

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT**

**Shooting white-tailed deer to contribute to
deer population reduction objectives in New Jersey**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), Wildlife Services (WS) program responds to requests for assistance from individuals, organizations and agencies experiencing damage caused by wildlife in New Jersey. WS has prepared an environmental assessment (EA) that analyzes alternatives for responding to a request from the New Jersey Division of Fish and Wildlife (Division) to assist them in achieving their deer population objectives in eight west-central NJ deer management zones. In agricultural areas, New Jersey Public Law 2000, Chapter 46 enables responsible authorities such as County Boards of Agriculture to apply to the Division to designate special deer management areas where crop damage is attributable to an overpopulation of deer. The law also allows for the development of community based deer management plans that provide for participating entities such as WS to use alternative control methods to achieve deer population reductions.

Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions are categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003, 1995). An EA was prepared in this case to facilitate planning, interagency coordination, and the streamlining of program management, and to clearly communicate with the public the analysis of cumulative impacts. The predecisional EA released by WS in February 2000 documented the need for white-tailed deer damage management in the proposed project area (deer management zones 5, 7, 8, 10, 11, 12, 14, and 41) and assessed potential impacts of various alternatives for responding to the Division's request for assistance. The EA is tied to the programmatic Environmental Impact Statement (EIS) for the Wildlife Services Program¹ (USDA 1994).

WS's Proposed Action is to assist the Cooperating Agency, the Division, in meeting their management goal of maintaining deer densities that are compatible with land use. Specifically, WS' biological staff would attempt to reduce the deer population by shooting deer in designated special deer management areas that have experienced crop damage caused by an overpopulation of deer. WS activities would be conducted only as requested by County Boards of Agriculture, pursuant to Division-issued permits, and with written farmer/landowner consent. Based on the analysis in the EA, I have determined that there will not be a significant impact, individually or cumulatively, on the quality of the human environment from implementing the proposed action, and that the action does not constitute a major federal action significantly affecting the quality of the human environment.

Public Involvement

The predecisional EA was released to the public for a 30-day comment period, and was mailed directly to agencies, organizations, and individuals with probable interest in the proposed program. During the comment period, the document was sent to one additional organization and two individuals. Twenty-eight comment documents (via regular and e-mail) were received by WS within the comment period. All comments and issues contained in the comment documents were fully considered in the development of the EA. Six issues were contained in the comment documents, and pertinent sections of the EA were modified (App. F).

Issue 1 Effectiveness of Shooting Deer and Compensatory Reproduction (Present in 7 comment documents. Text modified: Section 4.1.1.2).

Issue 2 The Division's Past and Current Program Goals (Present in 3 comment documents. Text modified: Section 1.2.1.1 and 1.2.1.3).

Issue 3 Nonconsumptive Values of Deer (Present in 3 comment documents. Text modified: Sections 1.2.1.1 and

¹ USDA (U.S. Department of Agriculture), Animal and Plant Health Inspection Service (APHIS), Animal Damage Control (ADC). 1994. Animal Damage Control Program, Final Environmental Impact Statement. Anim. Plant Health Inspection Serv., Anim. Damage Control. Hyattsville, MD. Volume 1, 2 & 3.

1.2.1.3.

Issue 4 Control of Deer Reproduction and Other Nonlethal Methods as Population Management Tools. (Present in 16 comment documents. Text modified: Sections 2.1.5, 3.3.3, 3.3.4, 3.4.2.5, and 4.1.5).

Issue 5 Human Safety and Private Property Rights. (Present in 7 comment documents. Text modified: Sections 1.3.2, 3.1.2, 3.4.1, 3.4.2.3, and 4.1.3).

Issue 6 Quantification of Deer Damage, Deer Population Size, and Effectiveness of the Proposed Program (Present in 3 comment documents. Text modified: Sections 1.2.1.2, 1.2.2, 1.2.1.4, 1.3.2, and 3.1.2).

Major Issues

Several major issues were contained in the scope of this EA. These issues were consolidated into the following 6 primary issues to be considered in detail:

1. Effects on target deer population
2. Effects on nontarget species populations, including T&E species
3. Effects on human health and safety
4. Effects on aesthetics
5. Humaneness and animal welfare concerns
6. Effects on regulated deer hunting

Alternatives Analyzed in Detail

Two potential alternatives were developed to address the issues identified above. Four additional alternatives were considered but not analyzed in detail. A detailed discussion of the anticipated effects of the alternatives on the objectives and issues is contained in the EA. The following summary provides a brief description of each alternative and its anticipated impacts.

Alternative 1. No Action/ Current Program.

This alternative would consist of no WS involvement in managing white-tailed deer in NJ. Farmers would conduct integrated deer damage management programs that would include shooting deer pursuant to permit, hunting, and use of fencing, repellents, harassment and other tools and approaches to reduce local deer populations and associated crop damage. The degree to which shooting of deer by farmers and hunters would achieve Division-established population objectives would vary, but historically, these methods have not resulted in desired reductions. This alternative would have no effect on T&E species, habitats, or ecosystems. Deer would continue to occur in all eight zones, although some people, who have formed affectionate bonds with individual deer may be adversely affected if those deer were removed by hunters or farmers. Shooting of deer by hunters and farmers is considered humane by most, but others may consider any method of killing deer to be inhumane.

Alternative 2. Proposed Action/ WS Shoots Deer.

The Proposed Action is for WS to shoot deer to contribute to deer population reduction objectives in eight deer management zones in NJ. In most cases, WS shooting of deer would occur as part of community based deer management plans for special deer management areas as described in NJ Public Law 2000, Chapter 46 (C.23:4-42.3-.7). Under the Proposed Action, farmers would continue to employ shooting (under permit), hunting, fencing, harassment, and use of repellents to attempt to reduce deer populations and crop damage. The only difference between the No Action and Proposed Action alternatives is that WS personnel would also shoot deer, and would do so pursuant to Division-issued permit, requests from County Boards of Agriculture, and written farmer/landowner consent. Alternative methods would be employed, such as specialized equipment (firearms) to optimize safety, humaneness, and efficiency. Shooting will be conducted from elevated positions. Under the Proposed Action, there would be less opportunity to view deer, which may affect individuals who enjoy viewing deer. Shooting of deer by WS biologists, hunters, and farmers would be considered humane by most people, but others may consider any method of killing deer to be inhumane. WS biologists are specifically trained and accountable for humane treatment of wildlife. Threatened and endangered species are not expected to be impacted by this alternative. The likelihood of approaching or achieving the Division's deer population reduction objective would be greater for this alternative, as compared to the No Action Alternative. Deer damage to crops would most likely be reduced on

farms where WS personnel shoot deer. Deer would continue to occur in all eight zones, although at lower levels.

Alternatives considered but not analyzed in detail were:

WS Provision of Technical Assistance and/or Nonlethal Operational Assistance. This alternative would require that WS implement only nonlethal strategies or methods. This alternative was not considered in detail because the Division has not requested this assistance from WS. Since the Division has the regulatory authority to manage NJ's deer population, WS responds to the Division's specific request, which was to assist them by shooting deer. WS has no authority to require that the Division implement any specific methods or groups of methods. Integrated deer management programs are being conducted on NJ farms experiencing crop damage, and include shooting, hunting, repellents, fencing, and harassment.

Division Compensates Farmers for Deer Damage Losses. This alternative was eliminated from further analysis because no federal/State laws, regulations, policies, programs, or funding exists to authorize this action. Additionally, compensation does not reduce deer damage to crops, it may be an incentive to minimize the use of other, nonlethal techniques, and because the amount of money required would be excessive and increasing, as deer damage would increase in the absence of deer population management.

Deer Population Reduction Through Reproductive Control. Although reproductive control technologies have been researched since at least the 1970's, to date, there is no method, technique, or material available for use on free-ranging white-tailed deer that has proven to reduce the population to desired levels. Research on wildlife sterilization and contraception tools has so far concentrated on development of materials and delivery systems, not on the effectiveness of materials in achieving population reduction in wild populations. Clinical and pen trials (with confined herds) are and will be conducted for the use of PZP and gene therapy to control reproduction in white-tailed deer. Research opportunities for the future involve developing materials and techniques that 1. Enable treatment of a sufficient number of females to affect population reduction, 2. Do not pose threats to human health via food chain contamination, and 3. Satisfy logistical, economic, and sociocultural concerns regarding the handling, marking, and treating of target individual deer and populations. Population modeling indicates that reproductive control is more efficient than lethal control only for some rodent and small bird species with high reproductive rates and low survival rates. Because there is no tool currently available, and other constraints, this alternative is not given further consideration.

Trap and Relocate Deer. This alternative would involve capturing deer alive using cage-type traps followed by relocation of the captured deer to another area. Population reduction achieved through capture and relocation is labor intensive, and would be costly (\$273-\$2,876/deer) (O'Bryan and McCullough 1985, Bryant and Ishmael 1991). Physiological trauma and deer mortality during capture and transportation would be high and deer mortality after translocation has ranged from 25-89% (Jones and Witham 1990, Mayer et al. 1993). The American Veterinary Medical Association, The National Association of State Public Health Veterinarians, and the Council of State and Territorial Epidemiologists opposes relocation of mammals because of the risk of disease transmission (USDA 1993). High mortality rates of relocated deer, combined with the manner in which many of these animals die, make it difficult to justify relocation as a humane alternative to removal methods (Bryant and Ishmael 1991).

The effects of implementing the proposed action, when added to the other past, present, and reasonably foreseeable future actions, will not significantly affect the quality of the human environment. This determination takes into consideration the following factors:

1. Deer population management conducted by WS, as requested by the Division and County Boards of Agriculture, in the State of New Jersey, is not regional or national in scope.
2. Based on the analysis documented in the EA, the impacts of the proposed action will not significantly affect public health or safety. Risks to the public from WS methods were determined to be low in a formal risk assessment (USDA 1994, Appendix P).

3. The proposed action will not have a significant impact on unique characteristics such as park lands, wetlands, wild and scenic areas, or ecologically critical areas. Mitigation measures that are part of WS's standard operating procedures and compliance with laws and regulations will further ensure that WS activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although certain individuals may be opposed to killing deer, this action is not controversial in relation to size, nature, or effects. Based on consultations with the State wildlife management and agricultural authorities, the proposed action is not likely to cause disagreement among the resource management agencies.
5. Mitigation measures adopted and/or described as part of the proposed action minimize risks to the public, prevent adverse effects on the human environment, and reduce uncertainty and risks. Effects of methods and activities, as proposed, are known and do not involve uncertain or unique risks.
6. The proposed action does not establish a precedent for future actions. This action would not set a precedent for future white-tailed deer damage management that may be implemented or planned within the State.
7. The number of deer that will be taken by WS annually is very small in comparison to total populations, and the number of deer annually removed by hunters and farmers (as well as other landowners). Adverse effects on other wildlife species and on wildlife habitat would be minimal.
8. The EA discussed cumulative effects of WS on target and nontarget species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State.
9. This action will not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places and will not cause loss or destruction of significant scientific, cultural, or historic resources. Wildlife damage management would not disturb soils or any structures and therefore would not be considered a "Federal undertaking" as defined by the National Historic Preservation Act.
10. The taking of target species in the State is not an irretrievable or irreversible loss of a resource. The environmental consequences chapter of the EA discusses the effects of the proposed action and concludes that WS take of target species is insignificant to overall populations.
11. WS determined that the proposed project would not affect Federally listed threatened or endangered species. The Division determined that the proposed action would not adversely impact any of the State-listed T&E species or their habitats and ecosystems.
12. The proposed action is consistent with local, state, and federal laws that provide for or restrict WS activities and programs. Therefore, WS concludes that this project is in compliance with Federal, State and local laws for environmental protection.

DECISION

I have carefully reviewed the Environmental Assessment (EA) prepared for this proposal, and it is my determination that the proposed action does not constitute a major Federal action and will not significantly affect the quality of the human environment. As such, an environmental impact statement will not be prepared. Therefore, it is my decision to implement the proposed action as described in the EA. Copies of the EA are available upon request from USDA, APHIS, WS, 140-C Locust Grove Rd., Pittstown, NJ 08867.

Gary E. Larson
Director, Eastern Region, USDA-APHIS-WS

October 25, 2000
Date