

**DECISION  
AND  
FINDING OF NO SIGNIFICANT IMPACT**

**ENVIRONMENTAL ASSESSMENT – MAMMAL DAMAGE MANAGEMENT  
IN THE KENTUCKY WILDLIFE SERVICES PROGRAM**

**I. INTRODUCTION**

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program prepared an Environmental Assessment (EA) entitled “*Mammal Damage Management in the Kentucky Wildlife Services Program*” to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage and threats of damage caused by mammals to agricultural resources, property, natural resources, and human safety in Kentucky. The EA documents the need for mammal damage management in Kentucky and assesses potential impacts on the human environment of three alternatives to address that need. WS’ proposed action in the EA implements an integrated damage management program to fully address the need to manage mammal damage while minimizing impacts to the human environment.

Mammal species addressed in the EA include: beaver (*Castor canadensis*), red fox (*Vulpes vulpes*), gray fox (*Urocyon cinereoargenteus*), muskrat (*Ondatra zibethicus*), raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), groundhogs (*Marmota monax*), Virginia opossums (*Didelphis virginianus*), cottontail rabbits (*Sylvilagus floridanus mearnsii*), feral cats (*Felis domesticus*), feral dogs (*Canis familiaris*), river otter (*Lutra canadensis*), tree squirrels (*Sciurus* spp.), black bear (*Ursus americanus*), bobcat (*Lynx rufus*), feral swine (*Sus scrofa*), mink (*Mustela vison*), chipmunk (*Tamias striatus*), moles (*Scalopus aquaticus* and *Condylura cristata*), spotted skunk (*Spilogale putoris*), various bat species (See Table 4-2 in the EA), and small rodents including voles (*Microtus* spp.), rats (*Rattus* spp.), and mice (*Mus musculus* and *Peromyscus* spp.).

The EA was prepared to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by mammals, and 4) clearly communicate to the public the analysis of individual and cumulative impacts. This Decision ensures WS’ actions comply with NEPA, with the Council on Environmental Quality (40 CFR 1500), and with APHIS’ NEPA implementing regulations (7 CFR 372). All mammal damage management activities, including disposal requirements, are conducted consistent with: 1) the Endangered Species Act of 1973, 2) Executive Order (EO) 12898<sup>1</sup>, EO 13045<sup>2</sup>, and EO 13112<sup>3</sup>, 3) the Federal Insecticide, Fungicide, and Rodenticide Act, and 4) federal, state, and local laws, regulations and policies. The pre-decisional EA was made available to the public for review and comment through notices published in local media and through direct notification of interested parties. Comments from the public involvement process were reviewed for substantive issues and alternatives which were considered in developing this Decision for the EA.

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<sup>1</sup> Executive Order 12898 promotes the fair treatment of people of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

<sup>2</sup> Executive Order 13045 ensures the protection of children from environmental health and safety risks since children may suffer disproportionately from those risks.

<sup>3</sup> Executive Order 13112 states that each federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law; 1) reduce invasion of exotic species and the associated damages, 2) monitor invasive species populations, provide for restoration of native species and habitats, 3) conduct research on invasive species and develop technologies to prevent introduction, and 4) provide for environmentally sound control, promote public education on invasive species.

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). Wildlife damage management is the alleviation of damage caused by or related to the presence of wildlife and is regarded as an integral part of wildlife management (The Wildlife Society 1992). The goal of wildlife damage management conducted by WS is to respond to requests for assistance to manage damage and threats to human safety caused by wildlife.

## **II. PUBLIC INVOLVEMENT**

The pre-decisional EA was prepared and released to the public during a 30-day comment period through legal notices in *The State Journal* that were published for three consecutive days beginning on December 5, 2007. A notice of availability and the pre-decisional EA was also posted on the APHIS website at [http://www.aphis.usda.gov/wildlife\\_damage/nepa.shtml](http://www.aphis.usda.gov/wildlife_damage/nepa.shtml) for 30 days for review and comment. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in mammal damage management in Kentucky. No comments were received during the public involvement process. All documents associated with the public involvement period are maintained at the WS' state office in Tennessee.

## **III. MONITORING**

The WS' program will annually review mammal damage management activities in Kentucky to ensure WS' actions are within the scope of analyses provided in the EA. Those annual monitoring reports will document WS' annual activities while discussing any new information that becomes available since the completion of the EA and the last monitoring report. If WS' activities, as identified in the annual monitoring reports, are outside the scope of the analyses in the EA or if new issues are identified from available information, further analyses would occur and to the degree as identified by those processes pursuant to NEPA.

## **IV. AFFECTED ENVIRONMENT**

Areas of the proposed action could include, but are not limited to, state, county, municipal and federal natural resource areas, park lands, and historic sites; state and interstate highways and roads; railroads and their right-of-ways; property in or adjacent to subdivisions, businesses, and industrial parks; timberlands, croplands, and pastures; private and public property where burrowing mammals cause damage to structures, dikes, ditches, ponds, and levees; public and private properties in rural/urban/suburban areas where mammals cause damage to landscaping and natural resources, property, and are a threat to human safety through vehicle collisions and the spread of disease. The area of the proposed action would also include airports and military airbases where mammals are a threat to human safety and to property; areas where mammals negatively impacts wildlife, including T&E species; and public property where mammals are negatively impacting historic structures, cultural landscapes, and natural resources. The proposed action may be conducted on properties held in private, municipal, county, state, or federal ownership.

## **V. MAJOR ISSUES**

The EA describes in detail the issues considered and evaluated. In addition to the identified major issues considered in detail, six issues were considered but not in detail, with rationale in the EA. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

## *Issue 1 - Effects on Wildlife*

Under the proposed action, WS would incorporate non-lethal and lethal methods in an integrated approach in which all or a combination of methods may be employed to resolve a request for assistance. WS would recommend both non-lethal and lethal methods to interested individuals, as governed by federal, state, and local laws and regulations. Non-lethal methods can disperse or otherwise make an area unattractive to mammals causing damage thereby, reducing the presence of those mammals at the site and potentially the immediate area around the site where non-lethal methods are employed. Non-lethal methods would be given priority when addressing requests for assistance. However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed appropriate by WS' personnel or cooperating entities.

Lethal methods would be employed to an individual mammal or a group of mammals responsible for causing damage or threatening human safety. The use of lethal methods would therefore result in local reductions of those mammals targeted in the area where damage or threats were occurring. The number removed from the population using lethal methods under the proposed action would be dependent on the number of requests for assistance received, the number of mammals involved with the associated damage or threat, and the efficacy of methods employed. The EA concluded that WS' activities when conducted within the scope analyzed would not adversely impact populations of target species.

The issue of non-target species effects, including effects on T&E species arises from the use of non-lethal and lethal methods identified in the alternatives. The use of non-lethal and lethal methods has the potential to inadvertently disperse, capture, or kill non-target wildlife. WS' minimization measures and SOPs are designed to reduce the effects of mammal damage management activities on non-target species' populations. To reduce the risks of adverse affects to non-target wildlife, WS selects damage management methods that are as target-selective as possible or apply such methods in ways to reduce the likelihood of capturing non-target species. Before initiating management activities, WS also selects locations which are extensively used by the target species and employs baits or lures which are preferred by those species. Despite WS' best efforts to minimize non-target take during program activities, the potential for adverse affects to non-targets exists when applying both non-lethal and lethal methods to manage damage or reduce threats to safety.

Non-lethal methods have the potential to cause adverse affects on non-targets primarily through exclusion, harassment, and dispersal. Any exclusionary device erected to prevent access of target species also potentially excludes species that are not the primary reason the exclusion was erected. Therefore, non-target species excluded from areas may potentially be adversely impacted if the area excluded is large enough. The use of auditory and visual dispersal methods used to reduce damage or threats caused by target species are also likely to disperse non-targets in the immediate area the methods are employed. Therefore, non-targets may be dispersed from an area while employing non-lethal dispersal techniques. However, like target species, the potential impacts on non-target species are expected to be temporary with target and non-target species often returning after the cessation of dispersal methods.

The lethal take of non-targets from using those methods described in the EA is unlikely with take never reaching a magnitude that a negative impact on populations would occur. Any potential non-targets live-captured using non-lethal methods would be handled in such a manner as to ensure the survivability of the animal if released. The potential adverse affects associated with non-lethal methods are negligible and, in the case of exclusion and harassment methods, often temporary. The use of firearms is virtually 100% selective for target species since animals are identified prior to application; therefore no adverse impacts are anticipated from use of this method. The use of chemical methods, when used according to label directions, poses minimal hazards to non-target wildlife (USDA 1997).

While every precaution is taken to safeguard against taking non-targets during operational use of methods and techniques for resolving damage and reducing threats caused by wildlife, the use of such methods can result in the incidental take of unintended species. Those occurrences are minimal and should not affect the overall populations of any species. WS' take of non-target species during activities to reduce damage or threats to human safety caused by mammal species is expected to be extremely low to non-existent. WS will continue to monitor annually the take of non-target species to ensure program activities or methodologies used in mammal damage management do not adversely impact non-targets. WS' activities are not likely to adversely affect the viability of any wildlife populations from damage management activities.

### ***Issue 2 - Effects on Human Health and Safety***

The EA concluded that the proposed action using an integrated mammal damage management program would likely result in a reduction in threats to public health and safety caused by mammals in Kentucky. The EA also concluded that WS' mammal damage management activities when conducted within the scope analyzed would not cause any adverse impacts to public health and safety.

WS' mitigation measures and SOPs are designed to minimize the risks of mammal damage management activities on human safety. A risk assessment conducted during the development of WS' programmatic FEIS determined the risks to human safety from non-chemical methods were low (USDA 1997). When chemical methods are employed as directed by label requirements and by WS' directives, those methods will have no adverse impacts on human safety. The use of chemical and non-chemical methods would not result in adverse effects on human safety.

### ***Issue 3 - Effects on the Socio-cultural Elements and Economics of the Human Environment***

As analyzed in the EA, WS would employ methods when requested that would result in the dispersal, exclusion, or removal of individuals or small groups of target mammal species to resolve damage and threats. In some instances where mammals are dispersed or removed, the ability of interested persons to observe and enjoy those mammals would likely decline temporarily. The presence of mammals in areas where mammals were dispersed will likely increase upon cessation of damage management activities.

Even the use of exclusionary devices can lead to dispersal of mammals if the resource being damaged was acting as an attractant. Thus, once the attractant has been removed or made unavailable, mammals will likely disperse to other areas where resources are more vulnerable.

The use of lethal methods would result in temporary declines in local populations resulting from the removal of those mammals responsible for causing damage that resulted in a request for assistance. WS' goal is to respond to requests for assistance and to manage only those mammals responsible for the resulting damage. Therefore, the removal of mammals would result in localized declines in the presence of those mammal species targeted. However, the overall populations of those target species would not be impacted. Based on the localized decline in the presence of target mammal species, the EA concluded the effects on aesthetics would be variable depending on the stakeholders' values towards wildlife. However, the ability to view and enjoy mammals in Kentucky would still remain if a reasonable effort is made to locate mammals outside the area in which damage management activities occurred.

### ***Issue 4 - Effects on Wetlands***

A common issue when addressing flooding of resources and damage caused by beaver is the effects of dam removal on the status of impounded water as potential wetlands. If beaver dams are allowed to persist, impounded water can create conditions over a period of time that could qualify as a wetland under

Section 404 of the Clean Water Act and the wetland conservation provisions of the 1985 and 1990 farm bills. Beaver dam removal activities are conducted primarily on small watershed streams, tributary drainages, and ditches. Those activities can be described as small, exclusive projects conducted to restore water flow through previously existing channels.

In the majority of instances, beaver dam removal is accomplished by manual methods (i.e., hand tools). In some instances, binary explosives are utilized to breach dams. WS' personnel do not utilize heavy equipment, such as trackhoes or backhoes, for beaver dam removal. Only the portion of the dam blocking the stream or ditch channel is breached. In some instances, WS' activities involve the installation of structures to manage water levels at the site of a breached beaver dam.

If the area does not have hydric soils, it usually takes many years for them to develop and a wetland to become established; this often takes greater than 5 years as indicated by the Swampbuster provision of the Food Security Act. Most beaver dam removal by WS is allowed under exemptions stated in 33 CFR parts 323 and 330 of Section 404 of the Clean Water Act or parts 3821 and 3822 of the Food Security Act. However, the removal of some beaver dams can trigger certain portions of Section 404 that require landowners to obtain permits from the U.S. Army Corps of Engineers prior to removing a blockage. WS' personnel determine the proper course of action upon inspecting a beaver dam impoundment. Appendix B in the EA describes the procedures used by WS to assure compliance with the pertinent laws and regulations.

Since most requests for assistance to alleviate flooding occur from recently impounded water, conditions qualifying the flooded area as a wetland are not likely to occur. Therefore, WS' removal of beaver dams either through hand tools or explosives will have no impact on wetlands in Kentucky.

#### ***Issue 5 – Humaneness of Methods Used by WS***

As analyzed in the EA, humaneness, in part, appears to be a person's perception of harm or pain inflicted on an animal. People may perceive the humaneness of an action differently. The challenge in coping with this issue is how to achieve the least amount of animal suffering within the constraints imposed by current technology and funding.

Some individuals believe any use of lethal methods to resolve damage associated with wildlife is inhumane because the resulting fate is the death of the animal. Others believe that certain lethal methods can lead to a humane death. Others believe most non-lethal methods of capturing wildlife to be humane because the animal is generally unharmed and alive. Still others believe that any disruption in the behavior of wildlife is inhumane. With the multitude of attitudes on the meaning of humaneness, the analyses must consider the most effective way to address damage and threats caused by wildlife in a humane manner. WS is challenged with conducting activities and employing methods that are perceived to be humane while assisting those persons requesting assistance to manage damage and threats associated with wildlife. The goal of WS is to use methods as humanely as possible to effectively resolve requests for assistance to reduce damage and threats to human safety. WS continues to evaluate methods and activities to minimize the potential pain and suffering of those methods when attempting to resolve requests for assistance.

As mentioned previously, some methods have been stereotyped as "humane" or "inhumane". However, many "humane" methods can be inhumane if not used appropriately. For instance, a cage trap is generally considered by most members of the public as "humane". Yet, without proper care, live-captured wildlife in a cage trap can be treated inhumanely if not attended to appropriately.

Therefore, WS' mission is to effectively address requests for assistance using methods in the most humane way possible that minimizes the stress and pain of the animal. WS' personnel are experienced and professional in their use of management methods and methods are applied as humanely as possible.

## **VI. ALTERNATIVES THAT WERE FULLY EVALUATED**

The following three alternatives were developed to respond to the issues. A detailed discussion of the effects of the Alternatives on the issues is described in the EA; below is a summary of the Alternatives.

### ***Alternative 1 – Adaptive Integrated Mammal Damage Management Program (Proposed Action/No Action)***

The proposed action would continue the current program of employing an integrated damage management approach using effective methods, as appropriate, to reduce conflicts associated with those mammal species addressed in the EA. An integrated damage management strategy would be recommended and used, encompassing the use of practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on people, other species, and the environment. Under this alternative, WS would provide both technical assistance and operational damage management services. Non-lethal methods would be given first consideration in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy.

### ***Alternative 2 – Mammal Damage Management through Technical Assistance Only***

This alternative would only allow WS to provide technical assistance and make recommendations to individuals or agencies requesting mammal damage management in Kentucky. Technical assistance by WS would place the immediate burden of operational damage management work on other federal, state, or county agencies, private businesses, and property owners. Assistance from those entities may or may not be available. Technical assistance would occur by providing interested cooperators with information and technical advice on the use of methods available to alleviate or prevent mammal damage.

### ***Alternative 3 - No WS' Involvement in Mammal Damage Management***

This alternative would result in no assistance from WS in reducing mammal damage in Kentucky. WS would provide no technical assistance or operational damage management services. WS would not respond to any requests for mammal damage management assistance and would refer all requests to other government entities, local animal control agencies, or private businesses or organizations. Assistance may or may not be available from any of those entities. Damage management methods could be implemented by resource owners, private businesses, or other entities.

## **VII. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL**

Additional alternatives were also evaluated but not considered in detail. The alternatives analyzed but not in detail with rationale are summarized from the EA below:

### ***Lethal Mammal Damage Management Only By WS***

This alternative would require WS to employ lethal methods only when responding to requests for assistance. Damage management using lethal methods only was eliminated from further analysis because some mammal damage problems can be resolved effectively through non-lethal means. Additionally, lethal methods may not always be available for use due to safety concerns or local ordinances prohibiting the use of some lethal methods, such as the discharge of firearms.

### ***Compensation for Mammal Damage Losses***

The compensation alternative would require the establishment of a system to reimburse persons impacted by mammal damage. Compensation requires large expenditures of money, even when compensation is less than full market value when the cost of labor to investigate and validate all damage claims is included. Not all damage situations can be conclusively verified, such as irrefutably attributing disease outbreaks to the presence of mammals to livestock, even though mammals are a likely cause. There would be little incentive for resource owners or managers to limit damage through tolerance or by implementing damage management methodologies. Compensation would not be practical for reducing threats to human safety.

### ***Short Term Eradication and Long Term Population Suppression***

Eradication and suppression as a general strategy for managing mammal damage was not considered in detail due to: 1) state and federal agencies with jurisdiction over mammal species or an interest in mammal species oppose eradication or suppression of any native wildlife species, 2) the eradication or suppression of native species is unacceptable to most of the public, and 3) many mammal species are abundant and found statewide which would require eradication or suppression over large geographical areas.

### ***Bounties***

Payment of funds (bounties) for killing some mammals suspected of causing economic losses has not been supported by Kentucky resource agencies as well as most wildlife professionals for many years. Bounties were not considered in detail due to the following reasons: 1) bounties are ineffective at controlling damage, especially over a wide area such as Kentucky, 2) circumstance surrounding the take of animals are typically arbitrary and completely unregulated, 3) it is difficult to assure animals claimed for bounty were not taken from outside the damage management area, and 4) WS' currently does not have the authority to establish a bounty program in Kentucky.

## **VIII. DECISION AND RATIONALE**

Based on the analyses of the issues and the alternatives to address those issues in the EA, including individual and cumulative impacts of those alternatives, the following decision has been reached:

### ***Decision***

I have carefully reviewed the EA prepared for this proposal and the input from the public involvement process. I find the proposed program to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human environment are likely to occur from the proposed action, nor does the proposed action constitute

a major federal action. Therefore, the analysis in the EA remains valid and does not warrant the completion of an Environmental Impact Statement.

Based on the EA, the issues identified are best addressed by selecting Alternative 1 (Proposed Action/No Action) and applying the associated mitigation measures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) mammal damage management using a combination of the most effective methods and does not adversely impact the environment, property, and/or non-target species, including threatened and endangered species; (2) it offers the greatest chance at maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of mammal damage management activities, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action (Alternative 1) as described in the EA.

### ***Finding of No Significant Impact***

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) will have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an Environmental Impact Statement should not be prepared. This determination is based on the following factors:

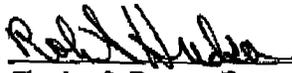
1. Mammal damage management as conducted by WS in Kentucky is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. Risks to the public from WS' methods were determined to be low in a formal risk assessment (USDA 1997).
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of WS' standard operating procedures and adherence to 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 there is some opposition to wildlife damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through this assessment. The EA analyzed cumulative effects of WS' mammal damage management on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of Kentucky.

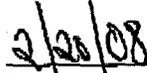
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS has determined that the proposed program would not adversely affect any federal or state listed threatened or endangered species. This determination is based upon concurrence from the USFWS that the program will not likely adversely affect any threatened or endangered species in Kentucky.
10. The proposed action would be in compliance with all federal, state, and local laws.

***Rationale***

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety and the best available science. The foremost considerations are that: 1) mammal damage management will only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in Kentucky will continue to provide effective and practical technical assistance and direct management techniques that reduce damage.

Copies of the EA are available upon request from USDA/APHIS/WS, 537 Myatt Drive, Madison, Tennessee 37115 or by visiting the APHIS website at [http://www.aphis.usda.gov/wildlife\\_damage/nepa.shtml](http://www.aphis.usda.gov/wildlife_damage/nepa.shtml).

  
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Charles S. Brown, Eastern Regional Director  
USDA/APHIS/WS

  
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Date

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The Wildlife Society. 1992. Conservation policies of The Wildlife Society: A stand on issues important to wildlife conservation. The Wildlife Society, Bethesda, Md. 24pp.

USDA. 1997 (revised). Animal Damage Control Program - Final Environmental Impact Statement - Revised October 1997. USDA/APHIS/WS-Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD 20737.