_\_\_ Provide deer a place to live despite problems they may cause

100 points total

7. Generally, how do you personally feel about the deer in your DMU? (Check [✓] one.)

- \_\_\_\_\_ I enjoy the presence of deer AND I do not worry about problems deer may cause.
- \_\_\_\_\_ I enjoy the presence of deer BUT I worry about problems deer may cause.
- \_\_\_\_\_ I do not enjoy the presence of deer and regard them as a nuisance.
- \_\_\_\_\_ I have no particular feelings about deer in my DMU.

8. As a result of participating in the task force, did your opinion change about the deer population in your DMU?

- \_\_\_\_\_ No
- \_\_\_\_\_ Yes--If "yes,"

(a) How did your opinion change?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(b) What influenced your change of opinion?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. How strongly do you agree or disagree with the following statements? (Please circle the response which most closely represents your opinion for each statement.)

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
DEC is responsive to the needs and concerns of hunting interests in the deer herd.	SA	A	U	D	SD
DEC is responsive to the needs and concerns of nonhunting interests in the deer herd.	SA	A	U	D	SD
DEC needs to listen more to citizens' opinions about deer management.	SA	A	U	D	SD
Citizens should be encouraged to <u>provide input</u> for determining a population level for deer in their DMU.	SA	A	U	D	SD
Citizens should <u>have the authority</u> for determining a population level for deer in their DMU.	SA	A	U	D	SD
DEC should make the decision for setting a population objective for deer in my area.	SA	A	U	D	SD
DEC has <u>not</u> made an adequate attempt to explain its deer management programs to the public.	SA	A	U	D	SD
DEC biologists are well qualified to manage deer in my DMU.	SA	A	U	D	SD
Deer management policies of DEC are biologically sound.	SA	A	U	D	SD
DEC is more concerned about the people that the deer herd affects than it is about money from license and permit sales.	SA	A	U	D	SD
DEC is more concerned about the welfare of the deer herd than it is about money from license and permit sales.	SA	A	U	D	SD
DEC's estimate of the local deer population level in my DMU is <u>not</u> accurate.	SA	A	U	D	SD
DEC has excellent information for planning deer management programs.	SA	A	U	D	SD
DEC personnel in my area are enthusiastic about their work with deer.	SA	A	U	D	SD
DEC personnel in my area are <u>not</u> visible enough for me to know about their work with deer.	SA	A	U	D	SD
Many deer management decisions made by DEC disregard the views of local people.	SA	A	U	D	SD
DEC is sincere in its efforts to regulate deer harvests while protecting the deer population.	SA	A	U	D	SD
DEC is interested in minimizing negative impacts of deer on people.	SA	A	U	D	SD

10. Considering your experience as a task force member, wildlife managers would like to know your opinion about how information should be collected when deer population decisions are necessary. Which method do you prefer for setting a deer population objective in your DMU? (Check [✓] one.)

DEC wildlife biologists should make informal contacts with people in the DMU and attend meetings of local organizations to receive input.

DEC wildlife biologists should hold a public meeting to receive input from people in the DMU.

DEC wildlife biologists should seek input from a few citizens reflecting various interests who would serve on a task force committee to recommend a deer population level.

Many people living in the DMU should be surveyed to provide DEC wildlife biologists with input.

I prefer another method (please specify): \_\_\_\_\_

I have no opinion. \_\_\_\_\_

11. Based on your experience as a task force member, please assess the following: (Circle one response for each statement.)

a. DEC staff's information presentations at the first meeting.

poor fair good very good excellent

b. Organization of the task force meetings.

poor fair good very good excellent

c. Task force approach as a way to get people with a variety of interests involved in deer management decision making.

poor fair good very good excellent

d. DEC's management of deer in your area.

poor fair good very good excellent

12. Please express your agreement or disagreement with the following statements about the task force by circling the letter that best reflects your opinion.

Strongly Agree Agree Undecided Disagree Strongly Disagree

**BEING A TASK FORCE MEMBER**

Participating in the task force has increased my knowledge about deer management.

SA A U D SD

Participating in the task force has increased my understanding of other people's views about deer.

SA A U D SD

Task force members did a good job projecting the interests of the people in the DMU.

SA A U D SD

I wish I had been more involved in the task force discussions.

SA A U D SD

Not all task force members participated fully in the discussions.

SA A U D SD

I feel that I participated effectively in the task force meetings.

SA A U D SD

**YOUR IMPRESSIONS ABOUT THE TASK FORCE ORGANIZERS**

The Cornell Cooperative Extension agent provided capable leadership for the meetings.

SA A U D SD

Wildlife biologists avoided answering some questions asked by task force members.

SA A U D SD

After the wildlife biologists' presentations, the task force members engaged in most of the discussion.

SA A U D SD

Strongly Agree  
Agree  
Undecided  
Disagree  
Strongly Disagree

The task force recommendation about a deer population objective was decided fairly.

14. Why are you satisfied or dissatisfied with the task force?

SA A U D SD

The viewpoints of people most affected by deer population decisions were well represented at the task force meetings.

SA A U D SD

The task force by design was biased toward promoting some interests at the expense of others.

SA A U D SD

The task force's recommendation differs from what the majority of people living in the DMU would have recommended.

SA A U D SD

The number of meetings and length of discussion were adequate for arriving at a consensus.

SA A U D SD

Most participants were dissatisfied with the task force process.

SA A U D SD

The citizen task force approach should continue to be used in the future for recommending deer population objectives.

SA A U D SD

13. Has the task force process (up to the point that the task force recommended a deer population level) been satisfactory to you?

\_\_\_ No

\_\_\_ Yes

15. Besides recommending a deer population level, has the task force accomplished anything else?

\_\_\_ No

\_\_\_ Yes--If "yes," what else has the task force accomplished?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**16. If you would like to make any additional comments, please write in the space below.**

**TO RETURN THIS QUESTIONNAIRE, place it in the return envelope and deposit it in any mailbox. Return postage has been provided.**

**THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY!**

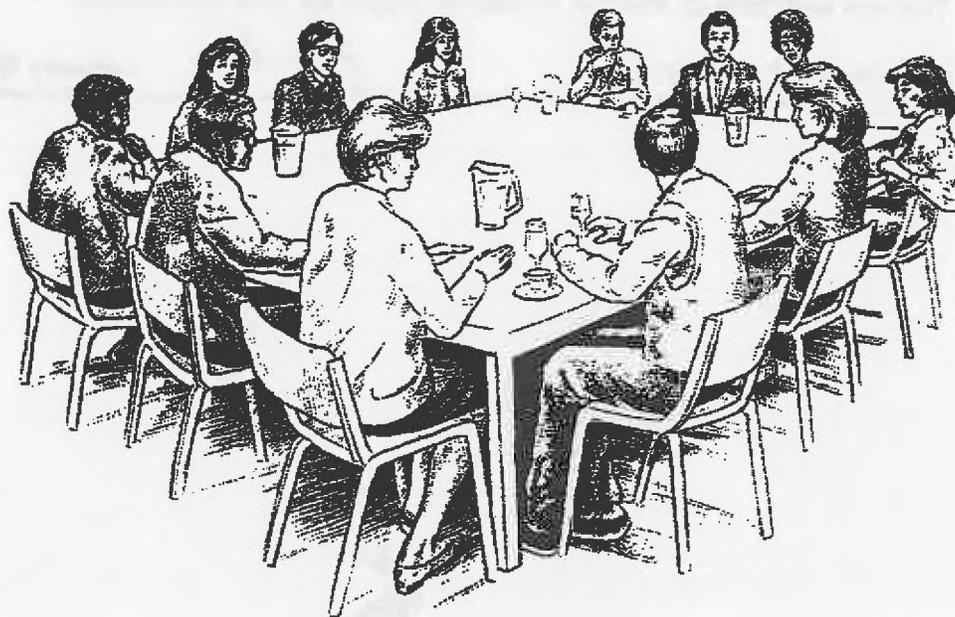
## APPENDIX E

### Questionnaire 3

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# A Follow-up Questionnaire of DMU 96 Citizen Task Force Members



Human Dimensions Research Unit  
Department of Natural Resources  
Fernow Hall  
Cornell University  
Ithaca, NY 14853-3001

000003

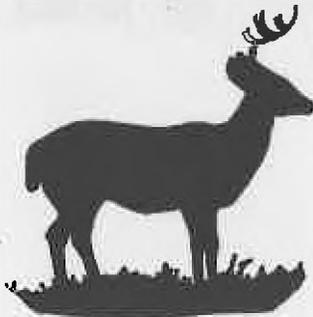
Dear Task Force Member:

It has been almost five months since the DMU 96 Citizen Task Force released its recommendations at the press conference in August. Once more, I would like to find out your opinions about the task force. This questionnaire focuses on your assessment at the conclusion of the task force, the recommendations and outcomes, and communication opportunities in which you have participated. The information you provide will assist with the evaluation of the task force as a policy education forum, its application in suburban and other deer management areas, and the development of accompanying communication strategies.

Please take a few moments to answer the following questions, then mail the questionnaire in the enclosed self-addressed, stamped envelope. This is the last contact I will have with you regarding the DMU 96 task force. Feel free to make comments in the margins or the back page of the questionnaire to express any opinions to me about the task force. You are welcome to enclose additional pages for your comments.

Thanks in advance for your input!

*Becky* —Becky Stout



1. What is your opinion about the information (e.g., research articles, input from technical advisors) presented to the DMU 96 Citizen Task Force? Please circle one of five word choices about the amount of information (all, most, half, some or none) described in the statement.

Information presented to the DMU 96 task force:	Amount of information				
	all	most	half	some	none
a. . . was fair and unbiased.	all	most	half	some	none
b. . . supported the views of DEC.	all	most	half	some	none
c. . . supported the views of Cornell Cooperative Extension.	all	most	half	some	none
d. . . supported the views of a particular task force member.	all	most	half	some	none
e. . . was too complex for the average person to understand.	all	most	half	some	none
f. . . was more than I had time to read between meetings.	all	most	half	some	none
g. . . was familiar to me before participating on the task force.	all	most	half	some	none
h. . . helped improve my understanding about deer and deer management.	all	most	half	some	none
i. . . was relevant for making recommendations about deer management.	all	most	half	some	none

2. How sufficient was the information presented at the meetings in helping you understand the technical aspects of deer management? (Check one.)

- Extremely sufficient  
 Moderately sufficient  
 Somewhat sufficient  
 Not at all sufficient  
 No opinion

3. We would like to understand how being a member of the task force from January-August, 1992 has affected the way you view deer management in DMU 96. Recall how you viewed deer management issues in DMU 96 before participating on the task force. Compare this with how you view deer management issues after participating on the task force. (Place a "T" for true or "F" for false in each blank to indicate whether or not the statement was true before or after you participated on the task force.)

<u>Before</u> participating on the CTF	<u>After</u> participating on the CTF
--	---

(T=true, F=false)

- |       |       |  |
|-------|-------|--|
| _____ | _____ | Aware of deer management issues in DMU 96.   |
| _____ | _____ | Interested in learning about deer management issues.   |
| _____ | _____ | Believed that something needed to be done to resolve deer management issues.                       |
| _____ | _____ | Formed ideas about how deer management issues might be resolved.                                   |
| _____ | _____ | Aware that alternative management plans existed to resolve deer management issues.                 |
| _____ | _____ | Aware of the consequences of implementing alternative management plans.                            |
| _____ | _____ | Attempted to influence policy makers about deer management issues.                                 |
| _____ | _____ | Kept informed about the alternative deer management proposals that policy makers discussed.        |
| _____ | _____ | Assessed the reactions of people in DMU 96 who were affected by alternative deer management plans. |

4. The DMU 96 Citizen Task Force was initiated by DEC and Cornell Cooperative Extension. Primarily the facilitator set the ground rules for the task force meetings. If you had a choice for organizing the task force meetings, which of the following options would you have preferred? *(Check one.)*

A third-party facilitator, like Cornell Cooperative Extension, should set the ground rules for the task force meetings, as was used in DMU 96.

With assistance from a third-party facilitator, task force members should set the ground rules of the meetings.

Task force members should set the ground rules and decide whether a member be chairperson, or to ask a third-party facilitator.

Another format should have been used *(please explain)*:

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5. Reaching an agreement by consensus can be defined in many ways. Which of the following statements describes the best way for a task force to define when a consensus is reached about the deer herd? *(Check one.)*

To achieve consensus, the majority of members serving on a task force (more than 50%) needs to agree with the recommendation.

To achieve consensus, all but one member need to agree with a recommendation (as was defined at the DMU 96 task force).

To achieve consensus, all members must agree with the recommendation.

I suggest using a method other than consensus (as defined in the 3 options above) to reach agreements on a task force. *(Please explain what type of method you have in mind.)*

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6. For what reason(s) did you choose to define consensus as the item you checked in Question 5 above?

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7. What are your opinions about the fairness and efficiency of the task force? Please indicate your agreement or disagreement with the following statements by circling the letters that best reflect your opinion.

	Strongly <u>Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	Strongly <u>Disagree</u>
a. Members of the task force were selected in a way that:					
... reflected a broad range of interests in the community.	SA	A	U	D	SD
... reflected only the opinions of a minority of people in the community.	SA	A	U	D	SD
... gave all those who wanted to participate an adequate chance to do so.	SA	A	U	D	SD
... encouraged open exchange of opinions.	SA	A	U	D	SD
... encouraged thought about ways to solve the deer population problem.	SA	A	U	D	SD
... caused the task force to arrive at a predetermined outcome.	SA	A	U	D	SD
b. Everyone on the task force was given the opportunity to express his or her viewpoint.	SA	A	U	D	SD
c. Some task force members were overly-influenced by other members' opinions.	SA	A	U	D	SD
d. The task force was responsive to those people who were most affected by the recommendation.	SA	A	U	D	SD
e. All task force members were given a chance to be involved in discussions.	SA	A	U	D	SD
f. Members would have benefitted from extending the task force by one or two meetings.	SA	A	U	D	SD
g. The viewpoints of people most affected by deer population decisions were well represented at the task force meetings.	SA	A	U	D	SD

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
h. My stakeholder interest may have done better on its own instead of participating on the task force.	SA	A	U	D	SD
i. The release of task force recommendations coincided with deadlines for government decision makers.	SA	A	U	D	SD
j. The task force used poor judgment to make its recommendations.	SA	A	U	D	SD
k. The task force set unrealistic expectations for accomplishing its recommendations.	SA	A	U	D	SD
l. The recommendations are feasible in light of the social and political context within DMU 96.	SA	A	U	D	SD
m. The task force's recommendations differ from what the majority of people living in the DMU would have recommended.	SA	A	U	D	SD
n. The task force should be reconvened next year after additional data are gathered.	SA	A	U	D	SD
o. I would be willing to renegotiate in another task force meeting if something goes awry in implementing the task force recommendations.	SA	A	U	D	SD
p. The results from the task force recommendations were that:					
... everyone gained something.	SA	A	U	D	SD
... some people gained more than others.	SA	A	U	D	SD
... some people compromised more than others.	SA	A	U	D	SD
... everyone had to give up something.	SA	A	U	D	SD
u. The task force recommendations were decided fairly.	SA	A	U	D	SD
v. The citizen task force approach should continue to be used in the future for recommending deer management techniques.	SA	A	U	D	SD

8. Based on your experience as a task force member, how would you rate the task force approach as a way: (Circle one word choice for each statement.)

... to get people with a variety of interests involved in deer management decision making?

poor      fair      good      very good      excellent

... to resolve deer management issues in suburban environments?

poor      fair      good      very good      excellent

... for citizens to make well-informed recommendations?

poor      fair      good      very good      excellent

9. Do you think the task force approach needs to be improved?

Yes—What improvements would you suggest?

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No

10. To what degree do each of the statements listed below reflect the outcomes from the DMU 96 Citizen Task Force? Please indicate your agreement or disagreement with the following statements by circling the letters that best reflect your opinion.

**THE TASK FORCE:**

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
a. achieved consensus among diverse interests in the community.	SA	A	U	D	SD
b. achieved consensus at the expense of alienating some interests.	SA	A	U	D	SD
c. built positive relationships among diverse interests in the community.	SA	A	U	D	SD
d. widened the "communications gap" between diverse interests in the community.	SA	A	U	D	SD
e. caused state and local government officials to listen more to people's opinions about deer.	SA	A	U	D	SD
f. caused state and local government officials to make hasty decisions about the future of the deer herd.	SA	A	U	D	SD
g. educated members about deer and deer management.	SA	A	U	D	SD
h. educated the public about deer and deer management.	SA	A	U	D	SD

11. What other outcomes occurred that were not listed above? (Please explain.)

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12. What do you believe is the single most important outcome of the DMU 96 Citizen Task Force?

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13. One possible criticism of the task force approach was the lack of input from people in the community as the task force was underway. Do you agree or disagree with this criticism?

Agree—How might more public input be incorporated into the task force approach?

\_\_\_\_\_

\_\_\_\_\_

Disagree

14. In your opinion, at what point during the process should the following interests be brought into the task force? (You may check more than one box for each interest.)

Sequence of Citizen Task Force meetings	Interests		
	Mass media	Town & Go government officials	People in the community
Before the first meeting			
Meetings 1-2 when discussing deer population objectives			
Meeting 3 when agreeing on deer population objectives			
Meetings 4-6 when discussing deer management techniques			
Meeting 7 when agreeing on deer management techniques			
After Meeting 7, the last task force meeting			
Not at any time before, during or after the task force meetings			

15. Do you believe some interests were left out of the DMU 96 Citizen Task Force?

Yes—Which interests? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

No

As part of this study, we hope to identify any communications that took place related to the task force. As you answer the questions below, feel free to attach additional paper, copies of newsletters, newspaper articles, etc. to illustrate how you were involved with informing others about the task force from January 13, 1992 (the first DMU 96 task force meeting) to present.

16. Were members of your organization(s) informed about the task force?

Yes—a. Please describe which organizations were informed and how, e.g., through a newsletter, presentation, or other method.

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b. About how many were informed? \_\_\_\_\_ people

No

17. Did you communicate individually with people about the task force, other than members of organizations indicated in Question 16?

Yes—if yes, about how many people? \_\_\_\_\_ people

No

18. Were you interviewed by the media (either by a newspaper, magazine, television or radio reporter) about the task force?

Yes—if yes, please complete the information in the table below.

No—Go to Question 19.

Name of station or newspaper	Estimated date of interview	Estimated date of publicity	Brief description of the message that the media used from your interview
1.			
2.			
3.			
4.			
5.			

19. Did you voice your opinion at local government meetings, write letters to the editor, or in any other way communicate about the task force to the general public?

Yes—If yes, please describe other communication activities in which you participated:

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No

20. Besides the task force, are there any additional deer-related events in which you participated or attended since the first task force meeting on January 13, 1992?

Yes—if yes, please describe the deer-related event:

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No

Please use the space below or attach additional pages to this questionnaire for any other comments you wish to make.


Thank you for your input.

To mail this questionnaire, please use the enclosed self-addressed, stamped envelope that is addressed to: Becky Stout; Department of Natural Resources; 126 Fernow Hall; Ithaca, New York 14853-3001.

APPENDIX F

APPENDIX F

Results From Telephone Interview #1

[The following text is extremely faint and largely illegible. It appears to be a list of items or a table with multiple rows and columns. Some faint words and numbers are visible, such as '1', '2', '3', '4', '5', '6', '7', '8', '9', '10', '11', '12', '13', '14', '15', '16', '17', '18', '19', '20', '21', '22', '23', '24', '25', '26', '27', '28', '29', '30', '31', '32', '33', '34', '35', '36', '37', '38', '39', '40', '41', '42', '43', '44', '45', '46', '47', '48', '49', '50'.]

## DMU 96 FEEDBACK FROM TASK FORCE MEMBERS

### Summary of Comments About Meeting 1

Ten task force members who attended the January 13 meeting were interviewed by telephone from January 16-21. A summary of responses to three questions are described below. The total number of responses for each question are greater than the total number of task force members, as many members had multiple responses.

**(1) What was most impressive and least impressive about this meeting?**

**(a) most impressive**

**Meeting's organization (n=5)**

- not a "free-for-all," as I had expected (n=1)
- not allowed to ramble, good job keeping the task force on a timetable (n=1)
- Paul took control and moved the meeting along. (n=1)

**Information presented at the meeting (n=5)**

- quality of speakers (n=1)
- information from task force members about their actions related to deer in DMU 96 (n=1)
- The technical information changed the way I think. This information will be useful for my constituency to know. (n=1)
- information from the Sheriff's Department (n=1)
- Larry Myer's model of the task force process, the wagon wheel changing to a circle, made a good visual impression (n=1)

**The task force effort (n=3)**

- the dinner was most impressive (n=1)
- DEC is soliciting input and the task force is using a consensus process. (n=1)
- the lengths to which DEC went to solicit public opinion, the cost and preparation, the effort to engage any interested party (n=1)

**Composition of the task force (n=2)**

- the number of people from Irondequoit who were members (n=1)
- Only one group had a difference of opinion with the other task force members in their feelings concerning managing deer and using hunting as a tool. (n=1)

**(b) least impressive**

Nothing was least impressive. (n=5)

**Lack of representation of all interests on the task force (n=3)**

- The task force lacks representation from a group that I know of that is against trap and transfer; however I will give assignment sheets to the group so they will be covered in this process. (n=1)
- This is not actually least impressive, but in my opinion, a lack of representation of anti-management and anti-hunting opinions on the task force may be a problem later. The task force needs a wider representation on the task force to get the populous behind what the task force is doing. (n=1)
- The task force was stacked. The majority of members were concerned about the problems deer cause, the negative impacts, not the benefits deer provide to the community. The overwhelming majority of people in the community do not hunt but like to see deer in the parks. Adding one more person to the task force will not balance the representation. Adding an animal rights activist will not balance the task force—they do not represent the majority either. (n=1)

**Lack of data about the size of the deer population in DMU 96 (n=2)**

- DEC does not survey the deer population, and does not know the specific number of deer in the DMU 96 deer population. (n=1)
- We still have no idea about how many deer are in the DMU, and have no idea about what to base our position. (n=1)

From what I learned at the first meeting, the potential for workable solutions does not appear too promising in DMU 96. Deer hunting is acceptable in other areas of the state, but it will not work here. DEC and the task force may identify reasonable solutions and agree to a solution but it may not sell to the public. (n=1)

The ambiguity about the worthiness of the 10 pieces of paper we should tally--many members were dissatisfied with this. First, there should be some rational thought to determine how many people to contact. The task force has never been conducted in a place with this much sentiment and emotions. (n=1)

**(2) How do you feel about the presentations? Did you learn anything new?****(a) presentations**

Very good (n=4), well done (n=3), good (n=1), fairly good (n=1)

The speakers were articulate and knowledgeable. (n=1)

No speakers presented the redeeming characteristics of deer, all the information was against deer—the only good thing about deer was killing and eating them. (n=1)

DEC's presentation needed to pertain to the suburban deer herd in DMU 96; for example, starving deer may be present in the Adirondacks, but this has nothing to do with deer in our area—was DEC being manipulative in presenting information about starvation or was it just innocent? (n=1)

The presentation by the parks was the weakest—he focused on only one park instead of the charge of the task force, which was to consider all the parks in DMU 96. (n=1)

The presentation by the Health Department was of marginal interest to the task force. (n=1)

**(b) learning new information**

Nothing was new—I knew previously about deer and deer management. (n=5)

- Some information was redundant but was necessary for background, nothing was exciting. (n=1)

I learned some specific statistics, but most was not new. (n=1)

I was not familiar with the issue before attending the task force. (n=1)

Deer-car accidents (n=5)

- Specific numbers of and increase in deer-car accidents in Monroe County (n=3)
- Monroe County is #1 in the state for deer-car accidents. (n=1)
- October/November/December months are peak time for deer-car accidents. (n=1)
- The Monroe Co. Sheriff's Department uses deer whistles. (n=1)

I learned about the inefficiency of using a helicopter to count the number of deer. After talking to the experts, I now understand that the helicopter could not get close enough to the ground. Such a count would underestimate the actual number of deer. (n=1)

It was extremely valuable for me to learn who I can contact for background information and as speakers. (n=1)

I learned that the difficulty in managing deer in our area is that standard deer management procedures are not applicable. (n=1)

**(3) Do you have any suggestions for improving this meeting, or the next meeting in which the task force will discuss concerns about deer?**

Organizers need to carefully define stakeholder interests that task force members are representing, so that each member understands who they represent. (n=1)

I am unsure about what to expect at the next meeting. (n=4)

It would be helpful to have an agenda for the second meeting. (n=1)

More guidance should be provided to task force members about collecting information with the assignment sheet. (n=2)

- it would be very easy to interview 10 people that think like I do, but it would be more informative to interview people whose opinions we don't know to understand the extent of their awareness and what education needs to be done. (n=1)
- Task force members should be informed about interviewing procedures so that members do not lead respondents toward their own opinions. (n=1)
- The assignment sheet needs a place for the date of the interview. (n=1)
- We need additional guidelines about contacting stakeholders—either limit the number of forms or eliminate this part of the task force. (n=1)
- What is the value of collecting this information? It has been done time and time again. (n=1)

Use Deming's method at the second meeting, which is a total equality method for problem solving. It will move the process along quickly. At the first meeting, Curtis played the role of a facilitator, which is a part of the Deming method. (n=1)

I would like more information about trap and transfer of deer. (n=1)

We need data about the size of the deer population. At the first meeting, we learned about the high number of deer-car accidents and that people are concerned about deer. The question is, is the problem that there are too many deer in DMU 96, or is it a lack of space for a few deer to live? (n=1)

We needed more scientific information at the first meeting about deer in general, e.g., biology, life cycle, behavior (social and individual), and physiology. (n=1)

Some type of governmental representative is needed on the task force. (n=1)

**Additional Comments and Observations:**

The newspaper had a nice write-up about the task force. (n=1)

The newspaper publicized information about a new, huge committee that wants to stop "us bad guys" from killing deer. (n=1)

This DMU is unique in that much of the DMU does not allow hunting. (n=1)

I will hand out the assignment sheets to anyone I come across, and will ask my constituency for input through a newsletter. (n=1)

DEC will be gaining some positive "PR" from implementing the task force process. I think they are trying to change the public's impression that DEC is distant. (n=1)

A part of me suspects the decision to bow hunt has already been made by DEC. (n=1)

Paul is a good facilitator, but he will need to become a mediator. This is a polar issue in DMU 96. Entrenched viewpoints will limit the exchange of information, and we have at least one member that is entrenched. DEC's position is that they generally try to keep animal rightists off task forces. (n=1)

Prepared by  
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Human Dimensions Research Unit  
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Cornell University

**APPENDIX G**

**List of Affiliation of Technical Advisors and Speakers  
Participating in the CTF Meetings  
and Distributed Information**

## LIST OF AFFILIATION OF TECHNICAL ADVISORS AND SPEAKERS

Bureau of Wildlife, New York State Department of Environmental Conservation,  
regional and central office wildlife staff, supervisor, managers and biologists,  
and Bureau chief

City of Rochester Parks representative

Cornell Cooperative Extension, Ithaca

Department of Natural Resources, Human Dimensions Research Unit, Cornell  
University, Ithaca

Division of Fish and Wildlife, New York State Department of Environmental  
Conservation, citizen participation specialist, regional director, Avon

Immunocontraception scientist, Eastern Montana College

Monroe County Department of Health

Monroe County Department of Parks

Monroe County Legislature chair

Monroe County Sheriff's Department

New York Cooperative Fish and Wildlife Research Unit, Cornell University, Ithaca

Town of Brighton Supervisor

Town of Greece Police Officer

Town of Irondequoit Supervisor

## DISTRIBUTED INFORMATION

Before Meeting 1:

- Big Game Unit. 1992. Fall 1991 deer management highlights. (One-page summary of statewide deer harvest trends with figures.) DEC, Albany, NY.
- Deer Damage Complaints in DMU 96. 1992. (Table). Number of complaints to the agency from 1982 to 1989.
- Dickinson, N. R. 1984. Managing one of New York's most successful wildlife species: the white-tailed deer. (Unpublished). Description of deer management practices within the biological, political and historical context.
- Bureau of Wildlife. 1991. 1990 deer take by county and town. (Brochure). NYSDEC, Albany, NY.
- Bureau of Wildlife. 1992. Yearling beam diameters and age data for DMU 96. (Table). Mean beam diameter of male deer 1978 to 1990. NYSDEC, Albany, NY.
- New York State Department of Environmental Conservation. 1990. New York's deer management program. (Brochure). Albany, NY.
- New York State Department of Environmental Conservation. 1991. A survey of deer hunters in New York State. (Brochure). Albany, NY.
- New York State 1991-92 Big Game Hunting. New York State Department of Environmental Conservation. Guide with license information, season dates, and regulations.
- New York State Department of Environmental Conservation. 1991. Citizen task forces on deer management: 1991 update. Albany, NY.
- Fargione, M. J., P. D. Curtis, and M. E. Richmond. 1991. Resistance of woody ornamental plants to deer damage. Cornell Coop. Ext. Home-Grounds Garden Fact Sheet 800.00, N.Y. State Coll. Agric. and Life Sci., Cornell Univ., Ithaca, N.Y. 4pp.
- Sauer, Peggy R. 1984. Here a deer, there a deer, everywhere a deer. The Conservationist (November-December). 3pp.
- Severinghaus, C. W. and Rosalind Gottlieb. 1959. Diagram of the reproductive potential of seven generations of white-tailed deer.
- Vehicle-killed Deer Report Tags for Towns in DMU 96. 1992. (Table). Number of complaints in which a permit was issued, not including deer struck by a car but not killed, deer killed but not wanted by vehicle operator, or close calls.

Meeting 1:

Decker, D. J., K. M. Loconti Lee, and N. A. Connelly. 1989. Incidence and costs of deer-related vehicular accidents in Tompkins County, New York. Hum. Dimensions Res. Unit Publ. 89-7. Dep. Nat. Resour., Cornell Univ., Ithaca, N.Y. 22pp.

Mirabella, F. 1992. Townships reporting red fox and raccoon rabies: 1/1/90 - 11/30/91. (Figure of towns in New York State.) Monroe County Department of Health, Rochester, NY.

Pollock, T. 1992. Monroe County Parks concerns--Irondequoit deer. (Outline.) Monroe County Parks, Rochester, NY.

Stout, B. and B. Knuth. 1992. Evaluation of DMU 96 citizen task force meetings: A summary for task force participants. Cornell University, Ithaca, NY.

Meeting 2:

Irondequoit Deer Action Committee. 1992. Measures of success for any deer herd reduction program. IDAC, Rochester, NY.

Ludwig, J. 1981. Proportion of deer seen in aerial counts. Minn. Wildl. Res. Q. 41(1):12-19.

Stoll, R. J., Jr., M. W. McClain, J. C. Clem, and T. Plageman. 1991. Accuracy of helicopter counts of white-tailed deer in western Ohio farmland. Wildl. Soc. Bull. 19:309-314.

Bear, G. D., G. C. White, L. H. Carpenter, R. B. Gill, D. J. Essex. 1989. Evaluation of aerial mark-resighting estimates of elk populations. J. Wildl. Manage. 53(4):908-915.

Meeting 3:

Decker, D. J. and N. A. Connelly. 1989. Deer in suburbia--pleasures and pests. The Conservationist (New York) 43(5):46-49.

Decker, D. J. and K. M. Loconti. 1989. When two worlds collide. The Conservationist (New York) 43(Nov.-Dec.):45-47.

Kuser, J.E., and J.E. Applegate. 1986. Princeton township: the history of a no-discharge ordinance's effect on deer and people. Paper presented at the Northeast Section-The Wildlife Society Meeting, Hartford, CT.

Schneider, D. and J. Kuser. 1989. Suburbia--too many deer or too many people? New Jersey Outdoors January/February:28-32.

Witham, J. H. 1991. Reduction of a local deer herd at Rock Cut State Park. (executive summary and video.) Contract Completion Rep., Illinois Dep. Conserv., Div. Wildl. Resour.

Meeting 4:

Brush, C.C., and D.W. Ehrenfeld. 1991. Control of white-tailed deer in non-hunted reserves and urban fringe areas. Pgs.59-66 in L.W. Adams and D.L. Leedy, eds. Wildlife Conservation in Metropolitan Environments. NIUW Symp. Ser. 2, National Inst. for Urban Wildlife, Columbia, MD.

Ellingwood, M. R. and S. L. Caturano. 1988. An evaluation of deer management options. Connecticut Dept. of Environ. Protection, Wildlife Bureau and U.S. Fish and Wildlife Service. 12pp.

Turner, J. W., Jr., I. K. M. Liu, and J. F. Kirkpatrick. 1992. Remotely delivered immunocontraception in captive white-tailed deer. J. Wildl. Manage. 56(1):154-157.

Meeting 5:

Letter to Sandy Baker from Allen Rutberg, Humane Society of the United States, May 4, 1992, regarding PZP immunocontraception vaccine.

Meeting 6:

Lowery, M. D., J. W. Glidden, and D. E. Riehlman. 1992. Techniques for the management of locally overabundant deer populations: a review. NYSDEC.

New York State Department of Environmental Conservation. 1992. Hunting is safe. (Brochure.) NYSDEC, Albany, NY.

New York State Department of Environmental Conservation. 1992. Bowhunting is safe. (One page summary.) NYSDEC, Albany, NY.

New York State Department of Environmental Conservation. 1992. Hunting is safe....The facts. (One page summary.) NYSDEC, Albany, NY.

Meeting 7:

McCullough, D. R. 1984. Lessons from the George Reserve, Michigan. Pages 211-242 in L. K. Halls (ed), White-tailed Deer Ecology and Management. Stackpole Books, Harrisburg, Pa. 870p.

Fodge, J. 1992. Citizen task force - a new deer management tool. Summer 1992 news release, New York State Department of Environmental Conservation, Region 8, Avon, NY.

Myers, L. 1992. Urban deer management - here and there. Summer 1992 news release, New York State Department of Environmental Conservation, Region 8, Avon, NY.

New York State Department of Environmental Conservation. 1992. DMU 96 citizen task force update. August 17 news release, Region 8, Avon, NY.

Tilghman, N. G. 1989. Impacts of white-tailed deer on forest regeneration in northwestern Pennsylvania. J. Wildl. Manage. 53(3):524-532.

**APPENDIX H**

**Results from Telephone Interview #2**

## DMU 96 FEEDBACK FROM TASK FORCE MEMBERS

### Summary of Comments About Meeting 2

Nine of ten task force members who attended the February 18 meeting were interviewed by telephone from February 21 - 25, 1992. A summary of responses to three questions are described below. The total number of responses for each question may be greater or less than the total number of task force members, because some members provided more than one response or did not respond to the question.

- (1) **Do you think that some interests and concerns were overrepresented or underrepresented, or that some interests and concerns were not represented at all?**

Interests were well represented (n=3)

- The representation of interests and concerns was fair and reasonable. I admit that I am biased in favor of taking some action, and I think the task force will move in that direction. (n=1)
- The task force was somewhat heavy on the Irondequoit issue, but it is one of the biggest issues. (n=1)
- I think the task force was evenly distributed between landowners, residents and hunters. I was comfortable with the representation. (n=1)

Some interests were overrepresented (n=4)

- I do not wish to elaborate at this point. (n=2)
- The various interests were hashed over pretty fairly, but problems in Irondequoit dominated the discussion. However, the problems are not unique to Irondequoit, and [Paul] did try to direct the discussion to DMU 96. The recommendation to divide the DMU into 2 units may resolve the issue. (n=1)
- The animal lovers were overrepresented, although there is only one on the task force. (n=1)

Some interests were underrepresented (n=3)

- I do not wish to elaborate at this point. (n=1)
- The stakeholder interests on the task force are not a balanced representation of the community. The task force discussed how plants are being negatively affected; however, equal attention is not being given to the park users who enjoy seeing deer, taking pictures, etc. Some people may enjoy seeing the animals in the park more than having a diversity of plants. (n=1)

- The number of responses collected from people was not recorded at the meeting. About 10-15% of the people I contacted wanted nothing done to the deer population. I would imagine the majority of people in the community are in favor of doing something; those who want nothing done could feel underrepresented. (n=1)

**(2) Do you feel the interests and concerns you represented at the task force meeting were fairly considered?**

Yes (n=7)

- I think yes, because my interest is similar to the majority on the task force and, therefore, will be considered. (n=1)

No (n=1)

- Paul wants more deer because he pushed for a small percent of decline in the deer population. (n=1)

Don't know (n=1)

- Everyone listened to my presentation and was attentive, but I don't know if my concerns were fairly considered. (n=1)

**(3) What modifications, if any, would you recommend for this meeting or the next meeting?**

- No modifications are necessary for this meeting or the next meeting. (n=2)
- At the next meeting, we need to continue discussing some interesting information that had been kept from us until nearly the end of the meeting. We are approaching this problem from the wrong end. The facts and figures about how many acres of land suitable for deer and the number of deer supported per acre of land is quantified evidence that was slipped into the discussion as if an aside. We need to pursue this at the next meeting. (n=1)

Rules and Guidelines (n=2)

- Clearer guidelines need to be given to task force members for collecting responses from the public. Reports of findings from the task force members had nothing in common. It was difficult to compare the findings, like comparing apples and oranges. For example, one member may have collected 100 responses, another talked to 3 people who did not belong to he/she stakeholder interest because he/she did not understand who he/she was representing. (n=1)

- The representation of forest owners on this task force needs to be reconsidered. Many forest owners live in DMU 96, but their property lies outside the unit. Perhaps the forest owner on the task force could be a representative in another unit. Or he could stay with the DMU 96 task force, and learn and listen to task force discussions. I don't know how task force members were selected to serve for this unit. (n=1)
- More clarification is needed on the rules for attending the task force, and those rules should be followed. For instance, I understood members would NOT be allowed to send a substitute if unable to attend a meeting. (n=1)

#### Reaching a Consensus (n=3)

- More clarification is needed about what "operating by consensus" means. We talked about several issues, but there was a minimal attempt to reach a consensus. We need more direction for the discussion. The facilitator needs to "poll" the members more frequently to see how close we are to reaching an agreement. (n=1)
- We need some incentive for people to make a decision. The meeting in general is going very well considering the factions involved. (n=1)
- Some people were more vocal than others. [Paul] needs to go around the room and let more people get involved in the discussion or finalize a decision. (n=1)

#### **Additional Comments and Observations:**

##### Outcomes from the Process (n=4)

- Because this is a very political issue, ultimately it will take some educational effort to inform people about the deer population. No one likes the prospect of starving deer, even if they are eating us out of house and home. (n=1)
- This is a different unit than most. The problem is DEC has its hands tied and can not do much because of county ordinances, i.e., Irondequoit doesn't allow archery hunting. But we have got to try. (n=1)
- The hang-up with this process is, what's going to come out of this work? The question was asked at the meeting, but I don't think it was answered adequately. The politics involved in this issue are complex, and the issue has been talked about for years. Is there anything of value that is going to result from this, especially in the Irondequoit situation? (n=1)
- We don't know what action DEC will take from this, and I am concerned because we may recommend an unconventional recommendation. (n=1)

Reaching a Consensus (n=5)

- As a British prime minister once said, "there are lies, damn lies, and statistics." We can statistic this to death, but we need to bite the bullet and make a recommendation. We know that deer are overpopulated in this area. (n=1)
- When different personalities are at a meeting, it is difficult to keep them on track. I don't know how the task force will end up. (n=1)
- Everyone is waiting for information from the deer count by helicopter, but I don't think the count will take place this spring. It must snow at least 4 inches, and it's too late in the year for that much snow (snowfall improves visibility for spotting the deer). (n=1)
- The issues of reducing the deer herd versus the target deer population hung up the process. Task force members could not make an informed decision because they don't know the implications of reducing the deer population. (n=1)
- It struck me that there was much discussion about how to manage deer, the statistical approaches, etc., when in fact the statistical data hasn't been proven. The meeting should be less technical. The population size of the deer herd, how many deer can be removed safely, effect of reducing the deer herd on reducing the acutal number of deer-car accidents—none of this is proven. We need to focus on "this is what we hope to do and how to do it" instead of the statistics to support an argument. (n=1)

Miscellaneous (n=3)

- Paul is doing a good job on the consensus process. (n=1)
- I am being mailed some new information from a nonprofit organization that used tranquilizers to kill deer on the spot, yet the meat is edible for donating to the poor and needy. The tranquilizing solution undergoes an enzyme decomposition within 6 hours of injection that makes the meat edible. (n=1)
- I have been to deer meetings for so many years that this is old hat. (n=1)
- It was a very lively meeting, and some things said made sense. (n=1)

APPENDIX I

Results from Telephone Interview #3

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## DMU 96 FEEDBACK FROM TASK FORCE MEMBERS

### Summary of Comments About Meeting 4

Six of seven task force members who attended the April 23 meeting were interviewed by telephone from April 28 - 30, 1992. A summary of responses to three questions are described below. The total number of responses for each question may be greater than the total number of task force members, because some members provided more than one response to the question.

**(1) So far, what have been the most impressive and least impressive aspects of the task force process?**

Most impressive:

- Surprised that the task force could change people's minds about wildlife management. (n=1)
- How Paul is able (in his own quiet way) to move the task force forward in reaching a consensus and bring about a decision from the group. (n=1)
- Paul as a facilitator and how he has worked with a consensus model. (n=1)
- Impressed that some people who prefaced their remarks with not wanting any deer killed are coming around to the group. I think these people are being educated and open-minded about deer and deer management. The group can disagree but in a friendly manner. (n=1)
- The consensus process worked pretty well with the mix of different interests. I think we are reaching a reasonable decision, not a lot of rhetoric. (n=1)
- The task force is reaching an intelligent decision and is a worthwhile activity. (n=1)
- I learned new information about techniques to manage deer, for instance how they manage deer in the New Jersey suburbs mentioned at the last meeting. (n=1)

Least impressive:

- Nothing is least impressive. (n=3)
- Disappointed that the attendance has dropped. (n=1)

- I don't have a clear understanding about what type of commitment the government organizations (DEC and town governments) will have for carrying out the process. (n=1)
- The amount of time it takes to move the process along. It requires many meetings to make small steps. (n=1)
- The task force members appeared to have a biased perspective that will not change. For instance, if they have an agriculture background, their perspective about deer from an agriculture viewpoint is not going to change.

(2) If, on a scale of 1 to 5, 1 is very fair and balanced and 5 is very unfair and unbalanced, how would you rate the following aspects of the last meeting?

- **Presentation by Mike Richmond from Cornell University about deer management options.**

<u>rating</u>	<u># respondents</u>
1	3
2	1
3	2

- **Discussion by task force members at the meeting.**

<u>rating</u>	<u># respondents</u>
1	4
2	1
3	1

- **Written materials distributed at the meeting and between meetings.**

<u>rating</u>	<u># respondents</u>
1	2
2	2
3	1
4	-
5	1

(3) How could the presentation, discussion by task force members or written materials been improved?

- No suggestions (n=1)

Presentation:

- The presentation could have been more formal. It would have been better if the presenter would have used some visual aids. The presenter just talked off-the-cuff. (n=1)

Task force discussion:

- The only weakness is the possible exclusion of environmental activists and their opinions, e.g., the Nature Conservancy and the Sierra Club. (n=1)
- People are coming into the task force process with a preconceived idea about what they want. However, I would like to qualify my statement by saying these people on the task force are open-minded. (n=1)

Materials:

- The materials are very timely, and should be distributed before the meetings. The article distributed at the last meeting would have been more beneficial if we had received it before the meeting. (n=1)
- The data about contraception needs to be updated. The pamphlet about deer management options was a little out-of-date when discussing fertility controls. (n=1)
- The materials need to be updated. For instance, the 4-page article from 1988 about the New Jersey community is not the most current information. (n=1)
- The materials are bias toward hunting as the solution to the problem. However, in our particular locale, hunting is not appropriate because it has limited utility in the area I live. Hunting may be appropriate in other areas, but not here. If hunting had been routinely done in Irondequoit, then perhaps we wouldn't have the problem that we currently have. (n=1)
- The materials are of good quality, but the information is biased. (n=1)

Additional Comments:

- The DEC people are real nice. I now read the Conservationist magazine from a different viewpoint. (n=1)
- If task forces are formed in other locations in the state, I would suggest adding legislators as task force members so that they would have some ownership into the process. (n=1)
- There is a need for more creativity to address the issues. (n=1)
- DEC has not taken the lead for particular options. DEC will be faced with similar issues more and more in urban areas across the state in the future. DEC needs to be open to creative solutions. (n=1)
- What may or may not be impressive is the next meeting with the government officials, and finding out if they actually will accept the recommendation and take action. (n=1)

- I have a question. Were the media intentionally excluded from this process? Don't get me wrong, I think this is a positive aspect of the task force, instead of what happens when issues are debated piece meal in the paper, or if the small aspects of the task force would be distorted by the media as the process is going on. Media involvement tends to polarize the members and brings out emotions. However, it is interesting to me that we might be excluding people who would want input into the process. (n=1)
- We need up-to-date information that is presented in an unbiased way. Are we just here to rubber stamp and endorse DEC's decision? DEC would like hunting in the park. However, the task force has not solely focused on hunting. Task force members are more open than DEC. DEC discredited what the expert said about the helicopter counts by comparing the data with the number of deer hit by cars. The task force bought into the idea that there were more deer than indicated by the helicopter count. (n=1)
- This last meeting was the best meeting that I have attended. (n=1)
- Please change the refreshments to something other than doughnuts. (n=1)

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**APPENDIX J**

**DEC Communication Strategy**

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July 23, 1992

**\*DEC PROPOSED DRAFT \***  
(For Review and Comment by the Citizen Task Force)

**DMU 96  
PUBLIC INVOLVEMENT PLAN**

The following plan is a strategy of action for DEC and the Task Force in a combined effort to meet DMU 96 communication goals and objectives. To meet the communication objectives, various activities are being considered.

**Program Goal**

To provide DEC with deer population objectives for DMU 96, and to foster action to resolve problems created by too many deer, particularly in the Town of Irondequoit.

**Communication Goal**

To build support of the Task Force constituency and the community for the Task Force recommendations and future agreements for action developed by local government decision-makers.

**Communication Objectives**

To continue communication with and facilitate the cooperation of local governments, in order to provide a safe and cost-effective suburban deer management program for DMU 96.

To provide education and information opportunities on deer and other wildlife management issues for affected and interested people and policy-makers.

To keep the media fact-informed and encourage high visibility of the Task Force.

**Public Identification**

The primary publics targeted include:

The membership of organizations and interests reflected by Task Force members who are directly affected or concerned about deer management in DMU 96.

The residents and landowners in DMU 96 directly affected by the current deer population.

Local government officials.

Other individuals and groups with general interest.

**DEC COMMUNICATION ACTIVITIES**

**A. Local Government and Task Force Support Efforts:**

1. DEC will continue to meet with government officials in DMU 96 responsible for implementing a deer management action in the Town of Irondequoit.

2. DEC highly supports the work accomplished by the DMU 96 Task Force in researching and discussing preferred options and interfacing with municipal officials.
3. DEC would like to support a deer management activity that is agreeable to both the Task Force, which reflects a diversity of interests in DMU 96, and local government.
4. DEC supports continuing the Task Force process into fall in order to finalize the recommendations, and encourage further discussion with municipal officials, who should be invited to participate in the process as technical advisors and observers.

**B. *Increase and Improve the Information in the Community about Deer Management:***

DEC and the Task Force recognize the need for the DMU 96 community to understand why deer population regulation is an important aspect of DEC's Wildlife program, and why wildlife management is necessary in suburban areas like DMU 96 where deer-people conflicts are increasing.

1. DEC will produce at least three informational articles for general publication and distribution covering key topics that were addressed at Task Force meetings. Distribution will occur through Task Force members and the media.
2. DEC officials encourage Task Force members to invite DEC staff to their membership meetings as part of a program to improve the level of information on deer management to key audiences in the community.
3. DEC will update its slide presentation for use at presentations in the fall.
4. DEC will hold an informational workshop on suburban deer management problems and solutions, which will include a presentation by the Task Force on their recommendations (See C, No. 3).

**C. *Encourage High Visibility of the Task Force and Their Recommendations:***

DEC will provide written materials and plan public and media events to encourage high visibility of the Task Force, their recommendations, and their role in the deer management process.

1. DEC visualizes the activities of the Task Force to begin in late August with a meeting (including the technical and municipal advisors) to finalize the Task Force recommendations. These recommendations will be distributed to all government levels soon after they are finalized (with an invitation to participate in a press conference two weeks following).
2. DEC will arrange a press conference with the Task Force to:
  - a. officially present their recommendations to the press;
  - b. make a statement encouraging support and action on the deer management issue by government officials;

- c. be available for questions and discussion on the Task Force process and the resulting recommendations; and
  - d. local officials will be encouraged to join DEC and provide their own statements regarding the recommendations. Ideally, the recommendations will reflect a near-to-confirmed action agreeable to all local officials, and each official will be able to provide a similar statement supporting a preferred action and the Task Force process.
3. DEC will coordinate a three-hour public workshop on deer management. The purpose is to provide Task Force member organizations and other interested citizens to become better acquainted with deer management in suburban areas, and learn about the Task Force's role in addressing DMU 96 concerns. The workshop would ideally provide an overview of suburban deer problems and solutions including:
  - a. an updated deer management slide show (by DEC);
  - b. examples of suburban deer problems in other areas and how they were resolved;
  - c. statistics and key facts about DMU 96 and what factors are considered when dealing with the DMU 96 deer population (by Cornell professor perhaps);
  - d. a report from the Task Force members on the Task Force process, the information that was assessed, the deer management options considered, and the reasons for selecting specific actions;
  - e. time for participants to ask questions and provide input; and
  - f. a field trip sign-up. If interest warrants, a field trip would be scheduled.
4. DEC will prepare an executive summary of the Task Force recommendations for distribution to the Task Force member constituency, the workshop participants, and other interested groups or individuals.
5. DEC would like to schedule a set of television and radio interviews with Task Force members and DEC staff to talk about the Task Force process and the recommendations.
6. DEC will review the final recommendations and issue a public response supporting the process.



